THE DEVELOPMENT OF A STRUCTURAL EQUATION MODEL OF COMMUNICATION FACTORS FOR HEALTH COMMUNICATION OF COMMUNITY

Kirati Kachentawa

A Dissertation Submitted in Partial Fulfillment of the Requirements for the Degree of Doctor of Philosophy (Communication Arts and Innovation)
The Graduate School of Communication Arts and Management Innovation
National Institute of Development Administration
2016
THE DEVELOPMENT OF A STRUCTURAL EQUATION MODEL OF COMMUNICATION FACTORS FOR HEALTH COMMUNICATION OF COMMUNITY

Kirati Kachentawa
The Graduate School of Communication Arts and Management Innovation

Associate Professor Patchane Cheyjunya Major Advisor
(Patchane Cheyjunya)

The Examinining Committee Approved This Dissertation Submitted in Partial Fulfillment of the Requirements for the Degree of Doctor of Philosophy (Communication Arts and Innovation).

Professor Committee Chairperson
(Yubol Benjarongkij, Ph.D.)

Associate Professor Committee
(Patchane Cheyjunya)

Associate Professor Committee
(Duangporn Kamnoonwatana)

Professor Dean
(Yubol Benjarongkij, Ph.D.)
July 2016
This research was meant to study (1) the means of communication based on three paradigms of health in successful communities; (2) to analyze the communication factors that lead to the success stories of communities in health communication; and (3) to develop and validate the congruence of the measurement model and the structural equation model of communication factors for health communication of community with empirical data. Research methodology was mixed method separated into 2 phases the following: Phase I: qualitative research method that employed in-depth interview technique for data collection; for this purpose, researcher selected 20 key informants drawn from almost every facet involved in community health communication obtaining highest scores in 2014’s Area and Province-level assessment by Office of Disease Prevention and Control, 1st Area, consisting of (1) Bangyai district, Nonthaburi; (2) Phra Nakhon Si Ayutthaya district, Phra Nakhon Si Ayutthaya; and (3) Nong Sua district, Pathum Thani, and Phase II: quantitative research method that employed close-ended questionnaire for collecting data from 400 respondents who performed in three successful districts. Data analysis conducted by employing Frequency, Percentage, and Standard Deviation in descriptive statistical analysis and Structural Equation Model technique (SEM) in inferential statistical analysis.
Responses revealed that health communication behavior in successful communities still congruently utilized three paradigms of health: Education, Promotion, and Communication. As for communication factors found they corresponded to the Concept of Communication Components consisting of five: (1) public health officers extended their viewpoints toward other sectors to be health communicators and supported participation in health communication operations; (2) variety purposes for exhibiting message conforming to the requirements of locals; (3) integration of various types of media in community; (4) active role of locals in order to be a part of health communicators; and (5) social context based on normal and unusual situations affecting the differences of health behavior expression. In the part of Structural equation model analysis results found: 1) the structural equation model of communication factors in promoting the participatory communication to create health communication behavior of community was in accordance with empirical data according to assumed hypothesis, by passing the determined criteria from 8 indicators, out of 13. The model’s fit indicators were accepted the following: (1) Chi-Square/df = 3.99 (< 5.00), (2) Root Mean Square Residual = 0.032 (< 0.05), and (3) Standard Root Mean Square Residual = 0.039 (< 0.05), (4) Normed Fit Index = 0.98 (> 0.95), (5) Non-normed Fit Index = 0.98 (> 0.95), (6) Comparative Fit Index = 0.98 (> 0.95), (7) Incremental Fit Index = 0.98 (> 0.95), (8) Relative Fit Index = 0.97 (> 0.95). Besides, 2) communication factors variable (COMMUNICATION) had no direct effect on health behavior in community variable (HEALTH BEHAVIOR) but had a positive indirect effect on health behavior in community variable (HEALTH BEHAVIOR) through community satisfaction in regards to acquiring health communication information variable (SATISFACTION), role of personal media in order to be health communication leader in community variable (HEALTH LEADER), and participatory communication in community variable (PARTICIPATION).
ACKNOWLEDGEMENTS

First of all, I respectfully give thanks to National Institute of Development Administration (NIDA) for granting me Full Scholarship covering all my registration fee since I started my Ph.D. path in the first semester; after that, I acquired Research Fund for Doctoral dissertation from Annual Government Statement of Expenditure, if I didn’t get such two chances, it would be difficult to arrive at this point.

This Dissertation process went well with the kindness and assistance of Assoc. Prof. Patchanee Cheyjunya, the major thesis advisor, who was my advisor since I had studied Master’s degree at Faculty of Communication Arts, Chulalongkorn University and provided profitable knowledge, practical advice, intimacy, and other matters to encourage me; what’s more, she still gave me an encouragement to do research and publish international article. Furthermore, I respectfully give thanks to Prof. Dr. Yubol Benjarongkij, Dean and my Committee Chairperson and Assoc. Prof. Duangporn Kamnoonwatana, Committee, who provided me beneficial knowledge and practical guidance during Dissertation examination.

I give thanks for officers of Disease Prevention and Control, 1st area, Bangkok, Bang Yai district public health officers, Ayuthaya’s central hospital officer, and Bueng Ba subdistrict administrative organization officers for assisting me to corporate key informants, prepare area-level assessment information so that data collection process could be done well.

I give thanks for Ms. Jaruwan Kittinaraporn (P’ Aey, Ph.D. #3) and Mr. Athitaya Somlok (Nut, Ph.D. #4) for always taking me to interview appointment with your pleasure and welcomeness, in this opportunity, I thanks for your broad-mindedness and sincerity giving to me.

Furthermore, I give thanks to my close friends (Singhdam #56 Gang) including junior friends at Faculty of Political Science, Chulalongkorn University to keep it up and also give joy and encouragement to me; moreover, I give a special thanks to Asst. Prof. Dr. Narisara Puengposop, my senior (Singhdam #49), who sacrificed to read my revised research article and gave advice for better revising in
order to receive the acceptance and publish my article in International Journal of Behavioral Science (IJBS)

Last but not least, I respectfully give thanks to my parents, my brother, including my little niece and nephew to give me encouragement, financial support, and other things that were indescribable. So, I will try to do my best both in academic career and in daily life to replace boundless kindness of family member.

Kirati Kachentawa

December 2016
TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABSTRACT</td>
<td>iii</td>
</tr>
<tr>
<td>ACKNOWLEDGEMENTS</td>
<td>v</td>
</tr>
<tr>
<td>TABLE OF CONTENTS</td>
<td>vi</td>
</tr>
<tr>
<td>LIST OF TABLES</td>
<td>ix</td>
</tr>
<tr>
<td>LIST OF FIGURES</td>
<td>xi</td>
</tr>
</tbody>
</table>

CHAPTER 1 INTRODUCTION

1.1 Background of the Study                     1
1.2 Research Questions                          8
1.3 Research Objectives                         9
1.4 Hypothesis                                 9
1.5 Scope of Research                          9
1.6 Operational Definitions                    10
1.7 Significance of the Study                  14

CHAPTER 2 LITERATURE REVIEW

2.1 Introduction                               15
2.2 Concept of Health Communication            16
2.3 Concepts of Senders’ Communicative Factors 32
   2.3.1 Components of Communication            32
   2.3.2 Roles of Personal Media               33
   2.3.3 Media in Community                    37
2.4 Concepts and Theories of Receivers         41
   2.4.1 Uses and Gratifications Theory        42
   2.4.2 Concept of Media Exposure             46
2.5 Theories of Relationship between Attitudes and Receivers’ Behavior 49
2.5.1 Knowledge, Attitudes, and Practice Theory (K-A-P Theory) 49
2.5.2 Theory of Reasoned Action (TRA Theory) 50
2.6 Concept of Networking 52
2.7 Concept of Participatory Communication 57
2.8 Concept of Structural Equation Model Analysis 63
2.9 Related Research 66
2.10 Conceptual Framework 75

CHAPTER 3 RESEARCH METHODOLOGY 77
3.1 Step I: Qualitative Method 77
3.2 Step II: Quantitative Method 87
3.3 Criteria and Assessment Score 99

“Disease Control Competent Districts” 2014, Area of Responsibility, Office of Disease Prevention and Control, 1st Area, Bangkok

CHAPTER 4 QUALITATIVE RESULTS 108
4.1 Part I: Research Setting Context 108
4.2 Part II: The Analysis of Qualitative Results 115

CHAPTER 5 QUANTITATIVE RESULTS 174
5.1 Part I: The Analysis of Qualitative Results together with The Revision of Concepts, Theories, and Related Literatures in order to Improve and Develop the Structural Equation Model of Communication Factors for Health Communication of Community 174
5.2 Part II: Descriptive Statistical Analysis 179
5.3 Part III: Inferential Statistical Analysis 195

CHAPTER 6 CONCLUSION, DISCUSSION, AND RECOMMENDATIONS 209
6.1 Part I: Conclusion for the Qualitative and the Quantitative Studies 209
6.2 Part II: Discussion 238
6.3 Part III: Recommendations 264
BIBLIOGRAPHY 267

APPENDICES 276

Appendix A  Questionnaire  277
Appendix B  Guided Questions  302
Appendix C  Pictures of Media in Community  313

BIOGRAPHY 327
## LIST OF TABLES

<table>
<thead>
<tr>
<th>Tables</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Patients with Surveillance Diseases in Each Quarter in 2015</td>
<td>3</td>
</tr>
<tr>
<td>2.1 The Different Comparison between Group, Organization and Network</td>
<td>54</td>
</tr>
<tr>
<td>3.1 Key Informants’ Name List Those Who Involved in Community Health Communication Operation</td>
<td>81</td>
</tr>
<tr>
<td>3.2 Indicator Criteria to Examine the Congruence between the Structural Equation Model and Empirical Data</td>
<td>98</td>
</tr>
<tr>
<td>3.3 Province-Level Assessment Conclusion, 2014 by Office of Disease Prevention and Control, 1st Area, Bangkok</td>
<td>103</td>
</tr>
<tr>
<td>3.4 Conclusion form of Districts with the Highest Score Based on District Assessment in Phra Nakhon Si Ayutthaya Province of “Disease Control Competent District” in 2014 by Office of Disease Prevention and Control, 1st Area, Bangkok: Phra Nakorn Sri Ayutthaya District, Phra Nakhon Si Ayutthaya Province</td>
<td>104</td>
</tr>
<tr>
<td>3.5 Conclusion form of Districts with the Highest Score Based on District Assessment in Nonthaburi Province of “Disease Control Competent Districts” 2014 by Office of Disease Prevention and Control, 1st Area, Bangkok: Bangyai District, Nonthaburi Province</td>
<td>105</td>
</tr>
<tr>
<td>3.6 Conclusion form of Districts with the Highest Score Based on District Assessment in Pathum Thani Province of “Disease Control Competent Districts” 2014 by Office of Disease Prevention and Control, 1st Area, Bangkok: Nong Sua District, Pathum Thani Province</td>
<td>106</td>
</tr>
</tbody>
</table>
3.7 Conclusion form of Districts with the Highest Score Based on District Assessment in Nonthaburi Province of “Disease Control Competent Districts” 2015 by Office of Disease Prevention and Control, 1st Area, Bangkok: Bangyai District, Nonthaburi Province

4.1 Means of Communication from Each of the Health Behavior Paradigms

4.2 Summary of the Major Factors That Lead to the Success Stories of Communities in Health Communication

5.1 Observed Variables of Each Latent Variable

5.2 Frequency and Percentage Classification of Respondents’ Demographic Characteristics

5.3 Frequency of Media Exposure Related to Health Communication Information

5.4 Level of Agreement with Providing Health Communication Information by Media in Community

5.5 Level of Agreement with Role of Personal Media in order to Be Health Communication Leader in Community

5.6 Level of Community Satisfaction in regards to Acquiring Health Communication Information

5.7 Level of Participatory Communication in Community Health Communication

5.8 Level of Agreement and Practice for Health Behavior of Community

5.9 Factor Loading Value of Each Observed Variable

5.10 Causal Relationship among Observed Variables in Structural Equation Model

5.11 The Analysis Results of Direct Effects, Indirect Effects, and Total Effects among Endogenous and Exogenous Variables within the Structural Equation Model
## LIST OF FIGURES

<table>
<thead>
<tr>
<th>Figures</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1 Health Pagoda</td>
<td>29</td>
</tr>
<tr>
<td>2.2 Two-Step Flow of Information</td>
<td>36</td>
</tr>
<tr>
<td>2.3 Diversity of Media Types in Community</td>
<td>37</td>
</tr>
<tr>
<td>2.4 Objectives of Uses and Gratifications Theory</td>
<td>43</td>
</tr>
<tr>
<td>2.5 Three Selective Processes</td>
<td>48</td>
</tr>
<tr>
<td>2.6 The Theory of Reasoned Action Model</td>
<td>51</td>
</tr>
<tr>
<td>2.7 The Definition of “Group/ Organization”</td>
<td>53</td>
</tr>
<tr>
<td>2.8 The Meaning of “Network”</td>
<td>53</td>
</tr>
<tr>
<td>2.9 Characteristics of Participatory Communication</td>
<td>59</td>
</tr>
<tr>
<td>2.10 The Participation of People in Community Each Process</td>
<td>62</td>
</tr>
<tr>
<td>2.11 Example of the Research Framework for Path Analysis</td>
<td>63</td>
</tr>
<tr>
<td>4.1 The Overlap and Different Points of Means of Communication Model</td>
<td>140</td>
</tr>
<tr>
<td>5.1 Structural Equation Model of Communication Factors</td>
<td>177</td>
</tr>
<tr>
<td>for Health Communication of Community –the Development and Validation</td>
<td></td>
</tr>
<tr>
<td>from Qualitative Results together with Reviewing Concepts, Theories,</td>
<td></td>
</tr>
<tr>
<td>and Related Literatures</td>
<td></td>
</tr>
<tr>
<td>5.2 The Examination of Construct Validity through Confirmatory Factor</td>
<td>196</td>
</tr>
<tr>
<td>Analysis (CFA)</td>
<td></td>
</tr>
<tr>
<td>5.3 Direct Effect and Path Coefficient Effect Values within the</td>
<td>198</td>
</tr>
<tr>
<td>Structural Equation Model</td>
<td></td>
</tr>
<tr>
<td>5.4 Structural Equation Model of Communication Factors for</td>
<td>199</td>
</tr>
<tr>
<td>Health Communication Behavior of Community from LISREL’s Output</td>
<td></td>
</tr>
<tr>
<td>Analysis</td>
<td></td>
</tr>
<tr>
<td>6.1 Characteristics of Health Education Paradigm</td>
<td>211</td>
</tr>
<tr>
<td>6.2 Characteristics of Health Promotion Paradigm</td>
<td>213</td>
</tr>
</tbody>
</table>
6.3 Characteristics of Health Communication Paradigm 216
6.4 Levels of Participation and Participants in Each Level of Every Sector in Community 219
6.5 Characteristics of Sender/Community Leader 222
6.6 Attributes of Media in Community and Media Integration 224
6.7 Levels of Participation and Participants in Each Step of People Sector 227
6.8 Two-Step Flow of Information in Communication for Exercise/People’s Activity Participation 228
6.9 Characteristics of Active audience 230
6.10 Synthesis between Quantitative and Qualitative Results 263
Communication Factors for Health Communication of Community
CHAPTER 1

INTRODUCTION

1.1 Background of the Study

Having “good health” is desirable. “Health” has been defined by varied and sometimes common dimensions by many scholars. Thapin Patcharanuruk (2003, as cited in Kanjana Kaewthep, Kanittha Nilphueng, & Rattikan Jenjad, 2013, pp. 159-163) has categorized health definitions into five aspects: 1) being without sickness, 2) strength, 3) abilities to perform tasks, 4) balance of elements and other factors, and 5) having good social relationship. Wijit Wongwareethip (2008) has made a notion that “health” should be defined variously and shouldn’t rely on a specific definition.

At present the most legitimate health definition is the one proposed by World Health Organization (WHO). The organization defines good health as the state of being physically and mentally mature as well as wellness of being in the society, not only the state of being free from illnesses or disability. In addition good health is achieved through a holistic approach. Kanjana Kaewthep, Kanittha Nilphueng, Rattikan Jenjad (2013, p. 165) expands the meaning of holistic health that it is the positive standpoint of health, focusing on “continuous well-being of life,” which refers to balance, correlation, harmony, and dependence between mental and soul dimensions.

WHO’s definition of health is in line with the policies of the National Health Development Plan stated in the Eleventh National Economic and Social Development, 2012-2016. Drawing upon the policies, “All citizen should healthy, through collaboration of sufficient health systems, be equitable, leading to a healthy society.” The “sufficient health system” refers to the processes of health development that results in wellness of body, mind, society, and intellect by high quality health services. The services must be standardized, vigilant, adequate, and accessible. Public participation is integral with the aim to empower competency of the public,
communities, localities, alliances, including promote good health and prevent or decrease tenable illnesses that are caused by behaviors. These must be conducted by the employment of Thai local wisdom. In addition participation is required to solve one’s health problems or those of the society (Ministry of Public Health, Office of Permanent Secretary, 2012, pp. 23-26; The Presentation Stage of Innovative Health Communication Studies, 2007).

Traditionally, Thai people tended to perceive that healthcare must be exclusively conducted by public health officers. This results to limitation of practices to “healing” instead of “preventing or promoting well-being”. Whereas doctors, nurses, or medicine are no use provided that people do not change their behaviors. Besides, numerous Thai people become physically and mentally ill as a result from family violence and disturbing environmental context. Lots of money has been paid for health service costs. As a result the country wastes a large sum on medical fees for the public. The perpetuation of this crisis results in the loss of opportunities to develop healthcare standard. Therefore, the focus should be on protection rather than medication. Participation of communities, localities, government organizations, private sectors, and academic institutes must be promoted for the publics’ good health in peaceful harmonious environment (National Health Act, 2007).

According to the government report, “Thai Society during the 4th Quarter Year 2015 (As shown in Table 1.1), the total number of patients from disease surveillance in 2015 was 492,207 or 755.8 per 100 thousands individuals. The figure grew 25.4 percent from 2014. The number constituted of 144,952 patients with hemorrhagic fever, which was 4 times higher from 41,082 in 2014. The disease had spread since the 3rd quarter of 2015 mostly among 15-24 years old people. Besides, there were 216,959 patients with pneumonia, which were 1.5 times higher from 2015 (Office of the National Economic and Social Development Board, 2016, pp. 8-9).
Table 1.1 Patients with Surveillance Diseases in Each Quarter in 2015

<table>
<thead>
<tr>
<th>Surveillance Diseases</th>
<th>2015 (unit: amount)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1st quarter</td>
</tr>
<tr>
<td>Pneumonia</td>
<td>56,556</td>
</tr>
<tr>
<td>Dengue Fever</td>
<td>7,538</td>
</tr>
<tr>
<td>Hand Foot Mouth Disease</td>
<td>9,217</td>
</tr>
<tr>
<td>Influenza</td>
<td>24,206</td>
</tr>
<tr>
<td>Dysentery</td>
<td>1,804</td>
</tr>
<tr>
<td>Measles</td>
<td>224</td>
</tr>
<tr>
<td>Leptospirosis</td>
<td>283</td>
</tr>
<tr>
<td>Encephalitis</td>
<td>164</td>
</tr>
<tr>
<td>Cholera</td>
<td>2</td>
</tr>
<tr>
<td>Meningococcal Meningitis</td>
<td>4</td>
</tr>
<tr>
<td>Rabies</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td><strong>99,999</strong></td>
</tr>
<tr>
<td>Total figures of all the quarters</td>
<td><strong>492,207</strong></td>
</tr>
</tbody>
</table>

Source: Office of the National Economic and Social Development Board, 2016, p. 9.

In accordance to the information provided in the table, the figures of non-communicable diseases have been grown especially hypertension, diabetes, ischemic heart disease, stroke, and cancer. These diseases result from unhealthy lifestyle habits such as inadequate exercise, or insufficient consumption of vegetables or fruits. These health hazards can be prevented by exercising, having regular blood pressure and sugar level checkup, eating less sweet or salty food, avoiding smoking, drinking less alcohol as they are not caused by germs. (Office of the National Economic and Social Development Board, 2016, p. 9; Peterson & Lupton, 1996, pp. 89-145).
As a result of the realization of the actual causes of modern health problems, which include stress, social problems, and deteriorated environment, the Department of Disease Control, Ministry of Public Health has realized that only one health organization is inadequate to solve the problems. Therefore, they launched a project known as “The Development of Local Administration Network in Enhancing Disease Prevention” in 2006 targeting more in the local community areas. This is the initiative for “Active District for Long-term Disease Protection” started in 2011 through collaboration with other relevant health organizations and the local administrative units. The policy targeted at monitoring and control diseases as well as spreading heath threats, serious infectious illnesses, diseases that seem to escalate (History and Background of the Department of Disease Control, 2011). Consequently, in the fiscal year 2011 the Bureau of Planning, under the supervision of Department of Disease Control launched the “Active District in Long-term Disease Protection.” The active district was defined as “a district with systematically administrative protocols in effectively protecting and controlling health threats in the local community in a timely manner. These processes were made through the collaboration of public health sectors, local people, and the public. In addition, academic support has been provided by the establishments under the administration of Department of Disease Control (2011) for Provincial Public Health Centers for them to convey to the districts, sub-districts, to the communities. The knowledge transfer was conducted by district public health centers, province and district hospitals, health promotion hospitals in sub-districts along with local administrations aiming at enhancing local people to be competent in solving health problems and threats in a timely manner (Department of Disease Control, Bureau of Planning, 2013, pp. 1-3).

Later in 2014 the Bureau of Planning, Department of Disease Control, Ministry of Public Health had developed the administration of “Active District for Long-term Disease Protection” policy and named it as “District Health System: DHS.” The policy defines the district as a baseline unit and every sector in the district as whole units. The sectors are 1) public health sector including provincial public health divisions, provincial public health centers, provincial or district hospitals along with sub-district health promotion hospitals, 2) local administrations such as municipalities, sub district administrations, 3) regional bureaucratic sector, for
example, district chief, 4) private sector including businesses, non-government organizations, clubs, associations, or foundations. 5) public sector such as public health volunteers, community leaders, and 6) other government and private sectors e.g. village headmen, community head, schools, mass media, department of disaster prevention and mitigation, and other organizations in the district or sub-districts, etc. Every sector aims at promoting health by a holistic approach through supporting, protecting, healing, and improving. The ultimate aim of the policy was the occurrence of “healthy district,” or in other words people in the district had better health and were responsible for their health. Collaboration of every division is required in addition to those of public health departments. Moreover, DHS is driving its strategy based on the WHO Vision and National Economic and Social Development Plan No. 11 for 2012-2016 (Department of Disease Control, Bureau of Planning, 2014, pp. 1-5).

In this study, the evaluation criteria of DHS in 2014 by the Department of Disease Control to award the best role model district from all 12 areas in the final round has been employed for research setting selection. The criteria have recently been modified to challenge the participants for them to be more eager to monitor and prevent diseases successfully. By doing so the organization has added more points for the sub-criteria of all major evaluation criteria as follows:

1) The efforts start from the modification of self-evaluation for district judges, which is the first stage of the evaluation. The five evaluation criteria of area level have been employed for each district during 2011-2016. The criteria include; 1) health threat protection and control committee, 2) a well-performing epidemiology team, 3) plans, monitoring, and evaluative protocol, 4) resource gathering and funding from relevant organizations, and 5) successful protection of serious diseases indicated in the policy as well as any current health issues in the area. A district would pass provided that it obtained 80% scores. However, in 2014 the first stage self-evaluation criteria were adjusted. The major change was the employment of different core indicators from those employed in the area level. The variations were; 1) level 1 cooperation among districts, 2) level 2 targeting at both service receivers and providers, 3) level 3 contribution of resources and personnel development, 4) health servicing in required circumstances, and 5) participation of network and communities. It was indicated that any districts would pass the evaluation when exceeded level 3, contribution of resources and personnel development.
2) The increase of all 5 core indicator scores from 50 to 100

3) The addition of minor indicators to encourage participation from any other sectors except public health profession and local administrations such as schools, foundations, associations, clubs, and etc.

4) The inclusion of minor indicators for situation analysis in order to identify problems, prioritize them, and seek for the solutions

5) The measurement of disease control and protection achievement according to policies of the Ministry of Public Health, for example, from 1 to 2 illnesses as well as local health issues from 1 to 3 illnesses

As a result, the research setting is the area under the supervision of the Office of Disease Prevention and Control, 1st area, Bangkok in which four provinces are included: 1) Nonthaburi, 2) Pathum Thani, 3) Phra Nakhon Si Ayutthaya, and 4) cooperation with Bangkok in some aspects. The area is selected as it is outstanding for many reasons. To begin with, the administration of this division is different from the others since it deals with big cities, which are complicated and populated. Next, they tend to have a high rate of migration and a large passive population. Besides, people in each of these provinces also have heterogeneous socio-economic status when compared to other areas. Hence, health communication in the setting becomes more difficult, unique, and challenging than others. In addition the Office of Disease Prevention and control, 1st area (2014a), Bangkok cooperates with Bangkok, the capital city of the country, which is governed uniquely as follows:

1) The pilot administration of “Active District for Long-term Disease Protection” policy in Bangkok in 2016

2) Cooperation with alliances such as health offices, Bangkok Metropolitan Administration, Public Health Service Center 24, Health Center 1 Bangkok, Bang Khen, and Thai Health Promotion Foundation aiming at the development of health promotion for people in big cities who live in condominiums through the campaign, “Healthy Condo Model” taking “One Health” as a baseline concept with the aim to improve healthcare system and evaluate health condition of people in the residence, as well as promote better life and good health, Development and improvement of leprosy services including monitoring in Bangkok including assistance for those disabled from the illness through a campaign, “Leprosy in the
City: Honor and Life Quality of Leprosy Patients who Required Treatments. This is done in collaboration with the Bangkok Public Health Center, Disease Control Division, and Rat Phracha Samasai Institute in planning the service development for those patients starting from patient identification by public health centers under supervision of Bangkok Municipality to provide prompt treatment that can lessen disability rates, as well as to supply specialist services or the transfer of patients with complications (Thanya Rodsuk, Personal Communication August 5, 2015; Office of Disease Prevention and Control, 1st Area, Bangkok (2014a, pp. 56-57, pp. 61-62).

3) Consequently, the researcher has employed purposive sampling technique to select three research setting areas under the supervision of Office of Disease Prevention and Control 1st area, Bangkok. The research setting where samples are drawn include 1) Phra Nakhon Si Ayutthaya District, Phra Nakhon Si Ayutthaya Province, which was awarded the best “Active District in Long-term Disease Protection” in 2014 by Office of Disease Prevention and Control, 1st area, Bangkok, 2) Bang Yai District, Nonthaburi Province, which obtained the highest scores of all the districts in the province by the same division, and 3) Nong Sua District, Pathum Thani Province, which acquired the highest assessment scores of the province by the division. Moreover, all of the three districts were scored similarly both in the district and province levels (see details of indicators and scores of each district on page 116, Part III of Chapter 3.) Hence, the researcher has to conduct a survey to find out perspectives of those related in health communication in the community as well as successful cases. The survey has found that three health paradigms are employed. In this study the “Health Communication Model” has been adopted to categorize health behavior of community people.

Besides, “health communication” also covers influencing factors on media exposure that feature health content through traditional and new media, as well as satisfaction of those people for the media characteristics, which serves as the channel to transfer healthcare information to the public. In addition, it refers to participatory communication of related sectors together with health behavior of the community that can be classified into two aspects. The first is health behavior in unusual situations where in the researcher has found relationship between two sets of paradigm. They are “health behavior from the standpoint of health education and health promotion.”
Both of the concepts propose that people are required to rely on public health officers in unusual situations. For instance in health crisis such as the incident of epidemic, repeated accidents, new accidents, or when people get serious illnesses. In those contexts, people need to follow the instructions of the officers and cooperate with them, which is congruent to “health education paradigm.” On the other hand, when community people seem to perform unhealthy behavior, a campaign to “protect” instead of to “heal” after an infection by the public health officers will be launched. For instance a mask wearing campaign to prevent airborne infectious diseases, vaccination for diphtheria, tuberculosis, and influenza, as well as screening for diabetes, high blood pressure, breast cancer as indicated in “health promotion paradigm.” Second, the health behavior in normal situations in which people are actively engaged in self-care. People who are already healthy prefer to stay fit by exercising, having healthy food, avoiding sweet, salty, or greasy food according to “health communication paradigm”. These two types of health behavior are still in practice in the community. However, the employment of each health behavior type depends on the situations. Furthermore, the three districts are prototypes for successful cases, which represent the extent in which effective health communication is performed.

In line with the aforementioned part, qualitative data of this present study will assist in the design of the questionnaire and the structural equation model. In addition, the literature review provides knowledge about relevant factors that encourage for health behavior of community. As a result, the model will be holistic and correlated to real contexts of the research settings and could become a prototype for metropolises aiming at generating good health behavior. However, the employment of the proposed structural equation model as a guideline in other settings requires consideration of many factors such as community media or social and cultural factors, which are required to be similar.

1.2 Research Questions

1) How does the communications based from the three paradigms of health lead to successful communities?
2) What communication factors that lead to the success stories of communities in health communication?

3) Were the measurement model and the structural equation model of communication factors for health communication of community congruent with empirical data?

1.3 Research Objectives

1) To study the means of communication based on the three paradigms of health in successful communities.

2) To analyze the communication factors that lead to the success stories of communities in health communication.

3) To develop and validate the congruence between the measurement model and the structural equation model of communication factors for health communication of community with empirical data.

1.4 Hypothesis

The measurement model and the structural equation model of communication factors for health communication of community which researcher developed and validated through this study were found to be congruent with empirical data.

1.5 Scope of the Study

The study, “The Development of a Structural Equation Model of Communication Factors for Health communication of Communities” employs mixed-methods design. The study consists of 2 phases. The first phase uses qualitative method in which an in-depth interview is conducted. The key informants are representatives of all parties relating to health communication in the communities. Those people are 1) public health officers, 2) local administrative officers, and 3) public leaders. To put it simply, the key informants are (1) Officers from Office of Disease Prevention and Control, 1st area, Bangkok, (2) Provincial public health
officers, (3) District public health officers, (4) Central hospital officers, (5) Officers in sub-district hospitals, (6) Municipality officers, (7) Sub-district administration officers, (8) Surveillance and rapid response teams (SRRTs), and (9) Public health volunteers and Community leader. The sampling technique yielded the selection of 20 people from each group. A semi-structured interview was conducted with the underlying rationale that the researcher could be more flexible in adding questions not previously set. Then the qualitative data from the interview along with knowledge from literature review would be synthesized to develop a set of questionnaire items along with the structural equation model of communication factors for health communication of community in the second phase. The practice can examine the consistency between the research model and empirical data. One the other hand, in the 2nd phase the quantitative method is employed. The survey research method was selected and a set of close-ended items developed for the questionnaire was adopted for data collection. The participants included people who are involved with community health communication in 1) Phra Nakhon Si Ayutthaya District, Phra Nakhon Si Ayutthaya Province, 2) Bang Yai District, Nonthaburi Province, and 3) Nong Sua District, Pathum Thani Province. The respondents included (1) district public health officers, (2) central hospital officers, (3) officers in sub-district hospitals, (4) municipality officers, (5) sub-district administrative officers, (6) surveillance and rapid response teams (SRRTs), (7) public health volunteers and community leader, and (8) the public playing their roles in community health communication who obtain healthcare information in the community.

1.6 Operational Definitions

1) Structural Equation Model (SEM) refers to a prototype of causal relationship among structural variables based on theories and previous studies that result in the hypothetical investigation to study the congruence between the research model and empirical data along with the investigation of direct and indirect influences of the variables in the model.
2) Communication Factors include 1) frequencies of exposure to health information from community media of people who are involved with health communication in the community including; (1) Phra Nakhon Si Ayutthaya District, Phra Nakhon Si Ayutthaya Province, (2) Bang Yai District, Nonthaburi Province, and (3) Nong Sua District, Pathum Thani Province through community media. The informants would be drawn from 1) personal media such as public health officers, regional civil servants, local administrators, public health volunteers, community leaders, recovered patients, recovered patients, NGOs’ officers members, teachers, students, neighbours, relatives, and the public, 2) special media such as brochures, leaflets, vinyl board, poster, 3Ds media, stickers, calendars, bicycles, and publicity vehicles, 3) community media including local media, wire broadcasting/transition towers, local televisions, local radios, public health meetings, and village cafes, 4) mass media such as televisions, and newspapers, 5) activity media for instance meetings, trainings, plan preparing/projects and health activities, and 6) new media such as websites, search engines including Google/Yahoo and applications such as LINE, Facebook, and You Tube. Secondly, opinions of people relevant to community health communication on qualifications of community media. This would be based on 3 aspects including: 1) skill and knowledge of sender towards health communication, 2) Attitude of sender towards receiver and health communication content, and 3) Sender's consideration of social and cultural context to communicate health issues.

3) Community Satisfaction in the Acquisition of Health Communication Information refers to the gratification of people in relation to community health communication. This would include the population from people in 1) Phra Nakhon Si Ayutthaya District, Phra Nakhon Si Ayutthaya Province, 2) Bang Yai District, Nonthaburi Province, and 3) Nong Sua District, Pathum Thani Province in health information from community media. The information must satisfy the need of community people and can raise their gratification. The satisfaction criteria covers 4 aspects as follows: 1) obtaining information, knowledge and advice related to health promotion, 2) obtaining health information consists with community’s taste and needs, 3) seeing a proper model from health senders, 4) two-way communication and participation in health communication.
4) Role of personal media personnel in order to be health communication leader in the community consists of the mission and responsibilities of “personal media personnel” in the community, which include: 1) Phra Nakhon Si Ayutthaya District, Phra Nakhon Si Ayutthaya Province, 2) Bang Yai District, Nonthaburi Province, and 3) Nong Sua District, Pathum Thani Province. The roles are not limited to the public health officers. However, they refer to those of people related to health communication in other sectors including regional civil servants, personnel in local administration organizations, community headmen, community volunteers, people who used to be ill, relatives/family members who take care of the patient, as well as teachers, students, neighbours, relatives, and the public. Personal media personnel are responsible for providing knowledge, suggestion, protective means and health promotion for people in the community. Qualified personal media personnel are required to achieve 4 assessment criteria: 1) as a role model of health promotion, 2) as a supporting health activities, projects, or networking, 3) as a public hearing post and having public mind to take up health operations, and 4) as an educating and inspiring personnel of health promotion.

5) Participatory Communication in Community Health Communication refers to a facet of communication in which people in 1) Phra Nakhon Si Ayutthaya District, Phra Nakhon Si Ayutthaya Province, 2) Bang Yai District, Nonthaburi Province, and 3) Nong Sua District, Pathum Thani Province are allowed to be both the “senders” and the “receivers” in the entire communication process. The participation assessment criteria include 4 features: 1) 3 levels of participation in health communication with regard to (1) receiver level/exchange of opinions/interaction, (2) local media producer level/presenter and, (3) planning level and methods and policy identification, 2) Health information exchange is beneficial to all stakeholders, 3) equality in health communication from all people and agencies, and 4) decentralization of health content from public health officers to all stakeholders.

6) Health Behavior of Community is defined as the extent to which people are involved with health communication in 1) Phra Nakhon Si Ayutthaya District, Phra Nakhon Si Ayutthaya Province, 2) Bang Yai District, Nonthaburi Province, and 3) Nong Sua District, Pathum Thani Province. They expose themselves to health contents from traditional media, personal media personnel, as well as new media. This
includes the evaluation of personal media qualifications along with the satisfaction from the health information those media provide. Besides, this covers the extent those people perform as leaders of health information including their participation in health communication. These factors are “interrelated”. To put it simply, not only the exposure of community media results in the degree of satisfaction after obtaining the information, the satisfaction generates more exposure or the interest of being a leader in health communication. Similarly, the more people are interested in being health communication leaders, the more participation is activated. Consequently, the more participation results in more interest to become health communication leaders. With regard to community health behavior, two categories are proposed based on different characteristics of each community. First, health behavior in the unusual situation refers to “health behavior based on health education paradigm and health promotion paradigm”. These share a similar principle that people depend on health education professionals in abnormal situations, for example, during health crisis such as the spread of communicable diseases, re-emerging infectious diseases or emerging infectious diseases in the community. Besides, when people have serious diseases they are required to follow instructions from those personnel as stated in “health education paradigm.” Likewise, when there is tendency of occurrence of infectious disease in the community or people are likely to perform health threatening behaviors, those public health officers usually raise awareness of “protection” rather than “cure” after the infection, for example, a mask wearing campaign to prevent breath infectious diseases, vaccination for diphtheria, tuberculosis, and influenza, as well as screening for diabetes, high blood pressure, and breast cancer, etc. following “health promotion paradigm”. Second health behavior in normal situation in which people are active in self-care when they are still healthy and prefer to stay fit by exercising, having healthy food, avoiding sweet, salty, or greasy food, or relying on alternative medical services such as herb application, massage, sauna or massage with hot press, acupuncture, and meditation, etc. This includes the readiness in case of the health crisis incidents based on “health communication paradigm.”
1.7 Significance of the Study

1.7.1 Office of Disease Prevention and Control 1st area, Bangkok and their responsible areas could effectively apply the Structural Equation Model of Communication Factors for Health Communication of Community, which has been developed and investigated empirically. The practice could represent the communication factors that could encourage continuous and sustainable health behavior.

1.7.2 The Structural Equation Model of Communication Factors for Health Communication of Community has been developed based on the qualitative research results as well as concepts, theories, and relevant studies together with the quantitative research results. Consequently, the model could be a prototype for other big cities in which health behavior is promoted. The model could be applied as a baseline practice for health development in each community. However, the application is required to take into account the community media along with social and cultural factors, which must be similar to each other.

1.7.3 Public health officers could appropriately adopt and apply the Structural Equation Model of Communication factors for Health Communication of Community in their own areas.

1.7.4 Researchers, scholars, and people who are related to health communication could further develop the equation model and expand the knowledge of health communication, which will result in its advancement.
CHAPTER 2

LITERATURE REVIEW

The study, “The Development of a Structural Equation Model of Communication Factors for Health Communication of Community” has adopted theoretical concepts, theories, and previous studies as a basis for the framework. This part is aimed to provide an overview of these previous works. First, Concepts of Health Communication are outlined followed by Concepts of Senders’ Communication Factors. The later topic provides concepts and theories about receivers. Next, theories explaining the relationship between attitudes and receivers’ behaviors, concepts of networking, and participatory communication are presented. Likewise, concepts of structural equation model analysis from previous studies are explored. Finally, the section ends with the research framework for this study.

2.1 Introduction

It is believed that in order to holistically understand all the factors that influence health communication for community, communication models and theories need to be discussed. In addition psychology theories are required to provide additional explanations. Therefore, Thai and international health communication concepts are presented to provide an overview for the study. Next the means of health communication and different health behaviors described by various health paradigms in different settings are discussed. At the meantime, health communication cannot be successful without interaction between senders and receivers. Hence, the concepts and theories of senders and receivers’ communication factors are discussed. With regard to senders, the subtopics include the characteristics of senders, roles and responsibilities of personal media, and media in communities. In terms of receivers, the Uses and Gratifications Theory and concepts of media exposure are included. In relation to the discussion in the previous section, theories explaining the relationship
between attitudes and receivers’ behaviors, which include the theory of Knowledge, Attitudes, and Practice (K-A-P Theory) and Theory of Reasoned Action (TRA Theory) are outlined. Moreover, the concepts of networking and participatory communication are reviewed as they both have their roles in accelerating successful health communications. This section ends with the explanation of Structural Equation Modeling technique as the basis for the development of a measurement model and structural model. This also assists in identifying extraneous variables and the latent constructs described in the quantitative part of the study. In addition, previous studies in Thailand within the Thai urban and suburban contexts are investigated to provide a benchmark for the discussion of the findings, which is in accordance with real health situations.

2.2 Concept of Health Communication

In the past “health” was defined narrowly as physical sickness, thus being sick can be explained as the invasion of germs into the body. This is in line with the Germ Theory, a medical theory, which posits that germs cause illnesses. For instance, Louis Pasteur discovered that sickness is caused from germs that destroy organs in the body. A specific germ triggers a specific illness. Therefore, the sickness is directly a result from the germ the patient is infected with. Moreover, the focus is exclusively on physical health instead of paying attention to the relevant social contexts. People greatly relied on doctors to cure their sickness. Doctors can judge whether the patient would be cured. At that point the physical treatment and the mental treatment are completely separated, thus focusing on healing infected organs to function normally (Kanjana Kaewthep, Kanittha Nilphueng, & Rattikan Jenjad, 2013, pp. 188-192; Thapin Patcharanuruk, 2005, pp. 137-138).

Compared to the previous practices, international health paradigms developed by West have been perceived to be up to date based on the advances from the biomedical and the socio-medical perspectives described by the modern health paradigm. For instance the Biomedical Paradigm such as “Disease Theory” takes scientific paradigm initiated in the 16th century in developing a mechanistic perspective. Human lives or bodies are seen as machines or clocks while sickness or
diseases are mechanical flaws. Doctors and medical professionals are concerned solely on abnormal conditions or diseases. They perform in much the same way as mechanics. This results in separated medical services with a high degree of specialization that is witnessed in modern medicine. The targets of this medication are patients. Some of the doctors may know the real causes of the illnesses while there is still speculation involved. Later in the 17th century “socio-medical paradigm” was introduced. Only in the 19th century was it accepted in many countries. The paradigm challenged that the causes of diseases and sickness do not come exclusively from germs. However, economic, social, and cultural factors also positively or negatively affect people’s health. These issues must be taken into account and reformed for good health. At present this paradigm is known as Social Determinants of Health or SHD. Nonetheless, this standpoint focuses on the patients and doctors regardless of whether they know the cause of the illness or not. Next, in the late 19th century another new health paradigm namely “Socio-Ecological Paradigm of Health” which matured from SDH was introduced. The core philosophy involves the assumption that not only illnesses are triggered by germs, social, or environmental factors. In fact good health relates to mental and physical conditions, which can be challenged by both internal and external threats. This modern standpoint is distinctive from the previous two with regard to its target group. That is to say this paradigm focuses on “healthy people” who regularly take care of themselves, while the previous two target at “sick people”. In Thai contexts, Dr. Prawet Wasi has holistically modified the Socio-Ecological Paradigm of Health and made it more understandable through “the New Theory of Health” explained later (Kanjana Kaewthep et al., 2013, pp. 188-201).

Thapin Patcharanuruk (2005, as cited in Kanjana Kaewthep et al., 2013, pp. 159-164) has classified definitions of “Modern Health” into five groups; 1) good health involves no sickness in which modern medication or alternative medicine such as herbal remedies and acupuncture to cure illnesses, 2) strength is referred to as physical strength and strength that fights against sickness, 3) capabilities to deal with one’s responsibilities are abilities to deal with assigned tasks, for example, family commitment or professional missions, which are in accordance with Functionalism, 4) balance of elements and factors required for good health deals with the four aspects proposed by the World Health Organization or WHO, which are body, mind, society,
and environment and need to be fitted to the local medical paradigm, and 5) having good social relationship means that individual actions can always positively or negatively affect the society. To support this Neuhauser and Kreps (2011, pp. 10-12); Northouse and Northouse (1992) propose that health communication is the study of communicative strategy implementation for health as well as data presentation strategies, and health knowledge publicity via media so that these can arouse perception, interest, and realization of the target groups. In this case the communication is not performed exclusively by doctors. However, it is vital that medical professionals in every department including nurses, pharmacists, therapists, or public health staff as well as the public who obtain health services are required to be involved with these communication processes to ensure their effectiveness.

Moreover, King (1981, pp. 75-79) suggested the concept of health communication as a publicity process of health information among relevant medical stakeholders such as public health staff who have close relationship and are required to interact with patients or the publics. In addition, Ratzan (1998, pp. 34-38) makes a notion that effective health communication is required to include the following elements:

1) Availability referring to abilities to approach health information of the target group who have diverse need from old media and new media
2) Accuracy of the health information
3) Reliability of health information that is adjusted to be up to date and correlate to real situation
4) Repetition of intended health information passing on to new generation
5) Ability to reach mass targets
6) Consistency of the information
7) Timeliness or potential to respond to the target people’s need at hand
8) The contents are diverse and balanced.
9) Culturally sensitivity referred to as the realization of social and cultural differences of the target groups.
10) Ability to generate mutual understanding with the target groups or understandability
11) The presentation of evidence-based information

12) The application of divergent media and the association of policies as well as related activities or multidimensionality.

At present the most legitimated health definition is the one proposed by World Health Organization (WHO). The organization defines good health as not only being safe from illnesses or disability. It also includes being physically and mentally fit in order to maintain order in society. This notion is interconnected to holistic health. Moreover, Kanjana Kaewthep et al, (2013, pp 165-166) extends the meaning of holistic health as the positive standpoint of health, centering on “continuous well-being of life”, which refers to balance, correlation, harmony, and dependence between mental and soul dimensions.

2.2.1 Development of Health Dimensions

In the past health dimensions were associated greatly with medical professions. That is to say the professionals were independent and self-regulated, while other health professions were controlled by policies. A majority of the process depends on medical professionals with no interaction between doctors and patients. The doctors regulated themselves as well as other health professionals. The medical power results from the diagnosis and treatment of illnesses by the doctors who control the body of knowledge for health management.

In England the history of the medical professions was initiated by a biomedicine association. At that time there was an attempt to standardize the issues of rights and power of other related professions. Moreover, this association also set boundaries of tasks for those professions such as dentists, public health staff, and nurses. Additionally, they obstructed other alternative medicines by accusing them of being illegal and could not be included as one of the health services in health assurance businesses. However, in spite of the immersion of alternative medicines in hospitals such as acupuncture, massage, or herb uses, they were inferior and controlled by biomedicine.

As a result of the shift in the health paradigm, the illnesses once thought to be caused by germs are now influenced by human behaviors. Medication tended to focus on healing infectious diseases that cannot effectively be dealt resulting in current
health problems. In addition, modern health definitions tend to highlight body healthiness together with the mind and society. Consequently, health issues today are far beyond the doctors’ knowledge and expertise. This modern health paradigm targets preventing illnesses and promoting good health rather than healing them. This resulted in the inclusion of more professionals where doctors would not exclusively have their roles as previously believed. Besides, individuals must be responsible for the illnesses with regard that they tend to expose their bodies to germs through a variety of means. For instance getting diarrhea from eating unhygienic food or diabetes due to consumption of too much sweet or salty foods (Thapin Phatcharanuruk, 2005, pp. 161-173).

Furthermore, the new lifestyle of people together with the persuasive food advertising high in flour and fat as main ingredients result in increased consumption, which is aggravated by ignoring of exercise. As a result people are likely to have high blood pressure, diabetes, heart disease, and many kinds of cancer. These diseases can be prevented since they are not caused by germs as being coined non-communicable disease (NCD) (Peterson & Lupton, 1996, pp. 89-145).

### 2.2.2 Alternative Medicines in Health Communication Paradigms

As a result of the limitation biomedicine can no longer deal with people’s complicated health problems. Consequently, alternative medicines, local medicine, as well as self-reliance have become new choices for people who desire to be responsible for their own good health (Kanjana Kaewthep et al., 2013, pp 200-206).

Alternative medicine is related to health communication paradigm that involves cures including health performances such as herbal remedies, equality between patient and healers, and more participation in health communication. In addition, it covers the exchange of information, experiences, and healing methods among family members, relatives, peers, and development of communities for wellness of body and mind (Sharma, 1992, pp. 18-20).

Alternative medicine includes seven subcategories as follows: 1) alternative medicine with systematic and well-organized knowledge; 2) mind medication; 3) medication centering on explanations about energy; 4) the focus on intake food; 5) motion or movement medication; 6) diagnostic medications; and 7) other alternative medicine (Germov, 2002, pp. 334-336; Sharma, 1992, pp. 16-17).
Alternative medicine does not separate the individual from society and life. Furthermore, it encourages collaboration and unity among family members and people in the community. The core concept involves the shift in standpoint regarding the relationship between illnesses and people. It can be said that illnesses are like handicaps in living because they can happen to everyone. Therefore, individuals are required to learn how to deal with, accept, as well as manage and live with the situation. As a result, patients are able to deal with their lives with the necessary encouragement. Instead of being depressed with the illness, individuals should heal their “mind” and readjust their ways of lives. For instance individuals can try to understand their lives, making merit, scarifying for self and others, consuming bio-organic food. Hence, alternative medicine is effective in healing and decreasing agony from illnesses (Germov, 2002, p. 336; Stansfield, 2000).

Previous studies in English contexts found that citizens with high income tend to choose alternative medicine such as herbal remedies, osteopathy, homeopathy, acupuncture, and spirit therapy. Besides, people are likely to apply alternative medicine to heal chronic illnesses and soothe their mind including stress from the sickness. Moreover, this medication aims to improve people’s behaviors rather than medicine or advanced medical equipment application. The realization of side effects of long-term use of medicine encouraged people to switch to alternative medicine. This is due to the belief that alternative medicine is closer to nature and herbs. In addition, alternative medicine involves holistic in healing every dimension of lives. It pays attention to the balanced relationship between good health and great life. It also provides various healing methods that suits the specific individual. This is opposite to biomedicine, which relies on knowledge, medication, and medical equipment (Thapin Patcharanuruk, 2005, pp. 169-171; Sharma, 1992, pp. 16-20)

1) Thai Traditional Medicine Era has a long history. Traditionally, health culture could be examined through communicative traditional tales via local media, there was one about a taboo. Some stories include men who have abscess or pus should avoid certain foods. Personal media included stories such as Mholum Phi Fah (a superstition health practice in the Northeastern region of Thailand) or midwife. Later, the influences of royal health practices lead to the development into more written form of knowledge. This tradition was transferred through the creation of royal medicine booklets or the inscription at Wat Poh.
2) New Medicine Era was started with the establishment of “Siriraj Hospital” which brought the influence of Western medicine. At the beginning Thai traditional medicine was taught together with western medicine. Later, in 1915 the integration seemed to cause trouble since it was confusing for the students. As a result Western medicine was exclusively taught in class. Besides, the spread of smallpox and cholera, which could not be eradicated by Thai traditional medicine, reinforced the popularity of new medicine. In 1942 the government established the Public Health Department, which facilitated the national growth of scientific medicine. This was because the ministry had numerous hospitals and health stations located in every district and province (Wichai Chokwiwat, 1994, pp. 52-92; Nidhi Eeawsriwong, 1994, pp. 18-34; Srisak Wanlipodom, 1994, pp. 43-51).

The concept of “Health Communication” in Thailand started with the application of health education curriculum and health behavioral science. In 1980 the Faculty of Communication Arts, Chulalongkorn University, established the program of Development Communication. This resulted in a body of studies regarding health communication concepts. Most of the research during this period employed the “Health Education” paradigm focusing media for birth control and nutrition. The “New Health Paradigm” started in the 1950s, as many government health organizations launched health policies, which relied on new health theories. Exercising was principal policy for promoting good health. As a result Thai people had more awareness regarding the important of self-care through aerobic exercise (Somsuk Hinviman, 2003, pp. 120-121; Kanjana Kaewthep et al, 2013, pp. 206-208).

2.2.3 Development of Health Concept in Thailand

Health concept development in Thailand has been classified into two significant eras as explained in the following section.

This is relevant to Kanjana Kaewthep (2004, pp. 72-73) who categorized Thai health systems into two aspects; 1) the mainstream medicine such as doctors, nurses, or hospitals and 2) alternative medicine such as herbs. Therefore, Thai medicine differs from that of the West with regard that it is the integration of two health paradigms. Moreover, two health communicative systems are employed simultaneously as follows: 1) Transmission Model, which focuses on the persuasive
communication and message transferring of senders; and 2) Ritualistic Model, which centers on mutual understanding of both senders and receivers. Besides, it can be categorized into 3 themes applying “theme of communication” as a baseline idea: 1) communication for informative benefits; 2) communication for aesthetic benefits; and 3) communication for public benefits. These three categories emphasizes not only on development, but also on “ways of life or culture” of people. However, the dependence on media for health in Thailand might be insufficient. Additional channels of communications should be employed especially non-traditional media including family media, local media, or cultural media.

The previous concepts are correlated to standpoints of professionals in communication arts who propose the levels of relationship between “Communication” and “Health” as follows:

1) For patients with severe illness that pose a risk to their lives: during this phase patients tend to obey the doctors or nurses’ suggestions. Therefore, not much communicative skills are required.

2) For patients with slight illness: doctors may need to employ more communicative skills for the patient to strictly obey the demand to prevent severe symptoms.

3) For healthy people: more persuasive communication is required especially when there is infectious illness in the community.

Communicating to “healthy people with no illnesses to bring information from outside to their community” requires the highest level of communications skills. It is necessary to rely on the concept of “creation before reformation” for people to strengthen their health through doing exercise, eating healthy food, and avoiding risky behaviors.

2.2.4 Health Paradigms under Health Communication Concepts

A “Paradigm” or “Worldview” is referred to as the general concepts people employ in order to understand the complicated world. A paradigm identifies what is important, correct, or logical. Consequently, when the paradigm is shifted people’s ideas, behaviors, or research methodologies are altered. This results in the discovery of new knowledge (Khun, 1970; Patton, 1990, as cited in Chai Phothisita, 2013, pp.
In this study, based on “Communication Dimension” and “Health Communication” relating to three health paradigms. Health communication is categorized into three paradigms in the West. Previous studies suggest that we are now under “health communication paradigm” in which individuals are required to be active in taking care of themselves since they are still healthy, directing their own lifestyles, and keeping fit. In contrast, the researcher believes that the modern “health communication concept” is required to rely on these three equally important paradigms, each cannot be ignored. In certain instances one paradigm has more exclusive roles than the other two. For example, when there are different health conditions in the community such as the spread of infective diseases, or severe illnesses, they should follow “health education paradigm.” Besides, based on “Health Promotion Paradigm” when there is the occurrence of new infective diseases in Thailand or in the community, health volunteer staff in the community are required to be trained by staff from central health organizations regarding the projects or new activities. As a result these staff can train the people in the community who traditionally have inadequate knowledge or support from the central organizations (Duangporn Kamnoonwatana, Niyanan Sumphao-ngern, & Sunida Siwapathomchais, 2008, pp. 20-23). The paradigms are outlined in the following section.

2.2.4.1 Health Education refers to the situation in which senders are health education staff, who believe that people in a community have insufficient health information and knowledge with no power to make decision. This corresponds to the Germ Theory. This paradigm appears to focus on the physical health persuading people by personal media such as health education staff or central mass media such as through television or campaigns with no attention on social environment. Besides, people depend on health education professionals such as doctors, nurses, or public health staff. One-way communication from the staff to the public is usually performed. Public health scholars have the notion that “effective communication results in good public health.” As a result there are numerous campaigns or informative communication promoting knowledge and correct health information to change their attitudes and behaviors that corresponds to the K-A-P Theory. The target group of this paradigm posits that sick people and doctors might or might not know the causes of the illnesses.
2.2.4.2 Health Promotion Paradigm is defined as the expansion of health informants into public health volunteers and community leaders who are required to be trained from the public health staff from central health organizations. It aims to prevent rather than heal illnesses, for instance, vaccination. In addition, community media is employed with regard that its health content corresponds to the community culture. Persuasive one-way communication and participatory communication are integrated with the target group. The assumption is healthy people prefer to protect themselves by boosting their immunity through vaccination or early diagnosis.

2.2.4.3 Health Communication Paradigm posits that individuals are required to be responsible for their own health. Having good health results from exercising or consuming healthy food. The roles of participatory and two-ways communication are currently shifting. During the communication processes public health staff, public health volunteers, and people in the community as the receivers are involved. The new definition of “having good health” involves the balance of body, mind, social environment, and soul. Attention is focused on “promotion” of good health instead of “healing” illnesses. Moreover, health boundary has been expanded from hospitals, health stations, or communities to workplaces, temples, and schools. In addition, varieties of health media are “integrated” including mass media, local media, activities media and specialized media as well as new media. This involves websites, e-mail, search engines such as google.com or yahoo.com, and application such as LINE, Facebook, or You Tube, etc. (Somsuk Hinviman, 2003, pp. 118-121; Kanjana Kaewthep et al., 2013, pp. 225-242; Manyozo, 2012, pp. 233-248).

Furthermore, principles of health communication have been categorized into 4 groups as follows:

1) Curative strategies: targeting or searching for new effective treatment for people who are already ill
2) Preventive strategies: focusing on promoting immunity for healthy people through vaccination or early diagnosis
3) Rehabilitative strategies: reviving and rehabilitating after recovery from sickness for good health and strong mind
4) Promotional strategies: being promoted recently in health system and targeting at healthy people for them to promote and maintain their good
health with lifestyle that facilitate people to have good health (Kanjana Kaewthep et al., 2013, pp. 186-187).

2.2.5 Status and Methods of Community Health Communication in Thailand

According to literature review, from 1981-2002 there were 178 theses conducted under the supervision of Faculty of Communication Arts, Chulalongkorn University that were relevant to health paradigms. Most of the research centered on the investigation of receivers’ active health behaviors and health participatory communication. The target group in the health sector has expanded from the individual level to communities, families, groups of people, and associations. The setting of the studies also broadened from big cities to the areas in the countryside. Moreover, communities could produce, utilize, and control non-traditional media such as personal media, community media, special media, and local media by employing and adapting the concepts about social groups, communities, and civil society. The public had more opportunities to participate in procedures of health communication to “promote and maintain good health.” The major mission is not only “solving health problems”. It also empowers and increases the connections by learning together to rely on themselves within the associated groups. Besides, communities worked together to strengthen their communication power, negotiation, and request for assistance from organizations, government or private organizations, as well as relevant people outside their immediate society. Therefore, factors that influenced civil society’s health communication include: 1) abilities to communicate of community members; 2) elements of communication procedures that are relevant to the social environment, culture, and lifestyle of people in the civil society; 3) opportunities for communities to participate in the communication procedures; and 4) relationship among people in the community, connection with government organizations, private sectors, or any civil societies outside the community.

In the meantime, most societies employed a variety of media that should be accepted and trusted by people in the community to promote good health. Those media included 1) personal media in the community who were not granted officially by the government organizations such as Buddhist monks, local philosophers, and
local healers; 2) local media, which are culturally unique in each community; and 3) activity media that facilitate two-ways communication such as small group discussion, conversation, meeting to boost relationships. These media were integrated to change attitudes and promote further health behaviors (Rangsima Nilobol, 2004, pp. 228-230).

At present new media includes tools such as e-mails, websites, search engine such as google.com, and applications such as LINE, Facebook, or You Tube are applied in community health communication. These new media have significant roles in successful community heath communication for self-care and channels to provide real-time answers for health questions. In addition, these media encourage two-ways communications, health commitment, and participation. The media are employed promptly as cooperative channels for illness solutions or health threats eradication between public health staff and other stakeholders. This would include the staff and local administrators, leader networks or public sectors and those two parties mention earlier, and between public leaders and people in the community. Moreover, new media also plays a key role for network creation and participation in health communication in every level in communities. Furthermore, “media integration” is also performed in health communication. This includes the employment of new media with personal media, community media, and mass media to communicate to the public. This results in community engagement in which people have conversation about good health promotion that eventually leads to participatory communication among every sector (Heldman, Schindelar, & Weaver, 2013, pp. 2-8; Manyozo, 2012, pp. 233-248).

Kanjana Kaewthep (2004, pp. 5-21) has summarized concepts about “Health Communication,” into four areas as follows:

1) Integration between health concepts and communication models
2) Resulting in individual, family, community, and society changes
3) Senders and receivers reveres their roles
4) All factors mention above result in the participation in sustainable health communication in Thai contexts

The performances of community health communication require active participation of people in the community. In addition, they are required to be directed
and empowered through communication activities in their community by their leaders, public health volunteers, and leaders of health clubs. In other words, it means that they need to rely on resources in their community and employ the media that meet the audiences’ requirement. The performances of community health communication need to have these characteristics as follows:

1) Having an active leading team in which people from many sectors work together on health communication

2) Expansion of network to groups of people or clubs in the community that facilitate the extension of health communication to cover wider areas

3) Conforming to community health communication concepts as follows: 1) paying attention on health communication elements which are individuals as the data sources who play key roles in health communication, places that facilitate the communication, community media, and related people in every sector; and 2) following health communication procedures from knowing the community, planning, preparing, acting, and evaluating (Department of Health Service Support, Health Education Division, as cited in Duangporn Kamnoonwatana et al. (2008, p. 23).

2.2.6 New Health Theories in Thailand

While the Germ Theory proposed that “good health” refers to “having no physical illnesses”. The new health theories have modified the definition that it should be the balance among four health dimensions, which are body, mind, society, and environment. After that integrated them as a “Health Pagoda” illustrated in Figure 2.1 below.
According to the health pagoda diagram there are two thought-provoking aspects. First, each issue must be balanced. If one of them is damaged, the whole pagoda collapses starting from the environment base, the society, the body, to the mind. The effects of the incidence occur in both bottom-up and top-down directions. Second, Dr. Wasi placed “Mind” at the top of the pagoda since it is the most significant. This corresponds to the Buddhist saying that “Mind is the master and body is the servant.” That is to say when we are stressful, our body will be weakened. Illnesses such as heart disease, headache, high blood pressure, or cancer, could attack the body.

Body treatment is the major focus of Germ Theory. The service providers are limited to small groups of medical and public health professionals. Whereas new health theories are open to everyone, every group of people, or organization to participate in health promotion. The areas of health promotion are ubiquitous and unlimited. People can do it at home, schools, temples, or at work. Moreover, good health must be responsible by oneself and the focus is on self-reliance (Wasi, 2003, as cited in Kanjana Kaewthep et al., 2013, pp. 206-207).

It is obvious that “Health Communication Paradigm” focuses on the act of health promotion by local people in the community. It concentrates on the participation of those people as senders and receivers, and serving their needs. Furthermore, communication areas have been expanded from hospitals or health
stations to workplaces, temples, and schools. Moreover, personal media such as public health volunteers or community leaders play key roles in transferring health messages to the target group through two-way communications in order to share mutual understanding and experiences. However, health communication can be successful and sustainable provided that people in the community are aware that health is their responsibility and are willing to have good health staying away from illness. Besides, they must realize that they can direct their own lifestyle. For instance individuals are required to exercise, eat healthy food, or consume supplement or vitamins to have good health.

In conclusion successful health communication depends on many factors. First, the concept about life must be changed. People need to live closer to nature and have strong faith that they can direct their own lives. They need to be active in taking care of their health. They must behave properly for instance readjust their eating habits, stop smoking or drinking, start doing exercise. Besides, doctors and patients need to be equal and able to exchange their ideas (Thapin Patcharanuruk, 2005, pp. 170-173).

2.2.7 Dilemmas of Health Communication

Even though modern health scholars believe that “communication” and “health” tend to be more connected. Today there are some dilemmas in connecting these two aspects together as follows:

2.2.7.1 Sender and Receiver Dilemmas

1) Receivers depend their health on others vs. the one depending their health on their own. For instance the 30 baht for all diseases project reflects the reliance on doctors’ skills requiring a certain amount of money for the treatment.

2) Vertical Communication vs. horizontal communication or the conflict between senders and receivers -This includes the communication between doctors and patients should be vertical or horizontal. In vertical communication doctors can expect patients to follow their suggestion, whereas in horizontal communication patients can also inquire about their health.
2.2.7.2 Message Dilemmas

1) Health messages defined by others vs. the messages defined by oneself such as “obesity” - From the standpoint of doctors or diet centers, obesity is one of the health problems that may lead to other diseases. However, people with obesity would perceive positively or see it as a means to show for a successful life.

2) Separated health messages vs. integrated health massages - For instance, communication between doctors and patients is likely to be separated such as patients with eye pain would be recommended to see an ophthalmologist while those with toothache are told to go to the dentist. Whereas integrated health messages holistically present varieties of health messages such as alternative health magazines which feature messages that holistically encompass the mind, society, emotion, environment, and soul.

2.2.7.3 Media and Message Dilemmas

Media with external massages vs. media with our own messages - Mass media such as televisions or personal media with health expertise usually convey messages from other people. Activity media through aerobics or local media such as Nohra (traditional southern performances), Fon Jerng (traditional northern performances) with sword are examples of media in which people can include their own messages.

However, it is necessary for health communication to deal with these dilemmas. For instance, the communication between nurses and patients should be horizontal to transfer empathy, and understanding. Vertical communication should be employed when patients get serious illnesses and do not follow instructions. This includes demanding patients to take medicines (Somsuk Hin viman, 2003, pp. 118-121).

In conclusion from the theories and concepts presented above the researcher is keen to know whether community health behaviors could become an output variable employed in designing a structural equation model of communication factors for health communication of community.
2.3 Concepts of Senders’ Communicative Factors

Models of senders’ communication factors comprise of three subcategories as follows: 1) components of communication; 2) Roles and Responsibilities of Personal Media; and 3) Media in Community. They are discussed in detail in the following section.

2.3.1 Components of Communication

Successful communication requires four components; 1) senders, 2) message, 3) channel, and 4) receiver, which are called “S-M-C-R” in Communication Arts.

1) Senders are the source of the message that translate, reorganize, and encode data from the sources in order to transfer their objectives.

2) Messages refer to texts or signs both verbal and nonverbal in which senders encode their intention and convey to receivers.

3) Channels are defined as content or message containers. The channels are not limited to “media” such as mass media, special media, personal media, activities media, or new media. “Space and time” are also included as channel.

4) Receivers and effects are referred to as skillful people in encoding messages. They are required to share the same or similar attitudes, knowledge, and social and cultural backgrounds to senders to achieve successful communication. Regarding effects we can categorize communication into two types. First is one-way provided where there are no effects from the communication. Second is the two-way communication that occurs when receivers give feedback to senders.

The following are the factors related to senders in successful communication.

1) Communication Skills are abilities to encode messages ranging from listening, speaking, reading, and writing skills that cover accurate use of language that facilitates understanding of receivers along with facial expressions and melodic speaking style. It also includes writing skills or the use of correct, beautiful, and readable expressions.

2) Knowledge refers to the understanding of the intended topic and its content. If senders have good knowledge of the topics, communication tends to be more successful.
3) Attitudes involve senders’ attitudes toward receivers and the topic of communication. Therefore, senders are willing to communicate to receivers with whom they have positive attitudes. Similarly, provided that senders are satisfied with or trusted in the message, they will be confident in communicating and the communication will be fruitful.

4) Social System & Culture are referred to as the attention on values, belief, religion, and culture in terms of the social contexts in which the communication occurs.

With regard to communication that aims to change receivers’ knowledge, attitudes, or behaviors, success is determined from the resulting change in the receiver. This achievement depends on many factors derived from brainstorming, encoding the ideas into messages, abilities to convey them, receivers’ competency to encode the messages, receivers’ conditions and regulations to select messages, message selection from the data sources, as well as media efficiency, and channels (Berlo, 1960, pp. 41-54).

Schramm (1973) has proposed 2 factors that influence successful communication. The first is the frame of reference such as value, beliefs, social and cultural contexts of both senders and receivers. The second is the field of experience of both senders and receivers. These features facilitate mutual understanding and successful communication provided that both parties share similar frame of reference or field of experience.

In conclusion, components of communication have been employed as a baseline concept to investigate the extent to which these components influence success of community health communication. It assesses the importance of senders in directly or indirectly influencing people’ health behaviors and the extent of its role.

2.3.2 Roles of Personal Media

The study of communication roles is an underlying concept of the Functionalism perspective. The theory proposes that small organizations can exist provided that they are required to complete a certain assigned task, including “personal media” (Kanjana Kaewthep, 2004, pp. 88-89). Roles of personal media in communication for development or communication for community are defined as follows:
1) Expressive Function refers to the abilities of an individual or groups can express themselves to convey their self or group identities.

2) Social Function is the involvement in communication that encourages unity in a community.

3) Information Function involves the opportunities for people to exchange information and knowledge that facilitate understanding, communication knowledge, and transferring skills to relevant people in community developing activities.

4) Control Activation Function relates to the methods that lead to revision or solution to problems of individuals or the community. This includes the promotion of feedback from every organization in the community (Windahl, Signitzer, & Oilson, 1992, pp. 155-166).

Moreover, Kanjana Kaewthep (2009b, pp. 242-243) has identified the characteristics of personal media. The strength of “personal media” lies in networking and all kinds of development tasks. They can perform as much as radio, television, telephone, and computers (almost every task) while capable to accommodating other functions. This results from the fact that they are “human-being” who are flexible and can easily modify information from the source to suit the context. However, personal media requires the support from families, relatives, and acquaintances.

The assessment of personal media communication abilities are based on the following three aspects:

First knowledge regarding the topic
Second skills in transferring knowledge into practice
Third ability to analyze and choose the appropriate tactics to communicate to the right person at the right time and space known as “communicative strategies.”

In other fields of study personal media are likely to be made by “community leaders” or “community heads”. However, in the “communication point of view” personal media is not limited only to individuals but may also include the real “media.” Regarding this Amornrat Tiplert, Weerawat Amphansuk, Prapassorn Rattanapasura, Jaros Siripanich, and Rattana Rattanasupara (2006, pp. 135-150) proposed the notion that there are a number of studies on personal media about their “political roles” such as a community development planner as a party election
campaigner. In terms of “social roles,” personal media perform as experts or a role model. However, the studies on “communication roles” of personal media are scarce. Therefore, further effort should be put on studying the roles personal media. The research team found 5 integral features as follows:

1) As a coordinator between the community and the municipality
2) As a negotiator
3) As a teacher or instructor
4) As a consultant
5) As a representative of the community who contact with the outsiders

These roles can imply the potential of personal media. Individuals who take many roles are competent or have more communication capacity. The study of communication roles of personal media could reveal characteristics, communication methods employed, their receptive communication skills encompassing listening and speaking abilities, as well as their expressive communication skills, which are speaking and writing competence.

In the meantime, Manyozo (2012, pp. 241-248); Uthaiwan Sukimanil (2005) have summarized the communication roles of mass media as follows:

1) Roles in teaching, suggesting, consulting about self-care and people under their care about how to keep healthy, avoiding disease infected areas, environment management, drug avoidance, food and water selection, exercising, resting, getting fresh air, having safe sex, having age-appropriate growth, dealing with stress, mental health care, family planning, and birth control for married couples
2) Roles in supporting and campaigning against health problems such as protection from drugs, helmet wearing, safety belt fastening, prevention of drunk driving, promoting condom use, and warning against smoking
3) Roles in coordinating with local administration organizations as well as relevant institutes to create good relationship with the community and promote teamwork
4) Roles as leaders in health behavior change, and promotion of good health for people in the community
5) Roles as a model for good health
Burgoon (1974, pp. 36-43) and Kanjana Keawthep (2009b, pp. 84-85) proposed a notion based on “Homophily” that when “personal media” as senders and the receivers share something in common, they are united, and connected to people in the community. Thus, participatory communication among those people will be empowered. For example, in case that the aerobic dance teacher is of the same age as the people attending the session, these people will have the encouragement to do the same thing. This is different from “Heterophily” in which “personal media” as the senders and the receivers share different common ground and are separated or distant. These concepts correspond to the models of the Two-Step Flow of Information and Opinion Leader. For instance the team in a project such as “Sue Peunbaan Sue San Suk Project” are the S1 responsible for conveying information to teenagers who are keen to learn about the local media. These teenagers can transfer themselves into personal media or senders or opinion leaders who communicate with other teenagers who are not keen about this kind of media (R2) in order to get them to become interested in the media as shown in Figure 2.2 below.

![Figure 2.2 Two-Step Flow of Information](image)

**Source:** Adapted from Kanjana Kaewthep, 2009b, p. 84.

From the literature review above, the researcher has reviewed models of personal media roles. As a result the researcher is keen to know whether personal media has direct or indirect effects on community health communication behaviors.
2.3.3 Media in Community

Media employed in community communication should have “diversity” in types and channels as presented in Figure 2.3 below.

According to the diagram, “media in community”, in a broad sense, “community communication” includes community media, local media, object media, place media, specific media, and activity media. Each medium can be defined as follows:

Figure 2.3 Diversity of Media Types in Community

Sources: Adapted from Kaewthep, 2009b, p. 45.
2.3.3.1 Community Media include any kind of media in a community that are connected to it conveniently. This includes community radios, transmission towers, community meetings, and notices. Jankowski (2002, as cited in Kanjana Kaewthep, 2009b, p. 53) and Mowlana (2001, as cited in Kanjana Kaewthep, 2009b, p. 53-55, pp. 422) have pointed out that, “Despite the intelligibility about what media really are or having limited understandings that mass media are the exclusive ones, the opportunities of employing varieties of media in development will be lessened.”

1) Factors Constituting “Community Media” are their objectives, ownership and control, contents, production processes, distribution, receivers, budgeting and funding. The details are provided as follows:

(1) Objectives of Community Media: To provide information, knowledge for the community, as well as to offer opportunities for people in the community to participate in community health communication, including the empowerment of the community,

(2) Ownership and control: The ownership results are related to control of the media. Therefore, community people have more ownership over their media such as local media and traditional media. The control in the media is increased except in the case of local TV or radio, which is supervised by the government. As a result, controlling power and utilization of the people in the community are decreased.

(3) Content of Community Media: Related to the community and produced by the community such as the local people. An example is the agriculture technology transfer and service center can become a medium in providing knowledge on crops planting in the community.

(4) The Processes of Community Media Production: This could be processed by unskilled or unprofessional individuals. For example, kids and teenagers as well as local people seem very active in producing media that serves the community needs such as the AIDS Campaign Media Production in Chiang Rai. These media include the use of flip charts with a narrator to facilitate learning in less educated people.

(5) Distribution of Community Media: The core philosophy is encouragement of the public media access. The public’s role is no
longer limited to receivers, but may have various roles such as the producers, policymakers, or planners.

(6) Receivers: The target of community media is usually a limited group of the community people. The sender can even identify each individual receiver. This is opposite to mass media where the audience is a “mass” scattered and not identified.

(7) Budgeting and Funding: Community media “must not be commercial,” even though there would be some income from advertising, sponsors or the government. The income must be for administering and development of the media. The objective must not be for profit purposes.

2.3.3.2 Personal Media: These media are the most beneficial in networking and all kinds of development tasks. They can perform as well as the radio, television, telephone, and computers. They can also perform more varied functions from other media. This results from the fact that these media have “human” characteristics such as abilities to soothe others, expressing standpoints, and the ability to reorganize information from its sources. This corresponds to Arroyave (2012, pp. 195-196) and Kanjana Kaewthep (2009b, pp. 422-423) who support that “personal media” are the most powerful media for networking and development (as mentioned in roles and responsibilities of personal media in the previous section).

2.3.3.3 Local Media: These include media in a certain community, which have been launched for a long time that people are familiar with. In effect it has become a part of their life style, culture, or traditions such as Khaw Saw (a Northern traditional performance), Noh Rah (a Southern traditional performance), Mor Lam (a Northeastern traditional performance), Likeh (Thai traditiional musical folk drama), and Lamtud (Thai traditional performance in which two groups take turns to debate and sing).

2.3.3.4 Object and Place Media: These media refer to objects in which some content is featured or perform as tools that unite people together such as Hing Phee (a shelf in which ghosts are invited to stay, shrines of the ancestor, Buddha statues, and magical logs in the community). This includes places in the community, which are employed as “media” such as temples, community fields, and monuments.
2.3.3.5 Specific Media: These are media for special events such as T-shirts for banning alcohol consumption projects or media for specific groups of people such as the Internet, which is for teenagers or office people. These include “specialized media” such as media for alcohol drinking ban on the Buddhist Lent Day. When talking about specific media people usually think of modern specific media such as leaflets, posters, or notices. These types of media have been developed long ago. In the past they were called, “traditional media”. These include festivals or special media in a certain period such as a flag parade in Songkran festival or the change of clothes that adorn the Buddha's relics.

2.3.3.6 Activity Media: These media are employed mostly in health communication and development due to its participation opportunities for receivers. They include exhibition camps, reforestation, and health market fair.

2.3.3.7 New Media: Apart from the traditional media, new media such as e-mail, websites, search engines; google.com/ yahoo.com, or applications including Line, Facebook and You Tube are also employed in community health communication. These media are popular in health communication because they are effective in promoting self-care. In addition, they have real-time responses and involve two-way communications. Moreover, new media encourage commitment to promote health. They provide cooperative channels for illness eradication and health risks protection among public health staff or between those people and local administrative officers, including communication between public network leaders and the two groups mentioned earlier. Finally, the network leaders and the public are able to communicate without delay. Therefore, new media play a key role in networking and encouraging communicative health participation for every sector in the community.

Furthermore, “media integration” strategy should be adopted in community health communication. For example, the integration between new media and personal media, local media, or mass media for health communication can satisfy community people, and increase community engagement that results in health promotion conversation. This could eventually facilitate participation from every community sector (Heldman, Schindelar, & Weaver, 2013, pp. 2-8; Manyozo, 2012, pp. 233-248; Suggs & Ratzan, 2012, pp. 250-260).
In addition, Berrigan (1979, pp. 10-13) has added more characteristics of media in the community as follows:

1) Media in Community must be modified to serve the community’s needs.

2) Media in community must be ubiquitous in providing information, knowledge, and entertainment.

3) Community people must play various roles in community media production such as a planner, a producer, or a mentor.

4) Media in community are not only tools for information transfer, but also channels for information sharing.

5) Community people can control the content featured through community media.

In summary, the previous concepts about media in community are employed as baseline data to provide answers about how often and how people who get involved with health communication. It includes the access to health information from community media such as personal media, community media, specific media, activity media, and new media, which feature health content. According to previous literature about senders’ communication factors, there are another four subcategories namely: 1) community leaders; 2) senders’ characteristics; 3) roles of personal media; and 4) media in community. As a result the researcher is keen to investigate whether and how community leaders ’communicative factors could become a cause variable, which may directly and indirectly influence independent variables in a structural equation model of communication factors for health communication of community.

2.4 Concepts and Theories of Receivers

The concepts and theories of receivers comprise of other two minor concepts and theories. Of interest in this study are the Uses and Gratifications Theory and 2) Media Exposure, which are discussed in the following section.
2.4.1 Uses and Gratifications Theory

Uses and Gratifications Theory has shifted from the stance of passive audience to active audience who have clear objective from media exposure. The theory fails to take into account social needs by questioning the receivers about why they choose a specific program, what they need, and if their needs are satisfied or not after watching the program (Katz, Blumler, & Gurevitch, 1974, pp. 509-510).

In terms of the communication processes, each communication starts with need. Later, that need will become motivation, which forces receivers to expose themselves to a certain medium to serve their expectations and satisfy themselves. In addition, media exposure could lead to expected consequences such as preferable information or unexpected consequences like having knowledgeable image and being modern as shown in figure 2.4 below (McQuail, Blumler, & Brown, 1972, as cited in Katz, Blumler, & Gurevitch, 1974, pp. 510-511).
Figure 2.4 Objectives of Uses and Gratifications Theory

Source: Adapted from Katz, Blumler, and Gurevitch, 1974, pp. 509-523.

Katz, Gurvitch, and Hass (1973, pp. 166-167) have proposed a scale to measure social and psychological need of individuals who expose themselves to each medium as follows:
1) Mode: Types of Needs
   (1) To strengthen what is already possessed
   (2) To weaken what is already possessed
   (3) To acquire things that are not available
2) Connection with Outsiders
   (1) To obtain information, knowledge, and understanding
   (2) To acquire gratification and emotional experiences
   (3) To strengthen credibility, confidence, stability, and status
   (4) To keep contact with others
3) Referent: Target People
   (1) Self
   (2) Families
   (3) Friends
   (4) State and society
   (5) Tradition and culture
   (6) The world
   (7) Others including negative referent groups beyond physical perceptions.

2.4.1.1 Media Uses of Receivers

Media uses of receivers depend on the eight factors proposed by McCroskey (1997, pp. 155-157) and McQuail (1997, pp. 318-324, 2005, pp. 423-431) as follows:

1) Social Background and Milieu
   These factors include social status, education, religion, culture, politics, and family environment. That is to say that receivers with different social backgrounds and status are likely to expose themselves to diverse media or various information. Besides, cultural capital such as skills, or taste can be inherited from generation to generation through family, education, or social cast.

2) Personal Attributes
   This feature includes all aspects constituting individuals’ characteristics, for instance, age, gender, job position, education, income, or lifestyle.
3) Media-related Needs
These needs depend on expected benefits of people from media exposure.

4) Personal Tastes and Preferences
The factors rely greatly upon types of media receivers prefer.

5) General Habits of Leisure Time and Media Use
As a matter of fact people can expose themselves to media ubiquitously. They can do it anywhere including at home, on the bus, or while driving. It depends primarily on their habit.

6) Awareness
At present a large number of data sources are available including variety of media that present such information. Receivers become active audience and have a certain expectation during exposure to each medium.

7) Specific Context of Use
This relies upon social environment and places. It includes being with friends, family, or other places such as at home, at work, while travelling, or in a cinema.

8) Chances
These relate to opportunities for media exposure.

2.4.1.2 Factors Influencing Media Selection to Satisfy Receivers
Blumler and Katz (1974, as cited in Kanjana Kaewthep, 2014, pp. 139-141) have stated that media exposure tend to be active with clear aims. In other words, receivers usually expect that a certain medium could serve their needs, which mentally and socially satisfies them more than other media. It can be illustrated in the following instances:

1) Employing media as a topic to interact with others
2) Employing media for security & reassure
3) Employing media to seek for meaning and understand something
4) Employing media to improve self or organizational image
5) Employing media to improve taste or characteristics
In addition, Kanjana Kaewthep (2009b, p. 289) has outlined the types of motivation and satisfactory from media exposure as follows:

1) Obtaining information or suggestion
2) Developing self-confidence
3) Getting more information to strengthen their values
4) Learning of different societies and the whole world
5) Gaining background information to talk to others
6) Evading from problems and worries
7) Empowering attitudes and values
8) Gaining knowledge to talk to others

2.4.2 Concept of Media Exposure

McQuail (2005, pp. 425-429) has investigated receivers’ media exposure behaviors and found that receivers could be satisfied provided that the following five needs are served:

1) Receivers often use the available media, which is convenient and accessible. They will choose the nearest media rather than others that need to be sought after.

2) Receivers often select the distinguished media, which attract their attention.

3) Receivers often select the media, which matches their attitudes, values and experiences.

4) Receivers may find the specific information. They have clear objectives in finding information such as students who spent long hours in the classroom realize that they need to pay attention on particular subjects.

2.4.2.1 Step of Media Exposure

Burgoon (1974, pp. 152-154) and Klapper (1960, pp. 298-299) divided the processes of media exposure into four steps (Figure 2.5 on p. 55) as follows:

1) Selective exposure means the receivers will choose to expose to interesting media to suit their needs. This is the first step in the selective media exposure according to their interests. This is because people always finding supporting information, which is consistent with their own ideas (Self-concept).
Therefore, people are able to select media exposure or use channels for receiving news on their demand, such as choosing TV channels, radio stations, and newspapers for reading. This is accordance with the concept proposed by Parama Satavedin (1998, pp. 115-122). The author mentioned that people may have opportunities to select media exposure, but they also have limited time for all sources. Thus, these effects include media satisfaction and dissatisfaction that may affect senders personally. So the receivers usually select media that would be satisfactory to them.

2) Selective attention means the receivers try to avoid getting conflict or contrary information which are against their knowledge, attitudes, beliefs, values and experiences,

3) Selective perception and interpretation means the receivers try to distort the information by interpreting it in accordance to their knowledge, attitudes, beliefs, values and experiences.

4) Selective retention means the receivers recognize the information that is of interest in supporting their attitudes, beliefs, values, and experiences and avoid the ones, which are against their knowledge, attitudes, beliefs, values and experiences.

This theory also matches the findings of Thanawadee Boonlue, Jaranai Kaewkosol, Rungnapar Pitpreecha, Peera Jirasophon, and Parama Satavedin (2003, pp. 637-638), which mentioned that we are able to remember information that is consistent with our thoughts, beliefs and attitudes rather than contrary information, which are against the thoughts, beliefs and attitudes. Therefore, by remembering the content of the consistent message makes our thoughts, beliefs and attitudes stronger.
2.4.2.2 Media Exposure Factors

1) Needs is a physical and mental state determined by individuals.

2) Attitudes and values are important factors in the media selection and media exposure.

3) Goals are the indicators used for media selection and media exposure.

4) Capability is influential for media selection and also media exposure because the receivers will select media exposure according to their potential.

5) Utility is the intended application of media use in various fields determined by the receivers.

6) Communication style defines the styles of media exposure. This includes preferences for media such as newspaper or television.

7) Context defines the environmental factors, which directly influence media selection in various situations.

The literature review above discussed studies about media exposure of those in the three communities being studied, who are involved in health communication operations. It is the aim of this study to examine whether they satisfy internal and external viewpoints of health communication operations in communities and if so how it is done.

### 2.5 Theories of Relationship between Attitudes and Receivers’ Behavior

Knowledge, Attitudes, and Practice Theory (K-A-P Theory) posits that attitude is the link between knowledge and behavior. Therefore, the specific knowledge is connected with attitude thus affecting behavior. Important factors in communication include individual knowledge, positive attitude to stimulation. This leads to the senders’ behavioral expectation (Schwartz, 1975, pp. 28-31). The details of each variable are explained in the following section.

#### 2.5.1 Knowledge, Attitudes, and Practice Theory (K-A-P Theory)

**2.5.1.1 Knowledge Theory**

Knowledge is fundamental to perception. Most people get through experiences by learning from the reaction to stimulation (S-R) and managing the knowledge system, which includes psychological data. From this assumption, knowledge is classified as the internal process, which determines selective memory. The definition of knowledge is the acquiring of facts, means, rules, practices, things, events, or people by observation and through the media.

**2.5.1.2 Attitudes Theory**

Attitude is closely related with belief. It is the worldview that is cultivated previously over time (Predispositions). The difference between the terms can be summarized briefly. Attitude is the evaluated beliefs for instance liking, disliking, agreeing, or disagreeing with a predisposed worldview.

These thoughts affect attitude changing in at least two ways. First communication components such as senders’ message, channel, and receivers’ thought on those components. Second change occurs when people receive news from personal media, mass media, or new media that could change individual’s attitude and
lead to positive attitude toward performing a given task. This would be facilitated if the “channel” and “message” are congruent to the individual’s previous knowledge and attitude. If there is more consistency, it leads to performance of expected practices (Orawan Pilanthaowat, 2011, pp. 35-40; Surapong Sothanasatien, 1990, pp. 118-123).

2.5.1.3 Receivers’ Behavior Theory

Behavior is the action based on attitude and individual’s knowledge. People behave differently because of their different knowledge and attitude. Moreover, different behaviors are from different media exposure and message interpretation. Schwartz (1975, pp. 28-31) explained the relationship between knowledge, attitude, and agreement in performing that attitude is the center for knowledge and performing. Furthermore, knowledge is related with positive attitude that leads to performance.

Nevertheless, positive attitude may not always lead to performances because there are some factors that may interfere with the process. For instance individuals have many different beliefs. They will perform according to their most positive attitude. The gap between knowledge, attitude, and performing (KAP-GAP) can be solved into four ways as follows:

1) Inform target groups more about methods and practices
2) Give advice to practices, which can be followed by leaders who demonstrate them directly to the target group and instruct them closely
3) Reward those with desirable behavior in order to motivate other members to follow
4) Use persuasive strategies through personal media who are thought leaders to contact members directly. Members’ friends help to persuade members who refused to comply with required behaviors (Orawan Pilanthaowat, 2011, pp. 44-45; Rogers, 2003, pp. 464-467).

2.5.2 Theory of Reasoned Action (TRA Theory)

Theory of Reasoned Action: TRA Theory explains individual behavior expression, which results from intention. People tend to weigh the disadvantages and advantages before taking action. The intention in behavior expression is caused by
two factors. First is the attitude toward behavior expression, which is based on behavioral belief and the result of behavior whether it is positive or not. Second is the belief that other people who are influential to the individual will agree with the behavior or not (Subjective norms). However, attitude may not lead to behavior in some situations. It depends on the opinion of the influencers (as shown in the Figure 2.6). For instance, if the oldest child in the family is in second year university and the family runs into a financial crisis. The decision to continue or quit the studies would depend on the attitude toward education including other people’s expectation and its importance. If the attitude towards study is negative and the influencers such as relatives support the decision to quit, the individual is likely to leave school. However, in the case the individual has a negative attitude towards study but the relatives are positive about education, it is likely that the individual would continue to study (Ajzen & Fishbein, 1980, pp.5-10; Orawan Pilanthaowat, 2011, pp. 49-50).

![The Theory of Reasoned Action Model](source)

**Figure 2.6** The Theory of Reasoned Action Model

**Source:** Orawan Pilanthaowat, 2011, p. 50.
From the literature review above, the researcher is interested in studying the communication factors including frequency of media exposure. In addition, opinion of those who are involved in the community health communication toward providing health information of media in community should have an indirect effect through attitude (Community satisfaction in acquiring health communication information). This could affect behavior (Role of personal media in order to be health communication leader in community, participatory communication in community health communication and health behavior of community). It is the aim of the research to examine the extent and process of this effect.

2.6 Concept of Networking

Network means the net of relation/gathering patterns including the coordination that is required for action to be taken (Kanjana Kaewtheep, 2009a, pp. 400-404).

The network includes gathering patterns, individual coordination, organization group, community, and country. Each individual has their own resources, goals, working methods, and target groups. However, when they have some missions together, they will gather to achieve network goals based on their relations. Moreover, when someone needs help or cooperation, they can ask for help from other members.

2.6.1 The Difference between Group/Organization and Network

If we compare the patterns of group/organization and network gathering (as shown in Figure 2.7 and 2.8), it is shown that the familiar patterns of group/organization in the vertical relationship such as the chairman at the top position, the other committees in the lower level while other members are at the bottom. This is different from the network pattern that is organized in a horizontal relationship. In addition, if the details of “relation web/communication web” are considered, it can be seen that the amount of relation web/relation web of group/organization is much less than the network.
The nature of network NW
Simply occurred, quickly disappeared

Figure 2.7 The Definition of “Group/Organization”
Source: Adapted from Kanjana Kaewthep, 2009, p. 402.

Figure 2.8 The Meaning of “Network”
Source: Adapted from Kanjana Kaewthep, 2009a, p. 402.
Table 2.1 The Different Comparison between Group, Organization and Network

<table>
<thead>
<tr>
<th>Topic</th>
<th>Group/ organization</th>
<th>Network</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Idea/Belief</td>
<td>similar</td>
<td>similar/ different</td>
</tr>
<tr>
<td>2. Experience</td>
<td>similar</td>
<td>similar/ different</td>
</tr>
<tr>
<td>3. Practice</td>
<td>similar</td>
<td>similar/ different</td>
</tr>
<tr>
<td>4. Mission</td>
<td>similar</td>
<td>similar/ different</td>
</tr>
<tr>
<td>5. Goal</td>
<td>similar</td>
<td>similar “big goals” on the specific missions</td>
</tr>
<tr>
<td>6. Time</td>
<td>similar</td>
<td>meet on duty</td>
</tr>
</tbody>
</table>

**Source:** Adapted from Kanjana Kaewthep, 2009a, p. 403.

Table 2.1 shows that “group/organization” has more strict characteristics and requests from members. However, “network” is more flexible. For instance members in the network may have similar or differing ideas in some points. The time spent in the meeting is considered part of the performance of duty. In the meantime, members of network will do their work keeping their freedom and being themselves. To build the network, members may be from the sub-organizations described as follows (as shown in Figure 2.7):

1) Gather individuals as the network such as local wisdom elite network and herbal folk medicine healer network, etc.,

2) Gather groups as the network such as AIDS patients network in each province to be the region level, etc.,

3) Gather communities as the network such as slum communities in Bangkok, etc.,

4) Gather organizations as the network such as consumer protection organizations from various professional groups and professional association of teachers who establish the network of young people to protect non-smokers, etc.

5) Gather countries as the network such as ASEAN and non-aligned movement network.
Kriengsak Charoenwongsak (2000, pp. 36-44) concluded the seven important elements of the network as follows:

1) Common Perception-Members understands problems, have moral sense, have experience in participatory problem solving which result in deep connection through doing activities together.

2) Common Vision-This leads to participation in future goals of members in the network including recognition, understanding, and the same goals. In addition, it can decrease conflict in the network.

3) Mutual Interests/Benefits-This includes both money and other incentives such as honor, fame, acceptance for progressive opportunity, happiness, and satisfaction.

4) All Stakeholders Participation-This is an important step in network development because the cooperation of all sectors is needs acceptance, make decision, and enforce the behavior. Thus, the member’s status should be equal in the horizontal relationship.

5) Complementary Relationship-This empowers assistance of those who are weaker.

6) Interdependence-As members in the network have limited resources, knowledge, and funding, they cannot live their lives completely. Consequently, their living is equal to their network existence. So the members have to help and interact with one another.

7) Interaction-All members in the network have to participate in doing activities to achieve positive interaction and exchange ideas between members. If there is more interaction, there is more highly integrated relationship.

Furthermore, Kanjana Kaewthep (2009a, pp. 412-413) gave examples in activity grouping of health network of Health Education Division by using “network criteria”. The author proposed seven categories of activities as follows:

1) Knowledge exchange activity such as the meeting about knowledge exchange of health clubs or associations

2) Shared resource activity (Shared resource) such as the mutual speakers and places. This can solve the problem regarding the lack of resources by members.
3) Mutual aid activity (Mutual aid) as a requirement
4) Field trip activity on knowledge management concept (Knowledge management) to visit the best practice organizations (Best practice),
5) Mutual activity attending festivals
6) Work process activity (Work process) for listening to opinions of others
7) Information exchange activity like radio community network

In the meantime, Samphan Techa-atik (1994, pp. 97-98) mentioned 2 factors which empower a strong network as follows:
1) Strength of network in the community such as people’s participation, activity outcome, and leaders’ strength,
2) Strength of network outside the community such as the connection with local organization and process of knowledge exchange between community and others

In addition, Pramaha Suthis Apakaro (2004, pp. 84-89) suggested that health communication needs local health network formation and development in the area. Members in the network should consist of public health officers, community leaders, local government organizations, public sector organizations, and other volunteers in the area. The public health officers help in coordination and support the health network for the integrated health operation in community.

However, strong network needs assistance from other organizations called “partnership” (Partnership). It means friends who are not in the network, i.e., individuals, group of organizations, or institutes which can provide assistance or cooperation if needed. However, “partnership” is different from “member/ associate network”. It has less intensive focus on mutual goals. The relationship is one-way direction, wherein one party asks for assistance rather than helping one another.

From the literature review mentioned above, the researcher would like to use the network theory to examine the factors and process that affect people’s health behavior.
2.7 Concept of Participatory Communication

Participatory communication means the discussion processes of individuals, groups, and institutes with the dynamic interaction. This enables change in the individual and group level so that they can realize their full potential. Moreover, participatory communication is the process in training members to realize their rights and duties through the discussion of social problems, information exchange, solution development, and making decision based on the information together (Manyozo, 2012, pp. 244-247; Parichart Sthapitanonda, 1999, pp. 72-77; Parichart Sthapitanonda et al., 2006, pp. 19-24).

Participatory communication is under the ritualistic model (Ritualistic model), which focuses on the taking turn of roles between senders and receivers through the communication processes. The most familiar ritualistic model pattern is turn taking speaking and listening called “negotiation” or “meet halfway”. Furthermore, the objective of ritualistic model communication is for “mutual character creation” (shared) such as sharing understanding, feeling, and common experience (Kanjana Kaewthep et al., 2013, pp. 171-172).

However, participatory communication focuses on the "process" (Process) rather than "outcomes" (Product) such as the development plan for Thai villages. If the village headman focuses on the product, he will work by himself. But if the village headman focuses on the process, he will arrange the meeting and villagers help to figure out the plan for their own village. Therefore, the view of “participatory feeling” is different for the aforementioned scenarios. The first plan, villagers will feel that it is “the village headman's plan”. On the other hand, in the second scenario villagers will feel this is “the development plan for our village” (Kanjana Kaewthep, 2004, pp. 7-12).

2.7.1 Characteristics of Participatory Communication

The important characteristics of participatory communication have communication components (S-M-C-R) as criteria. It can be classified into nine features as follows (Kanjana Kaewthep et al., 2013, pp. 171-174, Manyozo, 2012, pp. 244-247):
1) The communication goals focus on building “shared”, making understanding, sharing feeling, working in team, or sharing experience.

2) It is focuses on the two-way communications with the feedback for changing the dynamic of communication.

3) Senders and receivers will take turn doing their roles (Role shifting).

4) Stakeholders will take part in equal participatory communication.

5) The information is relevant or useful for everyone.

6) The communication channel may be a single or multiple channels with all types of media.

7) The communication is decentralized (Decentralized) to all stakeholders.

8) The flow of communication is from all directions, i.e., from the top to the bottom, from the bottom to the top, and in the parallel line.

9) The oral communication and written communication are integrated in the communication processes (as shown in the Figure 2.9).
Figure 2.9 Characteristics of Participatory Communication

**Source:** Adapted from Kanjana Kaewthep et al., 2013, p. 172.

In addition, Kanjana Kaewthep, Kamjorn Louisyapong, Rujira Supasa, and Weerapong Ponnikornkit. (2000, pp. 55-57) found the characteristics of participatory communication using the communication components (S-M-C-R) as criteria as follows:
1) The common goal requires that people in the community have participated in some level of communication such as people give feedback on community media building, or planning policy and making evaluation.

2) Two-way communication and interactivity-The more media facilitates interactivity, the more people participate in the activities.

3) The kind of information is relevant to the realistic community. Information is presented by dialogue exchange, request for collaboration, and making group decisions, which results in increased community participation.

4) Type of channel/ media in general include small media such as specific folk media and community media, which allow people to join activities rather than using mass media. Small media facilitate creative activities and new channels facilitate participation.

5) Receivers and feedback in participatory communication assume that senders are empty in information. However, they may have another set of knowledge, which is different from the senders’ premise. In addition, senders who have specific knowledge are active audiences and they interact by providing both formal and informal feedback.

2.7.2 Senders- Receivers in Participatory Communication

1) There is no strict separation of sender- receiver-According to the ritualistic model (Ritualistic model), the individual is often referred to as “Communicators” or “Stakeholders” rather than “Senders- Receivers”. In the participatory communication, the stakeholders always have to participate in communication. For instance in an AIDS treatment, groups of HIV infected people have to participate in the communications.

2) The communicator qualification- The participatory communication model is influenced by the philosophy of democracy. Thus, the communicator qualification should include a variety in age, gender, experience, occupation, and social status. The more varied the people; it is more possible to open a channel to reflect the people’s needs. Moreover, people who participate in the activity will be from volunteers interested in the topics. They are not attached and trust in the process and the power of the group.
3) The concept of role shifting (Role shifting) In the participatory communications model, there should be an opportunity for the role shifting situations between senders-receivers such as community seminar.

4) The relationship of communicators is the most important part of participatory communication particularly in the development of trustworthiness (Trustworthiness).

5) New entry establishment (Entry) The participatory communication is the new process. Therefore, the people involved should be supported in strength such as training in broadcast production for the new station in community, training in technique and administration.

2.7.3 The Levels of Participation

The levels of participation are classified into three stages as follows:

1) The participation in the receiver/user level (Audience/Receivers/Users) means that individuals have the opportunity to use media as “receivers, audience, listeners, and readers”. They have channels in providing feedback to senders called “Active audience”.

2) The participation in the producer/performer level (Sender/Producer/Co-producer/Performance) means individuals have the opportunity in production such as being guests in the radio program, being source, participating in topic choosing, and present that information.

3) The participation in the policy maker and planner level (Policy maker/planner) means planning and policy making in all types of communication in the community such as defining the topic and appropriate patterns, timing, administration, budget, or participation in plan and policy development (Kanjana Kaewthep, Kamjorn Louisyapong, Rujira Supasa, & Weerapong Ponnikornkit, 2000, pp. 57-61; Kanjana Kaewthep, 2008, pp. 279-258; Kanjana Kaewthep, 2009, pp. 141-142).

However, Kanjana Kaewthep (2004, pp. 18-20, 2009, p. 148) and Parichart Sthapitanonda (2006, pp. 201-203) arrived at the same opinion that to consider the participation in the individual level, there is probably no problem about “Who wants to participate and in which process?”. Mostly, participation is in the group or community levels. Therefore, in the participatory process, there must be “design/
plan” (By design) on “Who wants to participate and in which process?”. There are three steps. The first is the step of active audience. The second is the step of producer/presenter. The third is the step of planner/policy maker in choosing and designing according to goals or project objectives. People in the community may participate in some activities. They may also take part in some activities indirectly at the hand of community representatives who do activities for others. Both participation of people in community and the representatives are all accepted to be genuine participation (Genuine participation). Each step of participation is not a natural occurrence. For instance, the participation in the steps of news station development in the 7th area, Pathio District, Chumphon Province is presented the participation in each step as shown in Figure 2.10 as follows:

Figure 2.10 The Participation of People in Community Each Process
The literature review above triggers the researcher’s interest to study the extent to which participatory communication in community health communication can be the variables which affects health behavior of people in the community.

2.8 Concept of Structural Equation Model Analysis

In the past, previous researchers may use statistics to find the relationship between two variables in the analysis such as Pearson’s product moment correlation, Chi-Square, and multiple regression analysis. However, these statistics are usually based on traditional measurement theory. Variable errors are assumed to have a normal distribution with the mean of 0 and the error of variable is allowed at 1. Moreover, some statistics like regression analysis must have no error, so the tool must have the reliability of 1 which is not a natural measurement (Nonglak Wiratchai, 1995, pp. 209-214).

Figure 2.11 Example of the Research Framework for Path Analysis

Source: Adapted from Yuth Kaiwan, 2013, p. 203; Sungworn Ngadkratoke, 2014.

Figure 2.11 represents the separation analysis. For instance in the case in which the researcher has a research conceptual framework for Path analysis and the
researcher employs paired hypothesis in which variable A has relationship with variable B, variable B has relationship with variable C.

This kind of fixed separation hypothesis results in the difference between the analysis model and the research model. According to the problem above, some foreign researchers integrated factor analysis, path analysis and regression analysis and synthesized them into a new statistic called Structural Equation Model (Joreskog & Sorbom, 1993, pp. 115-131). The advantage of this new model integrates the analysis model and the research model. Moreover, the model accuracy can be tested whether it conforms to empirical data or not. LISREL: Linear Structure Relationship is usually used in the structural equation model analysis (Yuth Kaiwan, 2013, pp. 208-213).

In the analysis of Structural Equation Model, Joreskog and Sorbom (1993) divided variables into two groups. The first are the exogenous variables, which are variables in the model that is not influenced by other variables but influence other variables. The second is endogenous variables, which are variables in the model that are influenced by other variables. From Figure 2.11, variable A is the exogenous variable and variable B, C1, C2 and C3 are endogenous variables respectively.

Furthermore, Structural Equation Model consists of two important parts.

1) Measurement model is the model that identifies Linear Structural Relationship Model. It is the LISREL Model between latent variable and observed variable. There are two types of measurement models. The first is measurement model for exogenous variable or measurement model for independent variable. The second is measurement model for endogenous variable or measurement model for dependent variable. In the construct validity of the measurement model for latent variable, Confirmatory Factor Analysis or CFA is used mostly starting with the factor analysis of the latent variable. Every observed variable has factor loading and the factor loading of each observed variable should have a value of more than .50 and has statistical significance.

The criteria used to measure whether the measurement model constructed by the researcher has construct validity or not are as follows: 1) p-value of Chi-square; 2) Chi-square/df Index; 3) Goodness of Fit Index (GFI); 4) Adjusted Good of Fitness Index (AGFI); 5) Comparative Fit Index (CFI); 6) Relative Fit Index
(RFI); 7) Critical N Index (CN); 8) Root Mean Square Residual (RMR) Index; 9) Standardized Root Mean Square Residual (SRMR) Index; and 10) Root Mean Square Error of Approximation (RMSEA) Index. The criteria for measuring the correlation is more than three indices need to exceed the criteria (see further criteria information from Table 3.2, Chapter 3).

2) Structural model is the model that identifies the relationship between exogenous variable and endogenous variable by defining from concepts, theories and related research. The structural model is the confirmation of the relationship found in model fit and the model constructed by the researcher. The processes of Structural Equation Model analysis are defined as follows:

Step 1 is the study of concepts, theories and related research to develop research conceptual framework. This step will help the researcher know about which variable should be selected for the model.

Step 2 is the development of research model. In this step, after the study of data the researcher will develop the conceptual framework by defining the research model.

Step 3 is the model identification, which is the study of parameter identification without knowing from the model whether it will conform with the analysis condition or not.

Step 4 is the parameter estimation. After checking the model identification and it appears that it is over identification. The program will estimate every parameter in the model and recalculate those to Variance-Covariance of Observed variables in the model to be present in the matrix as Variance-Covariance Matrix from model estimation.

Step 5 is the Model fit. The program will minus the sample covariance matrix from the computed covariance matrix. The chi-square’s test is used to check whether the computed covariance matrix is different from the sample covariance matrix or not. If the Chi-square’s test does not show statistical significance, which means the research model correlates with the empirical data. However, if the sample is large, there is high chance that the chi-square will have statistical significance (less than .05). Therefore, in addition to the chi-square, other indexes were used as indicators for the correlation of research model and empirical data which are 1) p-
value of Chi-square 2) Chi-square/ df Index 3) Goodness of Fit Index (GFI) 4) Adjusted Good of Fitness Index (AGFI) 5) Comparative Fit Index (CFI) 6) Relative Fit Index (RFI) 7) Critical N Index(CN) 8) Root Mean Square Residual (RMR) Index 9) Standardized Root Mean Square Residual (SRMR) Index and 10) Root Mean Square Error of Approximation (RMSEA) Index. The criteria for measuring the correlation is more than three indexes need to exceed the criteria (see further criteria information from Table 3.2 in, Chapter 3).

Step 6 is the model modification. If the research model and the empirical data do not fit, the researcher has to modify the model and reanalyze until the research model and the empirical data fit (see more information from figure 3.1, Chapter 3) (Supamas Angsuchote, Somthawil Wichitwanna, & Ratchaneekul Pinyophanuwat, 2009, pp. 9-31; Yuth Kaiwan, 2013, pp. 208-228; Sungworn Ngadgratoke, 2014).

2.9 Related Research

1) Duangporn Kamnoonwatana, Porntip Usuparat, and Sunida Siwapathamchai (2012, pp. 98-111) studied “Communication for Social Changes: A Case Study of Risk Reduction of High Blood Pressure, Heart Disease, and Diabetes in Tumbon Hunkha, Hunkha District, Chainart Province.” The participants are village chiefs, village headmen, local administration staff, village volunteers, teachers, governmental officers, DJs, advertising media business owners, and people who are interested in health communication. The development involves: 1) facilitation of understanding and provision of community media information; 2) strengthening of communicative competency; 3) planning of community media production; 4) identifying the person in charge, processing methods, and publicizing means; 5) media production; and 6) putting the message into the public sphere. The media were in the form of 1) jingles for transmission towers and community radios; 2) vinyl banners; and 3) publication of health information publicized via transmission towers and community radios. These media featured disease protection tips, self-care for patients with high blood pressure, heart disease, and diabetes. The knowledge can activate perceptions, awareness of benefits from risky behavior avoidance. Moreover, community people can obtain
more satisfaction from activity participation. Finally, they are more active self-care performance.

With regard to the content, it covers eight aspects; food, drinks, cigarette/pipe tobacco/tobacco, exercise, waste excretion, rest, health expenses, and general body and mind health. For example, if a patient keeps recording his/her daily routines, he/she will notice the regular health behavior or the one he/she experiences. The person will be satisfied with activity participation and the employment of health record to investigate his/her health behavior. As a result he/she will adjust his/her health behavior such as being careful with food intakes, avoiding unhealthy drinks, doing more exercise, paying more attention to rest, which lead to good health. In line with the practices, public health staff in hospitals propose that health record that can raise awareness of health concept with regard that health relate to everyone, not only the public health staff. Besides, health must be the responsibility of the society and human resources. It is not restricted to any specific person or organization. In order to do such tasks communication is the key of successful management of health communication.

2) Duangporn Kamnoonwatana et al. (2010, pp. 92-109) has conducted a study named, “Folk Media for Youth Well-Being Project.” The results show that youths involved with three levels of folk media inheritance for the promotion of youths’ wellness in sixteen provinces across the country based on participatory communication model. To begin with, 1) Level 1: learning about folk stories and transferring skills from folk media masters and cooperating in publicity; 2) Level 2: obtaining the knowledge from folk media, participating with the production such as content selection, types of performances, and having roles in broadcasting; and 3) obtaining the knowledge from folk media, brainstorming, making decision about administration during the initial, middle, and long-term phases. The participation of teenagers in folk media inheritance is resulted from their exposure to the historic information about the community and the folk media that feature evolution of the community, goodness, peace, and health promotion by personal media. These facilitate them to understand, satisfy, be proud of, and be eager to involve with the inheritance of the media. In the study folk media for youth wellness refer to tales, objects, and ceremonies in which local people learn from communication situations with participation of an individual, groups of people, or organizations.
The contents of the folk media must be related to thoughts, beliefs, and practices that result in wellness of the body, mind, relationship of people in the community, as well as the soul. In addition, the study has proposed that folk media can holistically generate wellbeing of the body, mind, society, and soul, which include: 1) physical wellness by the direct presentation of contents about health; 2) mental wellness by the happiness from the learning opportunities and folk media presentation, the happiness from the exposure to community stories, working with elderly, teachers, family, relatives, and friends that bring out their competency; 3) social wellness from the cooperation with friends to work for the community, which bring about relationship among people with different ages, genders, and social status; and 4) soul wellness from the emphasis of folk media value to raise teenagers’ awareness of preserving the media so that they have positive attitudes toward the community and are proud of their neighborhood.

3) Choosak Ueangchokchai (2009, pp. 106-109) has investigated “Participatory Theatre for Health of Senior Citizen in Social Welfare Development Center for Elderly Persons”. The results show that senior citizens aged over sixty in Social Welfare Development Center for Elderly Persons who had the opportunity to participate participatory theatre activities through expressing the opinion, narrating the story, experiencing through activity and acting had better health such as, relaxing, enjoying, appreciating their positive self, developing their social participation and can go on living happily.

4) Naruemol Chaidee (2009, pp. 509-531) has explored “Generation and Expansion of the Body of Knowledge in Health communication of Health Personnel at Namkian Subdistrict Health Center, Phupeang District, Nan Province”. The results show that the main principal of health communication model of Namkian district obtained the knowledge about 1) participatory communication 2) communication skills which were (1) channel selection (2) message design (3) specific skills which were 1) listening 2) persuasion 3) teaching and advice 4) problem solving and 5) coordinating 3) communication strategies which were hybridization and strategies to reach 3 goals of communications; (1) strategies in order to do something that he needed to do (2) strategies to raise community participations (3) strategies to raise public concerns about alcohol assumptions. Community leaders’ communication
factors according to sender’s qualification and roles of being leader in community health communication leads to participatory two-way communication of people in the community that results in health communication about activities, community rules, organization setting and the extension of success to other officers and working in other areas.

5) Duangporn Kamnoonwatana, Niyanan Sampao-ngern, and Sunida Siwapathomchai (2008, pp. 195-221) conducted a project named, “Research and Development Project on Local Health communication.” The results show that prior to the research project, health communication has been operated in both of the provinces with regard that some public health personnel have distributed the information from the Ministry of Public Health to people. They provided health education in health service centers, distributed health leaflets in various places, and reported health news through central media, local media and community media. The use of participatory action research has been the important mechanism which gave opportunities to relevant people in health communication including public health personnel, local media, local health communication supporters, public health officers and health community to express opinions toward the steps of 1) personnel selection; 2) the consideration of potential activities; 3) participatory learning; 4) project assessment; and 5) specification of health communication. This guideline made health communicators (HCC) realize that the knowledge about communication and health are related to and important for work.

Moreover, health communicators suggested that various kinds of media can be used in health communication which were 1) personal media who has knowledge about communication, local and department which were directly responsible, local health wisdom people; 2) specialized media such as, documents, leaflets, journals; 3) mass media such as newspapers; and 4) new media such as websites. The information broadcast must be from a reliable source. The work of health communicators need the support from doctors, nurses, public health personnel, health volunteers, Thai traditional medicine, people with herbal knowledge, health association, local administrative organizations and local media. The chance of continuous and sustainable health communication depended on the following factors: 1) health communicators have clear, continuous, concrete and generally accepted achievements;
2) strong health communicators network; 3) cooperation community with health communication using participatory communication; and 4) the support from people/external organizations.

6) Auranich Chitsawaeng (2006, pp. 99-104) has investigated "Communication Patterns and Factors in Caring for the member of Bangkok Elderly Health Care Center". The results show that 1) communication form in elderly’s health between 41 to 76 years old and being members of the elderly health center, Bangkok, Suan Lumpini consisted of four communication forms regarding the criteria; (1) informal two-way communication with many reactions such as communication between elderly which was most often found in Bangkok and greatly affected the communication in elderly health centers, Suan Lumpini, (2) informal two-way communication with fewer reactions, for example, the communication between health center personnel and volunteers, (3) formal two-way communication such as the communication with doctors and health care center personnel; and (4) formal one-way communication such as communication through mass media and printed media; 2) communication factors effected elderly’s health behaviour in elderly health center, Bangkok, Suan Lumpini revealed that communication factors effected elderly behaviour consisted of (1) sender factor which were health center personnel, volunteers for exercise teaching and elderly who came for the exercises. They needed to create faith, reliability, intimacy and familiarity (2) message factors included (1) academic message (2) motivational message and (3) opinion suggest message, exchange of opinions and general issues.

Besides, the utility of the message content would massively affect the decision of elderly on participating in the activities. (3) The communication channel factor focusing on interpersonal communication with the most use of personal media which were doctors and elderly who came for the exercises. Furthermore, mass media were also used, such as television, radio, newspapers as reinforcing factors. (4) The receiver factor includes external factors, such as friends or companions, doctors and internal factors, such as the thought of having good health, long life which were the factors effected the decision to join the activities and the health behavior of the elderly. Moreover, the area of health promotion was extended from hospital to elderly health center, Bangkok. Additionally, focusing was also on two-way communication
between "Personal Media" which were health care center personnel, volunteers for exercise teaching and elderly who came to exercise. The mentioned communication forms and factors effected elderly’s satisfactory on receiving news and led to the participation in exercise, including following health behavior towards new theory of health which was taking care of oneself when still being in good health.

7) Duangporn Kamnoonwatana, Yindee Jornasomboon, and Niyanan Sampao-ngen (2006, pp. 44-52) have analyzed the “Research and Development Project of Potential Enhancement for Local Administration Organization in Distribution and Public Relation on Health Promotion”. The results show that person/group of person in four sampled sub-districts which are Hua Samrong Sub-district and Bang Lee Sub-district in Lopburi Province as well as Chumkoe Sub-district and Sapree Sub-district in Chumporn Province consist of 1) community members (volunteer, leader, people who were interested in health promotion) 2) persons from Sub-district Administration Organization (chairman and secretary) 3) officers from governmental sectors (public health officers at provincial, district, and sub-district level). Those people participated in every procedure starting from topic creation, media production, distribution, and evaluation. From the meeting of topic selection, three sub-district selected exercise topic and the other selected food topic. About media /activities, the community in Lopburi decided to develop media spots and billboards, while the community in Chumporn had held a training program for community leaders in order to make media, person, and billboard. Receivers were satisfied in produced media including its contents, communication method which allowed the group of producers and community to know their potential in media production on health promotion.

8) Wasana Chansawang, Nataya Khiangchiphuek, Yutapong Kwanchuen, Wittaya Teinjuang, Pongohan Antarikhanon, and Nitas Sirichorat. (2005, pp. 95-108) has conducted a study named, “Study of Communication Process on Health Campaign”. The results show that the communication process of health campaigns in government, non-government, private and community organizations utilize two-way communications. They had the contents about exercises, health and nutrition using individual messenger, event specific message, and mass media. The results of the campaign showed that the majority of the target group had the awareness but lacked
the consciousness and sustainability in health practices. In order to have effective health campaign, the health messengers had to have high level of trustworthiness and public concerns, while the message should be on holistic health. Individual messengers and mixed media communicated the message. Receivers should also be involved individuals in health campaign. Influential factors in health campaign were leaders, social support, budget, involvement, participatory communication, networking and network communication, holistic health promotion, and community-center campaign.

9) Rangsima Nilobol (2004, pp. 228-246) has studied the “New Communication Paradigm for Health Promotion of Civic Society”. The results show that of all theses of Faculty of Communication Arts, Chulalongkorn University from 1981 to 2002, 178 theses had concept about health communication focusing on active health behavior of receiver and health participatory communication. The target group of the health issue expanded from individuals to community, family, group and association. Moreover, research area was extended from big cities to rural areas. Small media such as, individual messenger, community messenger, event specific message, activity messenger and folk media were media that the community could produce, use and control and these media content related to life, society and culture including more open opportunities for people to participate in communication process of “health promotion”.

Except for the focusing on "health problem solution" in the community, the new paradigm of health communication also focused on the extension of relationship network. It emphasized the cooperative learning concerning self-reliance, helped each other in the civic society and synergized to empower the communication, negotiation, asked for cooperation from groups, government section, private section or related local network outside the civic society.

The important factors affecting the success of the communication process of health promotion of civic society included ability in being the communicator for the community members, communication process components. This correlated with social contexts, culture, and way of life in civic society, giving opportunity to civic society to participate in the communication process, relationship among people in the civic society and network, relationship with government section, private section and other civic societies outside the community.
The Communication Guidelines for health promotion in civic society focused on using accepted and trusted media. These were personal media, not including the leaders appointed or assigned by government authorities such as, monks, local wisdom elite, and folk doctor. Local media included specific culture of each community and activity media towards two way participatory communication such as, focus group meeting, discussion and building relationship meeting activities. These media were integrated to urge attention and realization in health problem which will lead to changed attitude and behavior towards health promotion.

10) Chantip Palanandana (2002, pp. 128-136) has investigated the “Communication Competency of Community Leaders”. The results show that five local leaders selected. The criteria included membership from committee members at national level and lived in the community for more than ten years and representing the Thai community leaders of Thai society. The leader samples composed of Buddhist monks, male and female leaders in both urban and rural community. Findings are as follows: 1) The community leaders seek information to perform their duty of community development. The most popular source of information sought is human media such as community people, authorities and experts in various areas. Field trip to project sites and documents were the second most often used to seek information. 2) To manage the information, leaders assess source credibility by considering whether the information is congruent with leaders' former knowledge. It will then be analyzed, apprehended, categorized and applied. The leaders hardly deleted the information even though it was not interesting. They would delete the information later by forgetting it when it was not used. If the information did not correlate with the previous knowledge, the leaders would keep and find a chance to check its accuracy or use it as information later. And 3) The communication tactics facilitating the success of being effective community leaders such as, information receiving tactics by adopting the learning principle and two-side principle. There are three different phases to use different tactics of message transferring: 1) Phase of determining problem, interest making, and motivating cooperation include preaching - talking, publicity through community broadcasting tower persuasive information providing, choosing and solving problem, and making-self example; 2) Phase of Action include communication for learning, people participation building, field trip, communication
for project management, and moral boosting; and 3) Phase of People Acceptance include community leaders using two-way communications.

11) Poldej Pinprathip (2002, pp. 40-47) has examined “Promoting the Civil Society and Mass Media for Health System Reform”. The results show that the cooperation model development for creating health system reform movements on existing relationships among three local networks: public health network, mass media network and civil society network. The area of study included Nakornratchasima, Trung, Phitsanuloke and Samutprakarn in the process of social movements promoting the health system reform to be a consensus local agenda. The issue of “social health” was found to be possible and appropriate because local communities had holistic viewpoints for their health. A civil society of mass media for local health could be easily organized by setting a angular platform for health issue dialogue. The stakeholders, local intellectuals, academics, professionals, mass media and traditional media were the target groups to participate the forum, which should be started from their common health problems or same local public issues.

12) Suttipa Wongyala (2000, pp. 111-123) has studied the “Communication Patterns and Effectiveness According to The Guidance of Health Promotion for The Large Size Industrial Workers”. The qualitative results show that large size industrials which had more than 1,000 workers and participated in the pilot project of health promotion in the workplace held under the cooperation of Health System Research Institute (HSRI) and Social Security Office had communication patterns divided into 1) Utilization of Interpersonal Communication to address knowledge, counseling, suggestion, and health promotion information including public relation activities on health from medical doctors and nurses on sites, medical doctors from hospitals, safety officer, responsible health promotion officers, section chiefs at different levels and industrial workers; 2) Utilization of special media to disseminate knowledge and health promotion information including public relation activities on health topics which cover posters, leaflets, journals, posting, news, public address, and videotape on health promotion; 3) Utilization of mass media to provide knowledge and stress release to industrial workers via television, video films and newspapers; and 4) Utilization of health promotion activities such as physical health checkups, exercise, annual sports competitions, trainings, seminars, displays, and campaigns for other
health promotion topics. 2) The quantitative results showed that workers exposed to health promotion media through video films about preventing accidents from working the most and most workers exposed to the content on self-protection from different kinds of disease. Moreover, most workers had high knowledge and attitude on Health Promotion and they had health promotion behavior on no smoking and no risky behavior through sexual transmitted disease the most. The results from the hypothesis testing showed that the media exposure on health promotion correlated with workers’ health promotion behavior and knowledge on health promotion correlated with attitude on Health Promotion.

13) Napaporn Moonmuang (1995, pp. 67-77) has investigated “People Grouping for Health Care development in Rural Community”. The results show that people coming together for health care development from the past to present was directly oriented toward health development goal. They formally organized undertaking health-related activities by themselves and receiving support from both the public and private sectors for example, senior citizens, health volunteers and youth groups. The other type was indirectly involved with health development matters. People organization was a natural phenomenon and ad hoc nature when their community experienced health problems. For instance when a serious diarrhea occurred, or when community members had difficulties with health service places. The conditions were the relationship of people in the community, the communication that leaded to understanding, the satisfactory in sharing similar benefits that lead to cooperation and relationship among people in the group.

2.10 Conceptual Framework

With regard to the literature review, theories, and related research, the researcher found that the health behavior variables of people in the community can be divided into 2 situations according to community situations which were 1) health behavior in the normal situation, and 2) health behavior in unusual situation. The causes of both behaviors are result from three causal variables which are 1) communication factors which consist of communication channels in both the old and new media, including the opinions of community people on the message sender’s
knowledge, attitude on health issues communication and the consideration of social and cultural contexts; 2) community satisfaction in regards to acquiring health communication information consists of the satisfaction on form/content of media that correlated with the need, previous knowledge and the updated information that can be used to exchange with other people; and 3) participatory communication in community health communication which deals with participation in three phrases; the decentralization of health message content to relevant sectors, equality of healthcare communication for everybody/every organization and the decentralization on healthcare communication content from public health personnel to everybody and every organization in the society. Additionally, the researcher has also found that the communication factor variables, satisfactory, and participatory communication variables have impacts on each other and cannot obviously be separated to determine which one is the independent variable or dependent variable.
CHAPTER 3

RESEARCH METHODOLOGY

The research titled “The Development of a Structural Equation Model of Communication Factors for Health Communication of Community” was implemented using the mixed method technique. The research can be categorized into 2 phases: The first step is the qualitative research method utilizing the in-depth interview technique and semi-structured interviews were employed for collecting data. Therefore, key informants were able to respond based on topics and questions prepared in advance which were open-ended questions. However, the researcher has the flexibility to improve, adjust, or add questions corresponding to actual context. Subsequently, the researcher analyzed the qualitative results with consideration of the reviewed concepts, theories, and related literatures in order to improve and develop questions for the questionnaire. This research tool was used for developing the structural equation model of communication factors for community health communication to examine the congruence between research model and empirical data. The second step is the quantitative method utilizing the survey research technique using a close-ended questionnaire was employed for collecting data. The researcher has presented the 2014’s Assessment details of Disease Control Competent District under District Health System in Part 3.

3.1 Step I Qualitative Method

3.1.1 Material

In-depth interview technique: The researcher selected this technique by interviewing key informants who are representatives from every sector involved in community health communication operation consisting of 1) Public health sector, 2) Local administrative sector, and 3) Public sector who resided or earned a living in the area of 1) Phra Nakhon Si Ayutthaya district, Phra Nakhon Si Ayutthaya, 2) Bang Yai
district, Nonthaburi, and 3) Nong Sua district, Pathum Thani. During the in-depth interview process, the researcher was able to highlight the ambiguous answers and set new questions, which corresponded to the actual situation. The process was repeated until the researcher completed the questions satisfactorily, which is different from normal interviews, where the researcher only asked along the planned questions.

3.1.2 Material Design

This research methodology was qualitative method, which employed in-depth interview technique for data collection. As a consequence the research tool used was a semi-structural interview. Guided questions were constructed to adhere to research objectives. They were developed from reviewing the concepts of the Theory of Reasoned Action and Communication. However, due to the diversity in educational and occupational backgrounds of key informants, the researcher separated the research material into 2 parts: Part 1: For public health and local administrative officers. And Part 2: For public sector. However, the guided questions of both parts still adhered to the research objectives.

3.1.3 Participants and Sampling Procedures

1) Participants selection criteria: Participants in this research were key informants involved in community health communication operations. This included public health operators, the local administrative officers, and the general public, from three successful districts totaling 20 respondents.

2) Sampling procedures: The researcher utilized the following two methods: 1) Purposive sampling method was used for sampling key informants from the public health officers. The next step is 2) snowball sampling method, which required public health officers to introduce leaders from local administrative and public sectors involved in health communication operation.

3.1.4 Data Source

1) Document source: Texts and academic journals based on health communication issues both from Thai scholars and international databases, information from website and annual report of Department of Disease Control and
Office of Disease Prevention and Control, 1st Area, Bangkok, Ministry of Public Health, academic journals of Department of Disease Control, and theses based on community health communication issues.

2) Personal source: Key informants were representatives from all sectors involved in community health communication operation consisting of 1) Public health sector, 2) Local administrative sector, and 3) Public sector who resided or earned a living in the area of (1) Phra Nakhon Si Ayutthaya district, Phra Nakhon Si Ayutthaya, (2) Bang Yai district, Nonthaburi, and (3) Nong Sua district, Pathum Thani. i.e. 1) Officers from Office of Disease Prevention and Control, 1st area, Bangkok, 2) Provincial public health officers, 3) District public health officers, 4) Central hospital officers, 5) Officers in sub-district hospitals, 6) Municipality officers, 7) Sub-district administration officers, 8) Surveillance and rapid response teams (SRRTs), and 9) Public health volunteers and Community leader, totaling 20 persons.

3.1.5 Samples and List of Samples’ Name

The researcher categorized the representative samples into 2 groups: 1) Central group included officials from Office of Disease Prevention and Control, 1st Area, Bangkok, and 2) Regional group included public health officers, local administrative officers, and public health volunteers from (1) Phra Nakhon Si Ayutthaya district, Phra Nakhon Si Ayutthaya, (2) Bang Yai district, Nonthaburi, and (3) Nong Sua district, Pathum Thani. The researcher employed research questions and research objectives as the criteria to categorize the sample as follows:

3.1.5.1 To Study the Means of Communication Based on the three Paradigms of Health in Successful Communities:

Those who are involved in health communication operations both within and outside the community:

1) Network and partnership development officer from Office of Disease Prevention and Control, 1st Area, Bangkok
2) Provincial public health officer
3) District health officer
4) Central hospital officer
5) Sub-district hospital officer
6) Surveillance and rapid response team (SRRT)
7) Public health volunteer and Community leader

3.1.5.2 To Analyze Communication Factors that Lead to the Success
Stories of Communities in Health Communication:

Those who are involved in health communication operations both within and outside the community:

1) Network and partnership development officer from Office of Disease Prevention and Control, 1st Area, Bangkok
2) Provincial public health officer
3) District health officer
4) Central hospital office
5) Sub-district hospital officer
6) Municipal officer
7) Sub-district administrative officer
8) Surveillance and rapid response team (SRRT)
9) Public health volunteer and Community leader

List of samples’ name and position are provided in detail in Table 3.1:
Table 3.1  Key Informants’ Name List Those Who Involved in Community Health Communication Operation

<table>
<thead>
<tr>
<th>No.</th>
<th>Name</th>
<th>Position/Section</th>
<th>Institute/ Subordinated to</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td><strong>Office of Disease Prevention and Control, 1st Area, Bangkok</strong></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>Tanya Rodsuk</td>
<td>Assessor of “Excellent District Health System Award” in 2012-2015’s Area-level assessment</td>
<td>Office of Disease Prevention and Control, 1st Area, Bangkok</td>
</tr>
<tr>
<td>2.</td>
<td>Sirima Thananun</td>
<td>Assessor of “Excellent District Health System Award” in 2012-2015’s Area-level assessment</td>
<td>Office of Disease Prevention and Control, 1st Area, Bangkok</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>Bang Yai District, Nonthaburi</strong></td>
</tr>
<tr>
<td>1.</td>
<td>Jiradech Thongrueng</td>
<td>Public health technical officer, Professional level and SRRT</td>
<td>Bang Yai District Public Health Office</td>
</tr>
<tr>
<td>2.</td>
<td>Temduang Santinoranont</td>
<td>Public health technical officer, Professional level and SRRT</td>
<td>Nonthaburi Provincial Public Health Office</td>
</tr>
<tr>
<td>3.</td>
<td>Kuapaya Ritsantea</td>
<td>Nursing technical officer, Professional level and SRRT</td>
<td>Sao Thong Hin Subdistrict Hospital</td>
</tr>
<tr>
<td>4.</td>
<td>Tassanee Jeensooksaeng</td>
<td>Nursing technical officer, Professional level and SRRT</td>
<td>Sao Thong Hin Subdistrict Hospital</td>
</tr>
<tr>
<td>5.</td>
<td>Porntip Chodchoi</td>
<td>Community leader and Aerobic club leader and SRRT</td>
<td>Bang Yai District Public Health Office</td>
</tr>
</tbody>
</table>
Table 3.1 (Continued)

<table>
<thead>
<tr>
<th>No.</th>
<th>Name</th>
<th>Position/Section</th>
<th>Institute/ Subordinated to</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.</td>
<td>Tubtim Srikao</td>
<td>Public health volunteer and SRRT</td>
<td>Bang Yai District Public Health Office</td>
</tr>
<tr>
<td>7.</td>
<td>Apawadee Siwimolpanich</td>
<td>Public health volunteer and SRRT</td>
<td>Sao Thong Hin Subdistrict Hospital</td>
</tr>
</tbody>
</table>

**Phra Nakhon Si Ayutthaya district, Phra Nakhon Si Ayutthaya**

1. Thaluengkiart Sanbud  
   Public health technical officer, Professional level and SRRT  
   Phra Nakhon Si Ayutthaya District Public Health Office

2. Yanasa Santiyakul  
   Public health technical officer, Professional level and SRRT  
   Phra Nakhon Si Ayutthaya Central Hospital

3. Songwut Krajanyao  
   Public health technical officer, Professional level and SRRT  
   Phra Nakhon Si Ayutthaya Provincial Public Health Office

4. Samrit Torsati  
   Registered nurse 8  
   Phra Nakhon Si Ayutthaya City Municipality

5. Waree Superee  
   Chairman of Public health volunteer and SRRT  
   Phra Nakhon Si Ayutthaya City Municipality
Table 3.1 (Continued)

<table>
<thead>
<tr>
<th>No.</th>
<th>Name</th>
<th>Position/Section</th>
<th>Institute/ Subordinated to</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.</td>
<td>Namtip Pansrikhae</td>
<td>Chairman of Public health volunteer and Community leader</td>
<td>Phra Nakhon Si Ayutthaya District Public Health Office</td>
</tr>
<tr>
<td>7.</td>
<td>Suwanee Yujui</td>
<td>Chairman of Public health volunteer</td>
<td>Phra Nakhon Si Ayutthaya City Municipality</td>
</tr>
</tbody>
</table>

Nong Sua District, Pathum Thani

<table>
<thead>
<tr>
<th>No.</th>
<th>Name</th>
<th>Position/Section</th>
<th>Institute/ Subordinated to</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Visan Sawaengha</td>
<td>Chief Executive of the SAO and SRRT</td>
<td>Bueng Ba Sub-district Administrative Organization</td>
</tr>
<tr>
<td>2.</td>
<td>Thitiya Limpairoj</td>
<td>Section of Sanitation and Environmental health and SRRT</td>
<td>Bueng Ba Sub-district Administrative Organization</td>
</tr>
<tr>
<td>3.</td>
<td>Siwaporn Katekaew</td>
<td>Chairman of Public health volunteer and SRRT</td>
<td>Bueng Ba Sub-district Administrative Organization</td>
</tr>
<tr>
<td>4.</td>
<td>Somdech Eiamchai</td>
<td>Village headman and Public health volunteer</td>
<td>Nong Sua Sub-district Administrative Organization</td>
</tr>
</tbody>
</table>
3.1.6 Material Verification

The researcher employed the data triangulation technique to verify trustworthiness of the data obtained from key informants who were involved in the various sectors including public health sector, local administrative sector, and public sector involving in community health communication operation both of within and outside community. This is done in order to gain variety and saturation of data phenomenon to best describe the actual phenomenon creditably (Siriporn Chirawatkul, 2009, pp. 177-180).

3.1.7 Step of Conducting Research

For the field study research, the following procedures for analysis were developed:

1) The researcher studied information derived from the three successful districts to study health communication behavior in the communities which have obtained the highest scores in 2014’s Area and Province-level assessment by Office of Disease Prevention and Control, 1st Area, Bangkok, including 1) Phra Nakhon Si Ayutthaya district, Phra Nakhon Si Ayutthaya, which received “Excellent District Health System Award” in 2014’s Area-level assessment, and added 2) Bangyai district, Nonthaburi, and Nongsua district, Pathum Thani. These districts have all received the highest scores in 2014’s Province-level assessment from officers from Network and partnership development department from Office of Disease Prevention and Control, 1st Area, Bangkok.

2) Conduct in-depth interview process with officers from Network and Partnership Development Department from Office of Disease Prevention and Control, 1st Area, Bangkok.

3) Interviewing officers from Network and partnership development department from Office of Disease Prevention and Control, 1st Area, Bangkok and coordinated with Provincial public health officer and District public health officer in order to introduce key informants by employing snowball technique sampling, who were the representatives from every sector which involved in community health communication operation consisting of 1) Public health sector, 2) Local administrative sector, and 3) Public sector who resided or earned a living in the area of 1) Phra
Nakhon Si Ayutthaya district, Phra Nakhon Si Ayutthaya, 2) Bang Yai district, Nonthaburi, and 3) Nong Sua district, Pathum Thani

4) Conducting in-depth interviews with key informants who were representatives from all sectors involved in community health communication operation consisting of 1) Public health sector, 2) Local administrative sector, and 3) Public sector who resided or earned a living in the area of 1) Phra Nakhon Si Ayutthaya district, Phra Nakhon Si Ayutthaya, 2) Bang Yai district, Nonthaburi, and (3) Nong Sua district, Pathum Thani. i.e. 1) Officers from Office of Disease Prevention and Control, 1st area, Bangkok, 2) Provincial public health officers, 3) District public health officers, 4) Central hospital officers, 5) Officers in sub-district hospitals, 6) Municipality officers, 7) Sub-district administration officers, 8) Surveillance and rapid response teams (SRRTs), and 9) Public health volunteers and Community leader, totaling 20 persons.

5) Analyzing the qualitative research results with consideration to the concepts, theories, and related literature in order to improve and develop questions for questionnaire that will be used for the structural equation model of communication factors for community health communication

3.1.8 Data Collection Period
August, 15, 2015-November, 30, 2015

3.1.9 Data Collection Instruments
Tape recorder, note book, and smart phone for taking photographs

3.1.10 Guided Questions for Interviewing
The researcher divided question guide into 2 parts based on the 2 research objectives as follows:

1) To study the means of communication based on the three paradigms of health in successful communities

   Researcher posed a questions based on 1) Concept of Health Communication, 2) Concept of Sender's Communicative Factors, 3) Concepts and Theories of Receiver, 4) Concept of Network, 5) Concept of Participatory
Communication, and 6) 2014’s Assessment Report of Disease Control Competent District under District Health System

2) To analyze the communication factors that lead to the success stories of communities in health communication

Researcher posed a question based on 1) Concept of Health Communication, 2) Concept of Sender’s Communicative Factors, 3) Concepts and Theories of Receiver, 4) Concept of Network, 5) Concept of Participatory Communication, and 6) 2014’s Assessment Report of Disease Control Competent District under District Health System

(Guided question details are in Appendix B)

3.1.11 Data Analyses

The researcher transcribed the complete raw data obtained from the in-depth interview process, which was done with a systematized form of descriptive analysis based on research objectives and reviewed theories and concepts as conceptual tools for systematic analysis (Siriporn Chirawatkul, 2009, pp. 20-38; Chai Pothisita, 2013, pp. 63-77).

Therefore, researcher would present the analysis of the qualitative data for in response to two research objectives as follows:

1) To study the means of communication based on the three paradigms of health in successful communities.

2) To analyze the communication factors that lead to the success stories of communities in health communication.

3.1.12 Association to Quantitative Research

Researcher analyzed qualitative results together with reviewing concepts, theories, and related literatures in order to improve and develop questions in questionnaire included structural equation model of communication factors for community health communication to examine the congruence between research model and empirical data in Step 2: Quantitative research.
3.2 Step II: Quantitative Research

At this stage the research presents the findings categorized in 11 topics as follows:

3.2.1 Population

The population for this research are those involved in community health communication resided or earned a living in the area of 1) Phra Nakhon Si Ayutthaya district, Phra Nakhon Si Ayutthaya, 2) Bang Yai district, Nonthaburi, and 3) Nong Sua district, Pathum Thani, including (1) Public health officers, (2) Local administrative officers, (3) Public health volunteers, (4) Community leaders, (5) Government officers, (6) Students, (7) Entrepreneurs, (8) Employers, (9) Employees, and (10) the General public.

Population information from Department of Provincial Administration, Ministry of Interior indicated that population in the area of 1) Phra Nakhon Si Ayutthaya district, Phra Nakhon Si Ayutthaya was about 158,584 persons, 2) Bang Yai district, Nonthaburi was about 111,464 persons, and (3) Nong Sua district, Pathum Thani totaled roughly 48,774 people. In total the 3 districts numbered about 318,822 people (Department of Provincial Administration, 2014)

3.2.2 Representative Sample and Sample Size Determination

3.2.2.1 Representative Sample

The sample was drawn from the population of those who are involved in community health communication including public health officers, local administrative officers, public health volunteers, community leaders, government officers, students, entrepreneurs, employers, employees, and the general public.

3.2.2.2 Sample Size Determination

The researcher is required to have a sample size no less than 20 times the number of observed variables in order to use inferential statistics analysis for structural equation modeling. In this model, the researcher had 18 observed variables; therefore, the sample size was determined to be no less than 360 (18\times20) (Supamas Angsuchote, Somthawil Wichitwanna, & Ratchaneekul Pinyophanuwat, 2009, p. 31;
Consequently, the researcher decided to increase the sample size to be 400 respondents, which is consistent with the criteria of Yamane (1973, p. 886) to specify sampling reliability at 95% confidence level and sampling error at 5%.

3.2.3 Sampling Procedures

Step I: Purposive Sampling

Researcher decided to single out three successful districts to study health communication behavior in community which had obtained highest scores in 2014’s Area and Province-level assessment by Office of Disease Prevention and Control, 1st Area, Bangkok, including 1) Phra Nakhon Si Ayutthaya district, Phra Nakhon Si Ayutthaya, which received “Excellent District Health System Award” in 2014’s Area-level assessment, and added up 2) Bangyai district, Nonthaburi, and Nongsua district, Pathum Thani, which had all received highest scores in 2014’s Province-level assessment.

Step II: Multi-stage Random Sampling

In this step, the researcher employed both probability-sampling techniques (simple random sampling), non-probability sampling techniques (quota sampling), and concluded with convenience sampling to collect data. The details are given as follows:

A review of the documents revealed area boundaries and administrative divisions of 1) Phra Nakhon Si Ayutthaya district, Phra Nakhon Si Ayutthaya, 2) Bang Yai district, Nonthaburi, and 3) Nong Sua district, Pathum Thani had a record of 34 sub-districts; 24 sub-districts situated in Phra Nakhon Si Ayutthaya district, 6 sub-districts situated in Bangyai district, and 7 sub-districts situated in Nongsua district.

The researcher defined the criteria to select 60% of the sub-districts from each district. As a result there were 20 sub-districts included in the data collection including 13 sub-districts situated in Phra Nakhon Si Ayutthaya district, i.e. 1) Lumphli, 2) Hantra, 3) Samphao Lom, 4) Phukao Thong, 5) Ko Rian, 6) Pratu chai, 7) Ho Rattanachai, 8) Phai Ling, 9) Wat Tum, 10) Suan Phrik, 11) Khlong Takhien, 12) Hua Ro, and 13) Ban Ko. This included 3 sub-districts situated in Bang Yai district including, (1) Sao Thong Hin, (2) Bangyai, (3) Ban Mai. In addition 4 sub-districts
were added from Nong Sua including (1) Bueng Ba, (2) Nong sua, (3) Nong Sam Wang, and (4) Bueng Bon.

After that, the researcher employed the quota sampling approach to collect 20 respondents from the 20 sub-districts. Then the convenient sampling was used to collect data in high-density areas such as public health agencies, government agencies, state enterprise agencies, group careers, and the schools, until the number of 400 respondents was reached.

However, the respondents who were selected as representative samples in this research had to respond that “They had been exposed to information related to health communication from media in the community” which is part of the recruitment questionnaire.

3.2.4 Data Collection
A questionnaire with close-ended questions was employed to collect data during February 1, 2016-April 30, 2016, totaling 60 days

3.2.5 Research Tool
The questionnaire with close-ended questions was employed as research tool for collecting data. The questionnaire structure can be divided into 5 parts. In conclusion the researcher would take the findings from the qualitative research analyzed using the theories, concept, and related literatures reviewed to develop and adjust the questions. Structure of question consisted of:

Part 1 Respondents’ demographic characteristics including gender, age, educational level, occupation, and average income per month, totaling 5 questions

Part 2 Communication factors, totaling 21 questions

Part 3 Role of personal media in order to be health communication leader in the community, totaling 8 questions

Part 4 Community satisfaction in regards to acquiring health communication information, totaling 16 questions

Part 5 Participatory communication in community health communication, totaling 14 questions

Part 6 Health behavior of community, totaling 15 questions
3.2.6 Variable Definition

This structural equation model consisted of 1 exogenous variable and 4 endogenous variables as follows:

3.2.6.1 The Exogenous Variable is Not Influenced by Other Variables.

It is Defined as follows:

Communication factors is the latent variable which consisted of 4 observed variables as follows: 1) Frequency of media exposure (Part 2.1, Question No. 1-6), 2) Skill and knowledge of sender towards health communication (Part 2.2, Question No. 1-5), 3) Attitude of sender towards receiver and health communication content (Part 2.1, Question No. 6-8), and 4) Sender’s consideration of social and cultural context to communicate health issues (Part 2.1, Question No. 9-10).

3.2.6.2 The Endogenous Variables are the Variables Influenced by Other Variables. These Include the following:

1) Community satisfaction on acquiring health communication information is a latent variable which consisted of 4 observed variables as follows: 1) Obtaining information, knowledge and advice related to health promotion (Part 3, Question No. 1-4), 2) Obtaining health information consists of the community’s taste and needs (Part 2.3, Question No. 5), 3) Two-way and participatory communication in health communication (Part 3, Question No. 6-10), and 4) Seeing a proper model from health senders (Part 3, Question No. 11-16).

2) The role of personal media in order to be health communication leader in community is a latent variable which consisted of 4 observed variables as follows: 1) Role in being a role model of health promotion (Part 2.3, Question No. 1-2), 2) Role in supporting health activities (Part 2.3, Question No. 3-4), 3) Role in public hearing and having public mind in health operations (Part 2.3, Question No. 5-6) and, 4) Role in educating and inspiring of health promotion (Part 2.4, Question No. 7-8).

3) The participatory communication in community health communication is a latent variable which consisted of 4 observed variables as follows: 1) Three levels of community participation (Part 4, Question No. 1-8), 2) Health information exchange is beneficial to all stakeholders (Part 4, Question No. 9), 3) Equality in health communication from all people and agencies (Part 4, Question No.
10-11), and 4) Decentralization of health content from public health officers to all stakeholders (Part 4, Question No. 12-14).

4) The health behavior of community is a latent variable which consisted of 2 observed variables as follows: 1) Health behavior in unusual situation (Part 5, Question No. 1-7) and 2) Health behavior in normal situation (Part 5, Question No. 8-15).

### 3.2.7 Variables and Score Measurement

#### 3.2.7.1 Variable
The variables in this structural equation model can be classified into 2 types. The first is the exogenous variable, which is communication factors, and the endogenous variables which are role of personal media in order to be health communication leader in community, community satisfaction in regards to acquiring health communication information, participatory communication in community health communication, and health behavior of community.

#### 3.2.7.2 Score Measurement

1) Communication Factors

(1) Frequency of Media Exposure Related to Health Communication Information

The measurement of frequency of media exposure was rated on five-point Likert scale:

<table>
<thead>
<tr>
<th>Evaluation Level</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highest</td>
<td>5</td>
</tr>
<tr>
<td>High</td>
<td>4</td>
</tr>
<tr>
<td>Medium</td>
<td>3</td>
</tr>
<tr>
<td>Low</td>
<td>2</td>
</tr>
<tr>
<td>Lowest</td>
<td>1</td>
</tr>
</tbody>
</table>

Interpreted Criteria

4.21-4.50 means the highest level in frequency of media in community exposure related to health communication information

3.41-4.20 means high level in frequency of media in community exposure related to health communication information
2.61-3.40 means medium level in frequency of media in community exposure related to health communication information

1.81-2.60 means low level in frequency of media in community exposure related to health communication information

1.00 -1.80 means the lowest level in frequency of media in community exposure related to health communication information

(2) Opinion on Those Who are Involved in Community Health Communication towards Providing Health Communication Information by Media In Community

The measurement of opinion of those who are involved in community health communication toward providing health information by media in community was rated on five-point Likert scale:

<table>
<thead>
<tr>
<th>Evaluation Level</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly agree</td>
<td>5</td>
</tr>
<tr>
<td>Agree</td>
<td>4</td>
</tr>
<tr>
<td>Neutral</td>
<td>3</td>
</tr>
<tr>
<td>Disagree</td>
<td>2</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>1</td>
</tr>
</tbody>
</table>

Interpreted Criteria

4.21-4.50 means strongly agree with providing health communication information by media in community

3.41-4.20 means agree with providing health communication information by media in community

2.61-3.40 means being neutral with providing health communication information by media in community

1.81-2.60 means disagree with providing health communication information by media in community

1.00 -1.80 means strongly disagree with providing health communication information by media in community
2) Role of Personal Media in Order to be Health Communication Leader in Community

The measurement of role of personal media in order to be health communication leader in community was rated on five-point Likert scale:

<table>
<thead>
<tr>
<th>Evaluation Level</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly agree</td>
<td>5</td>
</tr>
<tr>
<td>Agree</td>
<td>4</td>
</tr>
<tr>
<td>Neutral</td>
<td>3</td>
</tr>
<tr>
<td>Disagree</td>
<td>2</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>1</td>
</tr>
</tbody>
</table>

Interpreted Criteria

4.21-4.50 means strongly agree with role of personal media in order to be health communication leader in community

3.41-4.20 means agree with role of personal media in order to be health communication leader in community

2.61-3.40 means be neutral in role of personal media in order to be health communication leader in community

1.81-2.60 means disagree with role of personal media in order to be health communication leader in community

1.00 -1.80 means strongly disagree with role of personal media in order to be health communication leader in community

3) Community Satisfaction in regards to Acquiring Health Communication Information

The measurement of community satisfaction in regards to acquiring health information was rated on five-point Likert scale:

<table>
<thead>
<tr>
<th>Evaluation Level</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highest</td>
<td>5</td>
</tr>
<tr>
<td>High</td>
<td>4</td>
</tr>
<tr>
<td>Medium</td>
<td>3</td>
</tr>
<tr>
<td>Low</td>
<td>2</td>
</tr>
<tr>
<td>Lowest</td>
<td>1</td>
</tr>
</tbody>
</table>
Interpreted Criteria
4.21-4.50 means the highest level of satisfaction in regards to acquiring health communication information
3.41-4.20 means high level of satisfaction in regards to acquiring health communication information
2.61-3.40 means neutral level of satisfaction in regards to acquiring health communication information
1.81-2.60 means low level of satisfaction in regards to acquiring health communication information
1.00 -1.80 means the lowest level of satisfaction in regards to acquiring health communication information

4) Participatory Communication in Community Health Communication

The measurement of participatory communication in community health communication was rated on five-point Likert scale:

<table>
<thead>
<tr>
<th>Evaluation Level</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highest</td>
<td>5</td>
</tr>
<tr>
<td>High</td>
<td>4</td>
</tr>
<tr>
<td>Medium</td>
<td>3</td>
</tr>
<tr>
<td>Low</td>
<td>2</td>
</tr>
<tr>
<td>Lowest</td>
<td>1</td>
</tr>
</tbody>
</table>

Interpreted Criteria
4.21-4.50 means the highest level in participating in community health communication
3.41-4.20 means high level in participating in community health communication
2.61-3.40 means neutral level in participating in community health communication
1.81-2.60 means low level in participating in community health communication
1.00 -1.80 means the lowest level in participating in community health communication
5) Health Behavior of Community

The measurement of health behavior of community was rated on five-point Likert scale:

<table>
<thead>
<tr>
<th>Evaluation Level</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highest</td>
<td>5</td>
</tr>
<tr>
<td>High</td>
<td>4</td>
</tr>
<tr>
<td>Medium</td>
<td>3</td>
</tr>
<tr>
<td>Low</td>
<td>2</td>
</tr>
<tr>
<td>Lowest</td>
<td>1</td>
</tr>
</tbody>
</table>

Interpreted Criteria

4.21 - 4.50 means the highest level in agreement or practice along health behavior
3.41 - 4.20 means high level in agreement or practice along health behavior
2.61 - 3.40 means medium level in agreement or practice along health behavior
1.81 - 2.60 means low level in agreement or practice along health behavior
1.00 - 1.80 means the lowest level in agreement or practice along health behavior

3.2.8 Validity and Reliability Testing

Content validity was established by the Dissertation Committee. This included the appropriateness of used language, the clarity of questions, and the coverage of question in questionnaire in order to develop and adjust questions to be appropriate and was able to respond all research objectives.

After collecting the data from representative samples, the researcher examined the construct validity through Confirmatory Factor Analysis (CFA). The construct validity was established by adherence to the 10 determined criteria indicators out of 13 (Hair et al., 2014; Yuth Kaiwan, 2013, p. 228). The model’s fit indicators were accepted with the following details: 1) Chi-Square/df = 2.84 (< 5.00), 2) Comparative Fit Index (CFI) = 0.99 (> 0.95), (> 0.90), 3) Normed Fit Index (NFI) = 0.99 (> 0.95),
4) Non-normed Fit Index (NNFI) = 0.99 (> 0.95), 5) Standardized Root Mean Square Residual (SRMR) = 0.036 (< 0.05), 6) Goodness of Fit Index (GFI) = 0.92 (> 0.90), 7) Incremental Fit Index (IFI) = 0.98 (> 0.95), 8) Relative Fit Index (RFI) = 0.98 (> 0.95), 9) Root Mean Square Residual (RMR) = 0.029 (< 0.05) and 10) Standard Root Mean Square Residual (SRMR) = 0.036 (< 0.05). Furthermore, the 18 observed variables from 5 latent variables all had .01 and 0.05 level of significance and almost factor loadings had values more than 0.50.

Prior to actual data collection, the questionnaires were distributed to 40 pilot respondents in order to examine the internal consistency reliability by using Cronbach’s alpha (Wichien Katesing, 1998, pp. 93-94).

\[
\alpha = \frac{k}{1 - k} \left\{ 1 - \frac{\sum V_i}{V_t} \right\}
\]

\(\alpha\) = Cronbach’s alpha value  
\(K\) = Number of questions  
\(V_i\) = The variance of each question  
\(V_t\) = The variance of total score

The test result was found the Cronbach’s alpha value ranging between 0.838 and 0.949 among 5 latent variables as follows:

1) Communication factors scale was estimated at 0.838.
2) Role of personal media in order to be health communication leader in community was estimated at 0.902.
3) Community satisfaction in regards to acquiring health communication information was estimated at 0.949.
4) Participatory communication in community health communication was estimated at 0.920.
5) Health behavior of community was estimated at 0.885.

As a result the items describing the 5 latent variables are suitable since the Cronbach’s alpha values exceeded 0.80.
3.2.9 Data Processing

1) Verified completeness of questionnaire, if any questionnaires were incomplete, they were discarded.

2) Defined and coded data in coding form based on the responses and the number of respondents.

3) Analyzed data with Statistical Package for Social Sciences Window version 22.0 (SPSS) and LISREL program version 8.72 for structural equation modeling analysis.

3.2.10 Data Analysis

1) Descriptive Statistical Analysis

Frequency distribution, percentage, mean, and standard deviation were employed to explain the data collected in the questionnaire as follows:

   (1) Respondents’ demographic characteristics including gender, age, educational level, occupation, and average income per month

   (2) Communication factors

   (3) Role of personal media in order to be health communication leader in community

   (4) Community satisfaction on acquiring health communication information

   (5) Participatory communication in community health communication

   (6) Health behavior of community

2) Inferential Statistical Analysis

The researcher employed structural equation model statistical analysis technique by considering the 13 indicator criteria to examine the fit between the measurement, the structural equation model and empirical data by estimating parameter in model through maximum likelihood and various statistical indicator values. However, the validation of the fit must pass more than 3 criteria of all 13 indicators to claim the congruence between the model and empirical data. (Yuth Kaiwan, 2013, pp. 224-228; Sungworn Ngadkratoke, 2014). The criteria details are shown in Table 3.2:
Table 3.2 Indicator Criteria to Examine the Congruence between the Structural Equation Model and Empirical Data

<table>
<thead>
<tr>
<th>Indicator Name</th>
<th>Indicator Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. $\chi^2$</td>
<td>$&gt; 0.50$</td>
</tr>
<tr>
<td>2. $\chi^2$/df</td>
<td>$&lt; 5.00$</td>
</tr>
<tr>
<td>3. Goodness of Fit (GFI)</td>
<td>$&gt; 0.90$</td>
</tr>
<tr>
<td>4. Adjusted Good of Fitness</td>
<td>$&gt; 0.90$</td>
</tr>
<tr>
<td>5. Comparative Fit Index (CFI)</td>
<td>$&gt; 0.95$</td>
</tr>
<tr>
<td>6. Normed Fit Index (NFI)</td>
<td>$&gt; 0.95$</td>
</tr>
<tr>
<td>7. Non-normed Fit Index (NNFI)</td>
<td>$&gt; 0.95$</td>
</tr>
<tr>
<td>8. Incremental Fit Index (IFI)</td>
<td>$&gt; 0.95$</td>
</tr>
<tr>
<td>9. Relative Fit Index (RFI)</td>
<td>$&gt; 0.95$</td>
</tr>
<tr>
<td>10. Critical N (CN)</td>
<td>$&gt; 200$</td>
</tr>
<tr>
<td>11. Root Mean Square Residual (RMR)</td>
<td>$&lt; 0.05$</td>
</tr>
<tr>
<td>12. Standardized Root Mean Square Residual (SRMR)</td>
<td>$&lt; 0.05$</td>
</tr>
<tr>
<td>13. Root Mean Square Error of Approximation (RMSEA)</td>
<td>$&lt; 0.05$</td>
</tr>
</tbody>
</table>

Source: Adapted from Yuth Kaiwan, 2013, p. 228; Sungworn Ngadkratoke, 2014.

3.2.11 Data Presentation

The researcher presented the data based on the research questions, research objective, and hypothesis together with discussed research results based on conceptual framework, theories, related literatures, including qualitative results that were consistent with the aforementioned reviews as follows:

To develop and validate the fit between the measurement model and the structural equation model of communication factors for health communication of community with empirical data. (Questionnaire is on Appendix A)
3.3 Part III Criteria and Assessment Score “Disease Control Competent Districts” 2014, Area of Responsibility, Office of Disease Prevention and Control, 1st Area, Bangkok

The assessment of Disease Control Competent Districts in the responsible areas by Office of Disease Prevention and Control, Area 1, Bangkok in 2014, random sampling technique was employed to select 10 districts from 3 provinces which were 1) Nonthaburi province; Bang Yai, Bang Bua Thong, 2) Pathum Thani province; Nong Sua and Mueang Pathum Thani, and 3) Phra Nakhon Si Ayutthaya province; Bang Ban, Bang Sai, Bang Sai, Bang Pa-in, Maha Rat and Phra Nakhon Si Ayutthaya.

The results reveal that every district in the responsible areas exceeded the assessment criteria with scores of more than 80. The overall significant issues for the chance of development were specifically on two issues of epidemiology data analysis and report writing for planning/disease reduction project and specification five from ten districts selected by sampling method. According to the policy, the three diseases most selected for treatment were Hand Foot and Mouth disease, Non-communicable diseases, Communicable or infectious diseases that can be prevented by getting vaccines at eight, seven and six districts respectively. The diseases which were problematic in the area included Dengue fever, Tuberculosis, Respiratory tract disease and Diarrheal Diseases at nine, seven, and three districts respectively. The results from the operation show that for Hand Foot and Mouth disease which every district selected for treatment did not pass the indicator criteria which meant the “Hand Foot and Mouth disease for children under 5 years at the district-level did not decrease from the previous year” and the diseases which the districts selected to operate and passed the most were communicable diseases that can be prevented by vaccines and non-communicable diseases, 100 percent and 85.7 percent respectively (Office of Disease Prevention and Control, 1st Area, Bangkok, 2014a)

The assessment criteria for the selection of “Outstanding Disease Control Competent Districts” for the year 2014 consisted of two steps which were 1) Province-level assessment criteria and 2) District-level assessment criteria. The Health Network Development Section of each Office of Disease Prevention and Control was responsible for the assessment and the details are given as follows:
Step 1 Province-level assessment criteria (Total 100 scores)

The main indicators and scores of each are given as follows:

1) The province used the epidemiological data and health hazard concerning five surveillance systems and the operating data for mobilization of Disease Control Competent Districts to evaluate the situation including other related factors to set the goal, plan and work together with other organizations in the province or external organizations to bring about the “Disease Control Competent Districts” (20 scores)

2) The province has supporting mechanism for the districts to pass specification criteria “Disease Control Competent Districts”. (20 scores)

3) The province has progress follow up system and success including the performance conclusion, problems/ obstacles and suggestions to support the development of “Disease Control Competent Districts”. (20 scores)

4) The province has disease surveillance system, investigation and effective Disease and Health Hazard Prevention and Control. (20 scores)

5) The province has districts that pass specification criteria of “Disease Control Competent Districts” at the beginning level on the goal setting. (20 scores)

Step 2 District-level assessment criteria (Total 100 scores)

The main indicators and scores of each main indicator are as follows;

1) The district has committee members of The Strong and Sustainable Disease and Health Hazard Prevention and Control. (10 scores)

2) The district has good epidemiology system in the District-level. (20 scores)

3) The district has plan, follow up and assessment of the Disease and Health Hazard Prevention and Control. (10 scores)

4) The district has resources mobilization or concrete supporting budget from related organizations. (10 scores)

5) The district has the success of two issues of important disease prevention and control concerning the policy of Ministry of Public Health and three issues of disease/health hazard, which are the problems in the area. (50 scores)
The district that will receive the “Outstanding Disease Control Competent Districts, 2014” Award in each Office of Disease Prevention and Control must receive the highest score from “District-level assessment” and receive the highest score from “Province-level assessment”. In the latest assessment from the Office of Disease Prevention and Control, area of responsibility, Development of Affiliated Party and Network Group, the Office of Disease Prevention and Control will assess and select the area which will receive this award. In 2014, the district that received the “Outstanding Disease Control Competent Districts” 1st Area was Phra Nakhon Si Ayutthaya district, Phra Nakhon Si Ayutthaya province with the highest score of 94.5 since the province had clear policy and supporting in developing the effective surveillance system, investigation and effective Disease and Health Hazard Prevention and Control. Moreover, the province also had good management in supporting and pushing forward every sixteen districts to operate and pass the criteria of Disease Control Competent Districts. For the District-level assessment, Phra Nakhon Si Ayutthaya district received the highest score of 90 since the district was distinctive about information system storage; the epidemiological database storage and the presentation of analysis report on non-communicable diseases situation and communicable or infectious diseases. This was done every three months. These distinctive works could be used as examples in doing report and disseminated to other districts. The factors that reinforced the operations included the teamwork between hospitals and strong and united District Health, which were important keys in operating the Disease Control Competent Districts of public health affiliated party. (Office of Disease Prevention and Control, 1st Area, Bangkok, 2014a)

In 2015, the previous province-level assessment criteria were still employed. However, the district-level assessment criteria were adjusted by Bureau of Planning, Department of Disease Control from 5 to 2 main indicators because Bureau of Planning, Department of Disease Control trusted that the committee members, planning and resource mobilization will develop and will be able to pass the self-assessment of each district by the district-level committee members. The details of the two main indicators are as follows:
District-level assessment criteria, 2015

The main indicators and scores of each main indicator are as follows:

1) The district has good Epidemiology system in the District-level. (40 scores)

2) The district has the success of two issues of important disease prevention and control concerning the policy of Ministry of Public Health and three issues of disease/health hazard, which are the problem in the area. (60 scores)

The district received the award “Outstanding Disease Control Competent District” in the district-level Office of Disease Prevention and Control, 1st Area, Bangkok, 2015 was Bangyai district, Nonthaburi with 96 scores from Province-level assessment and 96 scores from District-level assessment (details of criteria and assessment scores of Bangyai District showed in the table 3.7)

Details of criteria and assessment scores of “Province-level assessment criteria” and “District-level assessment criteria” obtained the highest scores of each province, 2014 showed in the table 3.3-3.7 as follows:
<table>
<thead>
<tr>
<th>Component</th>
<th>Details of Main Indicators</th>
<th>Total Score</th>
<th>Scores Obtained</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>The province used the epidemiological data and health hazard concerning five surveillance systems and the operating data for mobilization of Disease Control Competent Districts to evaluate the situation including other related factors to set the goal, plan and work together with other organizations in the province or external organizations to bring about the “Disease Control Competent Districts”.</td>
<td>20</td>
<td>17.5</td>
</tr>
<tr>
<td>2.</td>
<td>The province has supporting mechanism for the districts to pass specification criteria “Disease Control Competent District”.</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>3.</td>
<td>The province has progress follow up system and success including the performance conclusion, problems/obstacles and suggestions to support the development of “Disease Control Competent Districts”.</td>
<td>20</td>
<td>20</td>
</tr>
</tbody>
</table>
Table 3.3 (Continued)

<table>
<thead>
<tr>
<th>Component</th>
<th>Details of Main Indicators</th>
<th>Total Score</th>
<th>Scores Obtained</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.</td>
<td>The province has disease surveillance system, investigation and effective Disease and Health hazard Prevention and Control.</td>
<td>20</td>
<td>Nonthaburi 18</td>
</tr>
<tr>
<td>5.</td>
<td>The province has districts that pass specification criteria of “Disease Control Competent Districts” at the beginning level on the goal setting. Remark: In overview, the province must have districts that pass specification criteria of “Disease Control Competent Districts” at least 80 percent of all districts in the province.</td>
<td>20</td>
<td>(Total of 6 districts, 14 districts passed the criteria equals 100 %)</td>
</tr>
</tbody>
</table>

| Total Score Obtained | 100 | 89.5 | 92 | 94.5 |

**Table 3.4** Conclusion form of Districts with the Highest Score Based on District Assessment in Phra Nakhon Si Ayutthaya Province of “Disease Control Competent District” in 2014 by Office of Disease Prevention and Control, 1st Area, Bangkok: Phra Nakhon Si Ayutthaya District, Phra Nakhon Si Ayutthaya Province

<table>
<thead>
<tr>
<th>Details of Main Indicators</th>
<th>Full score</th>
<th>Scores Obtained</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The district has committee members for Disease and Health hazard Prevention and Control.</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>2. The district has good epidemiology system in the District-level.</td>
<td>20</td>
<td>16</td>
</tr>
<tr>
<td>3. The district has plan, follow up and assessment of Disease and Health hazard Prevention and Control.</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>4. The district has resources mobilization or concrete supporting budget from related organizations.</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>5. The district has the success of two issues of important disease prevention and control concerning the policy of Ministry of Public Health and three issues of disease/health hazard which are the problem in the area.</td>
<td>50</td>
<td>44</td>
</tr>
</tbody>
</table>

**Total** 100 90

**Source:** Office of Disease Prevention and Control, 1st Area, Bangkok, 2014a.
Table 3.5  Conclusion form of Districts with the Highest Score Based on District Assessment in Nonthaburi Province of “Disease Control Competent Districts” 2014 by Office of Disease Prevention and Control, 1st Area, Bangkok: Bangyai District, Nonthaburi Province

<table>
<thead>
<tr>
<th>Details of Main Indicators</th>
<th>Full Score</th>
<th>Scores Obtained</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The district has committee members for Disease and Health hazard Prevention and Control.</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>2. The district has good epidemiology system in the District-level.</td>
<td>20</td>
<td>17</td>
</tr>
<tr>
<td>3. The district has plan, follow up and assessment of Disease and Health hazard Prevention and Control.</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>4. The district has resources mobilization or concrete supporting budget from related organizations.</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>5. The district has the success of two issues of important disease prevention and control concerning the policy of Ministry of Public Health and three issues of disease/health hazard which are the problem in the area.</td>
<td>50</td>
<td>50</td>
</tr>
</tbody>
</table>

**Total** 100 97

**Source:** Office of Disease Prevention and Control, 1st Area, Bangkok, 2014a.
Table 3.6 Conclusion form of Districts with the Highest Score Based on District Assessment in Pathum Thani Province of “Disease Control Competent Districts” 2014 by Office of Disease Prevention and Control, 1st Area, Bangkok: Nong Sua District, Pathum Thani Province

<table>
<thead>
<tr>
<th>Details of Main Indicators</th>
<th>Full Score</th>
<th>Scores Obtained</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The district has committee members for Disease and Health hazard Prevention and Control.</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>2. The district has good epidemiology system in the District-level</td>
<td>20</td>
<td>17</td>
</tr>
<tr>
<td>3. The district has plan, follow up and assessment of Disease and Health hazard Prevention and Control.</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>4. The district has resources mobilization or concrete supporting budget from related organizations.</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>5. The district has the success of two issues of important disease prevention and control concerning the policy of Ministry of Public Health and three issues of disease/health hazard which are the problem in the area.</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
<td><strong>97</strong></td>
</tr>
</tbody>
</table>

**Source:** Office of Disease Prevention and Control, 1st Area, Bangkok, 2014a.
Table 3.7 Conclusion form of Districts with the Highest Score Based on District Assessment in Nonthaburi Province of “Disease Control Competent Districts” 2015 by Office of Disease Prevention and Control, 1st Area, Bangkok: Bangyai District, Nonthaburi Province

<table>
<thead>
<tr>
<th>Details of Main Indicators</th>
<th>Full Score</th>
<th>Scores Obtained</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The district has good epidemiology system in the District-level.</td>
<td>40</td>
<td>37</td>
</tr>
<tr>
<td>2. The district has the success of two issues of important disease prevention and control concerning the policy of Ministry of Public Health and three issues of disease/health hazard which are the problem in the area.</td>
<td>60</td>
<td>59</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>96</td>
</tr>
</tbody>
</table>

CHAPTER 4

QUALITATIVE RESULTS

The study titled, “The Development of a Structural Equation Model of Communication Factors for Health communication of Communities” had employed the mixed-methods methodology with three integral objectives. The first objective is to study the means of communication based on the three paradigms of health in successful communities. The second objective is to analyze the communication factors that lead to the success stories of communities in health communication. The final objective is to develop and validate the congruence between the measurement model and the structural equation model of communication factors for health communication of community with empirical data. The research methodology was implemented in two phases. The first phase employed a qualitative approach in which in-depth and semi-structured interviews have been conducted. The later phase was conducted using a quantitative methodology implementing a survey method using close-ended questionnaire, which was developed from qualitative methods research and literature review. The questionnaire features empirical questions, which correlated to the real context derived from the area of study. This chapter presents the two major aspects of the results -Part I: Context of the Research Settings and Part II: The Analysis of Qualitative Results. The information answers research questions one and two, which are discussed in detail in the following section:

4.1 Part I: Research Setting Context

4.1.1 Bang Yai District, Nonthaburi Province

4.1.1.1 The Context of Bang Yai District, Nonthaburi Province

According to the Department of Provincial Administration under the Ministry of Interior supervision, Bang Yai District in Nonthaburi Province consists of 6 sub-districts as follows: 1) Bang Muang, 2) Bang Mea Nang, 3) Banglen, 4) Sao
Thong Hin, 5) Bang Yai, and 6) Ban Mai with the total population of 111,464 (Ministry of Interior, Department of Provincial Administration, 2014). Most of its terrain is wetland with two significant canals running through. The villages are connected by canals. About twenty years ago Bang Yai district was considered a rural area with most of the population depending on agriculture. Hence, health problems during the period were concerned with agriculture such as the outbreak of aphids. However, the rapid access to public utilities and public transportation along with the expansion of investment from Bangkok to suburban areas in the last 10 years has resulted in the rapid growth of Bang Yai District. This included the broadening of transportation routes, accommodations, and department stores, especially the fast population growth. As a result, there were broader gaps in the economic status of the residents. The population included both the locals and immigrants from Bangkok, thus public health management became more challenging. The situation got even more complicated since there were more than 100,000 passive population moving in to study and work such as the Burmese and Vietnamese people. These people were required to be monitored closely with regard to elephantiasis and diphtheria.

Moreover, the top ten surveillance diseases according to epistemology in 2014 (limited to contagious diseases) in Bang Yai District were: 1) diarrhea, 2) foodborne illness, 3) conjunctivitis, 4) chicken pox, 5) influenza, 6) hand, foot, and mouth disease, 7) flu, 8) pneumonia, 9) sexually transmitted disease, and 10) dengue. Doctors, professional nurses, public health officers, dental health officers, therapists, Thai medical doctors, and patient assistants became involved in governmental healthcare provision. While, for private sector there were private hospitals, medical clinics, special clinics, Thai medical clinics, therapy clinics, dental clinics, medical center and midwifery services, drugstores, traditional medicine stores. In addition there are clubs to support healthcare, which include: 1) Bang Yai Public Health Volunteer Club, 2) Sub-district Public Health Volunteer Club, 3) Elderly Club, and (4) To Be Number One Club (Bang Yai District Public Health Office, 2013, pp. 1-11; Bang Yai District public health officer (personal communication, September 15, 2015).
4.1.1.2 Awards

4.1.1.3 Examples of successful cases in severe disease control according to the assessment criteria in 2014 of District Health System Policy, Ministry of Public Health

1) AIDS
Local administration offices contribute resources to the administration of HIV and sexual transmitted diseases. The rate of sexual transmitted diseases has not exceeded the average rate in the last 5 years.

2) Alcohol Drink Control
The monitoring of alcohol beverage control to prevent violation of law. The administration of alcohol beverage control in the designated areas (Department of Disease Control, Bureau of Planning, 2014, pp. 19-20)

4.1.2 Phra Nakhon Si Ayutthaya District, Phra Nakhon Si Ayutthaya Province

4.1.2.1 The Context of Phra Nakhon Si Ayutthaya District, Phra Nakhon Si Ayutthaya Province
According to Department of Provincial Administration under the Ministry of Interior supervision, the population of Phra Nakhon Si Ayutthaya District is 158,584 with two municipality offices, which are Phra Nakhon Si Ayutthaya Municipality and Ayothaya Municipality. The district is divided into 21 sub-districts as follows: 1) Phratoo Chai, 2) Kramung, 3) Hor Rattanachai, 4) Hauror, 5) Tah Wasugri, 6) Phai Ling, 7) Pak Kran, 8) Phu Khao Thong, 9) Sum Pao Lom, 10) Suan Prik, 11) Khlong Takaen, 12) Wat Toom, 13) Huntra, 14) Lum Plee, 15) Baan Mai, 16) Baan Koh, 17) Khlong Suan Plu, 18) Khlong Srabua, 19) Koh Rean, 20) Baan Pom, and 21) Baan Roon (Ministry of Interior, Department of Provincial Administration, 2014). Mostly the weather is hot and humid. The residents are employed in agriculture, freelance, or work in factories. These people have multicultural backgrounds following different religions. However, they live together
peacefully. For instance, most of the Chinese people live in Huaror, Hor Rattanachai, and Pratoo Chai Sub-district. These sub-districts are coined “Pratoo Chine Community.” While Muslim people live in Lum Plee, Klong Takaen, Sumpao Lom, Pak Kran, and Baan Pom Sub-districts. The Roman Catholics settle in Sumpao Lom near Saint Joseph Catholic Church.

In regards to the public health, there is one hospital center, seven medical care centers and 18 health promotion hospitals. Moreover, in terms of the top ten surveillance diseases according to epistemology in 2014 (limited to contagious diseases) in Phra Nakhon Si Ayutthaya District include 1) diarrhea, 2) pneumonia, 3) foodborne illness, 4) conjunctivitis, 5) flu, 6) chicken pox, 7), dengue 8) influenza, 9) sexually transmitted disease, and 10) tuberculosis. Moreover, in the district there is a large population of both Thai construction laborers as well as legal and illegal foreign laborers. This results in the spread of contagious diseases in the area throughout the year. These diseases include hand, foot, and mouth disease, diphtheria, conjunctivitis, and tuberculosis. As a result, the communicable disease control teams in hospitals, district public health centers, medical centers, as well as sub-district health promotion hospitals are required to discuss the problems in order to holistically work together. The aims are not only to solve health problems, but also to monitor the situation prior to the spread of a certain watch list diseases. Also these organizations have to investigate and stop the spread as soon as possible. In the past health promotion tasks were exclusively conducted by public health organizations. However, at present there is integration with other networks along with collaboration from local administration organizations, public leaders, as well as private establishments. This is considered to be a good start of long-term successful health communication in the community (Office of Disease Prevention and Control, 1st area, Bangkok, 2014a; Phra Nakhon Si Ayutthaya (District Public Health Officer, personal communication, October 20, 2015).

4.1.2.2 Awards

The Best Active District for Long-term Disease Protection in Office of Disease Prevention and Control, 1st area, Bangkok in 2014a
4.1.2.3 Examples of Successful Cases in Severe Disease Control

According to the Assessment Criteria in 2014 of District Health System Policy, Ministry of Public Health

1) Hand, Foot and Mouth Disease

The prevention and control of hand, foot, and mouth disease in nurseries and kindergarten schools are in line with the identified criteria. The number of children under five years old with the disease are lower than the previous year.

2) Dengue

The follow up, monitoring, and administration of sub-districts are in line with DSH for dengue fever. The number of patients with dengue is 4% lower than the median of the last 5 years (A.D. 2008-2012) (Department of Disease Control, Bureau of Planning, 2014, pp. 19-20).

4.1.2.4 Key Success Factors

The criteria for the selection of “Active District in Long-term Disease Protection” proposed by the Office of Disease Prevention and Control, 1st area, Bangkok offers privilege to the province with highest scores to select the best “Active District in Disease Protection,” which will be awarded by Department of Disease Control. Thus Phra Nakhon Si Ayutthaya Province has selected Phra Nakhon Si Ayutthaya District to be the winner with 90 scores from Office of Disease Prevention and Control, area, Bangkok. Pra Nakhon Sri Ayuthaya Province has explicitly set policies to support the development of the disease monitoring system. This includes the examination and protection of diseases and health threats to become more effective, which becomes the baseline for disease monitor and control. Besides, the province had a helpful administration, which provided encouragement until 16 of the districts passed the assessment criteria of DSH. Moreover, each district has outstanding data management. Simply put, a database of epidemiology must be created followed by the report of both contagious and non-communicable disease situation every quarter of the year. The data can be included in a report and publicized in other areas. In line to the aforementioned information, the supportive factors supporting Phra Nakhon Si Ayutthaya to be a successful case includes a strong network among regional hospitals, sub-district health support hospitals, and district public health offices. In other words, integration among organizations is the key
element for the administration of DSH in terms of its public health partnership (Office of Disease Prevention and Control, 1st area, Bangkok officer, personal communication, August 24, 2015).

4.1.3 Nong Sua District, Pathum Thani Province

4.1.3.1 The Context of Nong Sua District, Pathum Thani Province

According to Department of Provincial Administration under the Ministry of Interior supervision, the population of Nong Sua District is 48,774 with 7 sub-districts as follows: 1) Bueng Ba, 2) Nueng Bon, 3) Bueng Kasam, 4) Bueng Cha- or, 5) Hnong Samwand, 6) Salakorn, and 7) Noppharat Sub-districts (Ministry of Interior, Department of Provincial Administration, 2014). Despite being located in the suburb area, economic growth of Nong Sua District is economically significant. In addition the district also has rapid structural changes. However, most of the population still sticks to agriculture such as the cultivation of seedless guavas, dragon fruits, and bananas. This includes annual crops such as long beans, corns, gourds, cucumbers, organic star gooseberry, rice, and fish farming. This is the result of the wetland geography with many significant canals running through all of the villages. Also some of the residents are engaged in commerce, product and service exchange to serve the people’s need.

The top ten surveillance diseases according to epistemology in 2014 (limited to contagious diseases) in Nong Sua District include the following: 1) diarrhea, 2) foodborne disease, 3) pneumonia, 4) conjunctivitis, 5) flu, 6) influenza, 7) chicken pox, 8) pneumonia, 9) dengue, and 10) dysentery.

4.1.3.2 Awards

The Best Active District for Long-term Disease Protection in Pathum Thani Province in 2014

4.1.3.3 National Outstanding Performances

One local administrative officer, the Chief Executive of the Sub-district District Administrative Organization (SAO), who studied public health, is eager to promote community health communication. The officer has observed that there are too many road accidents in the community. He has analyzed the situation to discover the cause. It is found that most people did not wear safety helmets. In addition there
were insufficient traffic signs and in some cases there was inadequate light along the roads. As a result the SAO cooperates with public health volunteers as well as community leaders in setting a checkpoint for 7 days during the New Year and Songkran festivals. A number of activities were developed. For instance, helmets were sold at a reasonable price, warning signs were added, and bridges were repainted. In areas under construction flashing lights, traffic lights, traffic signs as well as warning signs were installed. At the beginning the collaboration was limited to the sub-district administrative organizations and public health volunteers. As a growing number of organizations became aware of the success of the project, other organizations joined in. This results in “The Prevention and Solutions of Road Accidents” or Bueng Ba Model where a number of organizations visit the place to inspect the management without any efforts from the locals to propagandize themselves. Collaboration from partners unconnected to health networks was also obtained. Those partners included Provincial Public Relation, Provincial Transport Department, policemen, soldiers, Department of Disaster Prevention and Mitigation, transport companies, and Department of Highway. In addition, the model was also publicized in “Bainee Mee Kam Top,” a TV program on Modern Nine TV. In the program Bueng Ba Model was praised by Mr. Phrommin Khanthiya, the Director of Accident Reduction Networks as a pioneer community in road accident reduction due to its active integrated management, as well as the prompt action. Then the district was awarded the outstanding area of road accident reduction in Pathum Thani Province. This encouraged the move for employing the strategy to connect all organizations to holistically work, fix risky or dangerous spots, equip more lighting equipment at intersections together with warning signs, and repaint the bridges and risky spots. Besides, people, who have consumed alcohol, are prohibited to drive, especially in 2015 New Year Festival. Moreover, people’s safety practices such as reduction in drunk driving and helmet wearing while riding on motorcycles were promoted. All of these can reduce accidents on secondary roads and in communities (Bainee Mee Kam Top, 2014; Bueng Ba Sub-district administrative officer, personal communication, November 24, 2015).
4.1.3.4 Examples of success in significant disease control according to DSH Policy of Ministry of in 2014

1) Road Accident Prevention

Road accident prevention monitoring tasks are performed and integration of road accident prevention among networks in the community. The total number of injured people in road accidents in the district decreased after the administration of the project.

2) AIDS

Local administration offices contribute resources to the administration of HIV and sexual transmitted diseases prevention.

The rate of sexual transmitted diseases does not exceed the average rate in the last 5 years (Department of Disease Control, Bureau of Planning, 2014, pp 19-20)

4.2 Part II: The Analysis of Qualitative Results

A qualitative approach is employed to seek for the answers to the following research objectives: 1) to study the means of communication based on the three paradigms of health in successful communities and 2) to analyze the communication factors that lead to the success stories of communities in health communication. An interview was conducted and transcribed according to both of the research objectives. Descriptive analysis was performed and the results would be presented along with solid quotations based on theories, concepts and previous studies. Besides, both the emic perspectives and the etic perspectives were used in describing the phenomena. The results are summarized as follows:

4.2.1 Objective No.1: To Study the Means of Communication Based on the Three Paradigms of Health in Successful Communities

It was found that health behaviors of people in 1) Bang Yai District, Nonthaburi Province, 2) Phra Nakhon Si Ayutthaya District, Phra Nakhon Si Ayutthaya Province, and 3) Nong Sua District, Pathum Thani Province are related to the three health paradigms, which are: (1) Health Education Paradigm, (2) Health
Promotion Paradigm, and (3) Health Communication Paradigm. As mentioned earlier these communities obtained the highest scores in their provinces according to the assessment by DHS from the Office of Disease Prevention and Control, 1st area, Bangkok. In this study the three paradigms are substituted by “Health Communication” as the term provide a clear description of the paradigms. Despite the transformation to the 3rd health paradigm, all of the three paradigms are still interwoven. The previous two paradigms have been integrated in the community. To put state it simply, a particular health paradigm is selected for use depending on the particular situation.

4.2.1.1 Health Education Paradigm

A number of internal and external public health officers revealed that some group of people such as the rich are depending on assistance from them in times of illness. They proposed that people tend to rely on hospital services. Even in cases of slight illnesses these people tend to come for assistance instead of dealing with the condition on their own. For instance, people with low education or the elderly are likely to believe that healthcare is the responsibility of public health officers. Besides, it is not easy for them to change things like eating habits or doing exercise. These people tend to perform healthcare activities provided that there are health risks or only when they are already ill instead of promoting their health by keeping fit. Therefore, they should have received more healthcare knowledge from the exposure to the media with plenty of healthcare contents. However, they still lack the awareness of appropriate health behavior. Despite of the fact that the officers concluded that people seem to have higher health awareness. This is especially true in the public health volunteers (PHV) group, who perform self-care effectively. One of the officers expressed that:

Nowadays it is a lot better. Previously people seemed inactive, but they are better now. It is the achievement of how we encourage them to help themselves by providing them funding. People seem to have a higher awareness in taking care of themselves. (Office of Disease Prevention and Control, 1st area, Bangkok Officer, personal communication, August 24, 2015)

I think everybody loves themselves are keen to take care of their health. Previously, there were no exercising clubs in the community, but now
there are many. People come out to do aerobics or stick dancing and get hot compress massage. There are lots of positive changes. (Nonthaburi Provincial Public Health Officer, personal communication, September 29, 2015)

Our public health volunteers are good models in performing healthcare. They play key roles in showing the public how to take care of themselves, from kids to the elderly. We can substitute for public health officers. (Nong Sua Public Health Volunteer, personal communication, November 25, 2015)

Sometimes elite ladies living in housing estates come to us with slight illness. Most of the time they are fine and we just gave them some vitamin pills. Another is local people who are native to the community. These people have low education. They adopt traditional practices and are unwilling to change. (Sao Thong Hin Sub-district Hospital Officer, personal communication, September 15, 2015)

Problems are also significant for the elderly since they get used to their habits. They eat what they have eaten. People rarely did exercise those days. When we encourage them to change, they do not want to. For teenagers, in spite of opportunities to expose themselves to healthcare information through the internet, they live their lives harshly believing that they are still young and healthy. (Bang Yai District Public Health Officer, personal communication, September 15, 2015)

In addition, external public health officers believe that the appropriate health behavior of people in a community and how it becomes stronger resulted from the management of central public health officers. These include the Department of Disease Control and Office of Disease Prevention and Control, 1st area, Bangkok. These organizations encourage, pass on knowledge, and help in the transfer of policy. They also share project administering methods from the Ministry of Public Health to communities such as Clean Food Project, diabetes and high blood pressure checkup, monitoring and controlling of communicable and non-communicable diseases, and exercise projects. At the beginning most of the activities relied greatly on the Ministry of Public Health with less attention on the real contexts of the community, social contexts, as well as cultural contexts in the areas.
Consequently, some public health officers have put their efforts in seeking how to perform health communication that can result in people’s good health. In doing such tasks media are employed in various campaigns or persuasive communication that lead to prevention and control of diseases. At the meantime, endeavors from the central organizations are also provided including those from Bureau of Risk Communication and Health Behavior Development, Department of Disease Control, and Office of Disease Prevention and Control, 1st area, Bangkok. The campaigns are likely to be administered by distribution of specialized media such as brochures, leaflets, or posters to provincial public health officers.

Television seems to have the most influence on people’s perception. This media has more impact in transferring knowledge than other media. Moreover, television effectively boosts satisfaction and results in the changes to positive attitudes and better behavior. This is especially true for situations such as the spread of severe diseases globally and domestically such as Mers or Ebola Virus. Besides, television is appropriate for the campaign for vaccination or the outbreak of certain diseases such as diphtheria. It is known for a fact that television can reach every household resulting high exposure rates. Some of the public health officers reasoned that:

Mass media like television is of major importance. They can present holistic aspects of each situation to a vast number of people at the same time. (Nonthaburi Provincial Public Health Officer, personal communication, September 29, 2015)

Regarding dengue fever, it is not necessary for us to exclusively pay attention to it since television covered it. People have learnt from Khun Por’s case (a famous actor, who died from dengue). Now people are afraid of Aedes Mosquitoes and request for our help. Some households have never allowed us to apply Temefos in their houses, but now most of them request for it. (Nong Sua Public Health Volunteer, personal communication, November 25, 2015)

With regard to Mers and Ebola we need to admit that the Ministry of Public Health performed effectively in passing on knowledge on TV. People have information about the diseases and are aware of their severity. The
Ministry evaluated the situation very well. (Bang Yai District Public Health Officer, personal communication, September 15, 2015)

People prefer to get more information from TV. One example is the campaign for vaccination of diphtheria and tetanus to honor Her Royal Highness Princess Maha Chakri Sirindhorn administered by Ministry of Public Health. People really need more information about what the vaccine is, and when to have it. It should have been broadcasted once or twice. In fact a severe case of patients dying from the diseases should be presented for higher awareness, understanding, and confidence in taking the vaccine. (Phra Nakhon Si Ayutthaya District Public Health Officer, personal communication, October 22, 2015)

In line with the notions above, local administrative officers as well as a number of public health officers contend that every individual in every sector is required to follow instructions/suggestions of public health officers who work inside and outside the community. For instance, in case of a spread of diseases such as re-emerging infectious diseases or emerging infectious diseases, such as meningococcal meningitis, or serious illnesses such as dengue or diarrhea. In these incidences one-way communication, especially the top-down one must be performed to cease the spread of the diseases promptly. Some officers explained that:

When there is an urgent agenda we get to the community to give more knowledge. Other relating organizations usually do this as well. Besides, in increasingly severe cases an official notice is launched by our provincial governors to invite relating organizations to meet at the same time. (Bang Yai district public health officer, personal communication, September 15, 2015)

Especially for urgent policy or severe disease we can transfer policies regarding what to do. The public health officers and community heads that are in charge can hold meetings. (Phra Nakhon Si Ayutthaya provincial public health officer, personal communication, October 22, 2015)

For example, in the case of a patient dying from meningococcal meningitis in Lumpli a team of SRRT came and investigated the causes and
how to control the spread. We provided knowledge and encouragement for the family. Also we sought for people, who had close contact to the patient and checked their blood. The team included provincial officers, those from hospitals, along with public health volunteers. The patient was a student at Ayuthaya Rajabhat University. We prescribed anti-biotic for the whole class. Also the patient’s nephew, who lived in Maharaj District, had contacted with her. We sought for him and gave him the medicine. Communication with the patient’s family needed careful consideration, since they were still sad. Anyway we needed to make sure that the control of the disease was well performed. Fortunately, for this case the surrounding people had good understanding. They separated the clothes, hung them in sunlight, and took anti-biotic pills. (Phra Nakhon Si Ayutthaya district public health officer, personal communication, October 15, 2015)

For example, last month there were three patients with dengue in a family. We informed the medical center about the case, where they were and in which community. Then we coordinated with hospital. We worked together as a team. (Phra Nakhon Si Ayutthaya hospital officer, personal communication, October 22, 2015)

4.2.1.2 Health Promotion Paradigm

Both the internal and external public health officers in the districts including those in district public health centers, hospitals, sub-district health promotion hospitals, municipalities, and local administration organizations regularly participate in training courses organized by external organizations such as Office of Disease Prevention and Control, 1st area, Bangkok, provincial public health centers, and large hospitals. These practices are crucial when there are occurrences of spreading diseases, re-emerging infectious diseases or emerging infectious diseases such as dengue, Mers, or Ebola, as well as when new vaccines are invented. These people require new knowledge regarding the aspects and realize the significance of getting knowledge from the external organizations. This enables them to transfer knowledge to public health volunteers, who can finally make it understandable for community people.
Moreover, most of the public health volunteers and headmen are trained by public health officers in the communities such as district public health centers, municipalities, hospitals, and sub-district public health hospitals. Also training is done by external organizations as well as having field trips. This practice is usually previously implemented in hospitals in other districts or provinces. All the volunteers and headmen are aware of the importance of the practices. They realize that they can learn new things from them, and can adapt the knowledge to develop their practices in the communities, or eventually transfer the knowledge to the public. Some of them mentioned that:

Most of the time when there is new information, sub-district health promotion hospitals, municipalities, or provincial hospitals usually call for a meeting. For example, the case of Mers or dengue, they provide more information or brush up existing knowledge. Then we can promptly inform the community that we take care of. (Bang Yai Public Health Volunteer, personal communication, September 15, 2015)

I have participated in a training course by Nan Hospital. The focus was on food consumption. Similarly food is also the focus at Chulalongkorn Hospital. I learnt that if we eat good food we would be protected from diabetes and high blood pressure. They taught us about sugar in soda, each day we should only consume 6 spoons of sugar. Then I tell other about this. This is effective in other areas, so we adapt it slightly to suit to our community, (Phra Nakhon Si Ayutthaya Public Health Volunteer, personal communication, October 27, 2015)

In the meantime, media from the central public health organizations such as those from Department of Disease Control or Office of Disease Prevention and Control, 1st area, Bangkok regarding clean food, checkup of diabetes and high blood pressure, protection and control of dengue, Thai with Flat Belly Policy, or promotion of exercise, are provided. These communications are usually in the form of brochures, leaflets, posters, projects, and activities. Public health volunteers are responsible for the effective deployment of these media that correlates to social and
cultural contexts in the community as well as the disease incidents. Monthly meetings are held and people are persuaded to participate in healthcare. In addition the headmen can propose their ideas about contents in the communications media.

Moreover, “objects in the community” are employed as “community media” in health communication. The media feature contents that are correlated to disease incidents, health threats, and social and cultural contexts in the community. These aspects include public address, transmitting towers, village cafes, Lamtud, Khlong Yao, ancient weaving, brochures, posters, three dimensional media, T-shirts, stickers, bicycles, and calendars. Besides, people in the community can be used as personal media for health communication. For instance the district public health officers, officers in sub-district health promotion hospitals, local headmen, officers in local administrative organizations, community heads, public health volunteers, family members with experiences of taking care of patients until they recover, as well as kid public health volunteers can be effective communicators. Some officers propose that:

In some areas of Nong Sua District the local administrative chiefs are featured in posters for a helmet wearing campaign. In many other areas headmen and local administrative officers are starred in posters or become personal media. For example, when the Department of Health Control a health runs a wording campaign namely, 5 Por (a wording campaign for dengue prevention) and 3Or 2 Sor (a wording campaign for chronic disease prevention), each community asks their heads to take part in the communications media. While the case of dengue requires many activities such as water change, or environmental improvement, people obtained and readjust the contents so that they are suitable for their communities. This is also practiced for liquor and cigarette campaign. Personal media has already been currently employed in many communities. (Office of Disease Prevention and Control, 1st area, Bangkok Officer, personal communication, August 24, 2015)

In Phra Nakhon Si Ayutthaya District, we are specialized in Lamtud, a cultural heritage performance. Then we creatively held a Lamtud Fundee (Healthy Teeth Lamtud) in which healthcare contents for healthy teeth are included. Besides, the elderly also like it. It’s our officers’ ideas. They sing
and perform themselves and the contents are based exclusively on dental healthcare. (Phra Nakhon Si Ayutthaya Hospital Officer, personal communication, October 22, 2015)

Regarding disease protection, the public health officers exclusively focus on “protection” rather than “healing.” For example, in an incident of communicable diseases in any areas many protective activities are conducted such as vaccination for diphtheria, tuberculosis, and influenza is performed, or mask wearing campaign to protect respiratory diseases are conducted. Most of the protection communications are carried out by the community leaders, public health volunteers, who are interested in and are aware of those health threats. They seem to have strong faith in district public health officers, health promotion hospital officers or hospital officers for their accurate and practical information. Consequently, they are responsible for passing on the knowledge to raise awareness of people on drawbacks of not being vaccinated. In doing such tasks they must act as a good role model. However, some local administrators still do not pay sufficient attention about vaccination. Partially, they blame it on their tight schedules regardless of a campaign. This has been mentioned by some officers that:

People have more awareness about measles and diphtheria. They regularly get vaccinated. The rate is about 90%. Especially those with higher education, they usually keep the vaccination appointment. If they would like to postpone the appointment, they take their booklets and ask for rescheduling. Foreign people have high self-responsibilities, are on time and corporative. Child vaccination is very easy to perform and we provide 100% services. (Bang Yai District Public Health Officer, personal communication, September 15, 2015)

For emergency cases such as during the campaign for diphtheria, public health officers, hospital officers, and sub-district public health center officers notify us to participate in a training program. They focus on giving knowledge about how the severity of the disease. Some can be contracted even from sharing tableware. Since we are pleased to help the officers together with their accurate knowledge and expertise, they usually provide us lots of training
courses. However, they couldn’t approach the public, thus they teach us and we pass on the knowledge to the public. One case is about the new vaccine against diphtheria and tetanus taken in only one shot. (Bang Yai District Public Health Office, personal communication, September 15, 2015)

Lots of people visit us to follow up what they have missed. Some of them who had moved in come to us with their child’s health booklets to check what their children have missed. But for people in our own area we cover 100%. Now there is news on diphtheria, some people even call us for more information. (Nonthaburi Provincial Public Health Officer, personal communication, September 29, 2015)

I think parents are aware of vaccination. They are very responsible for it since they are concerned about their children.” (Bueng Ba Sub-district Administrative Officer)

We have been vaccinated then we can inform the public. We need to be a role model. For example, we tell them that there is a campaign for diphtheria and whooping cough vaccination. Most of the children get all the vaccines, but some adults miss them. They usually have working burdens. Some have tight work schedules and don’t have enough time for vaccination. (Bang Yai District Public Health Officer, personal communication, September 15, 2015)

Adult vaccination campaigns are not completely successful. One such case is Ayuthaya District where only 50-60% of people got vaccinated while the aim is 80-90%. It is difficult for them because they work in a factory and have different work shifts. They are not allowed to come even they are our target group. (Phra Nakhon Si Ayutthaya District Public Health Officer, personal communication, October 22, 2015)

When we give knowledge through broadcasting towers about measles, diphtheria, and tetanus people are very active to come out. Even the elderly who are age over 69 also come to us, even when they are not eligible to get the shots. They are very keen to perform disease protection by getting vaccines from Division of Public Health, community chiefs, or public health volunteers. Besides, we have a list of the vulnerable group from hospitals. Similarly, other
organizations such as municipalities are facing a similar situation to us. That is to say some of their people are eager for it, while some are not. (Phra Nakhon Si Ayutthaya Municipal Officer, personal communication, October 27, 2015)

Moreover, for a situation in which behavioral risks are assessments performed, people are aware of having checkup for cervical cancer, breast cancer, diabetes, and high blood pressure. These tests could be conducted by screening or personal discussions. Every sector is aware of the significance of the practices on their health and their benefits of reducing the potential of future illness.

When we screen for diabetes or high blood pressure, we get their blood and inform them the numerical results. The numbers can help raise their awareness. We start by talking to them and avoid identifying their threatening behavior. We show them a case study and make an appointment. Next time if they still have some problems we forward the case to other hospitals to get the appropriate cure. (Phra Nakhon Si Ayutthaya District Public Health Officer, personal communication, October 29, 2015)

We are usually requested to help take care of diabetes, high blood pressure, and cervical cancer checkup. This can encourage them to change their health threatening behavior. (Bang Yai Public Health Volunteer, personal communication, September 15, 2015)

Hospitals must provide ambulances for health checkup, for example, cervical cancer checkup. A team should be sent to festivals or fairs. There are people always waiting for us. But we also need doctors from 6 to 8 pm. They need to be right there not somewhere else. We cover 80% of the people. When we meet up with community people we inform doctors about the dates and time so that they can go with us. Therefore, we perform two tasks at the same time. (Nong Sua Public Health Volunteer, personal communication, November 25, 2015)
4.2.1.3 Health Communication Paradigm

Health behavior according to Health Communication Paradigm is the one implemented in normal situations. It involves the situation in which people seek for and expose themselves to health promotion information focusing on “promotion” when they are healthy rather than searching for “cure” after getting sick. This helps to prepare for health crises in the near future. As explained by an officer that:

In a normal situation we try to get ready, to stay healthy, and to be away from illnesses so that when there are health crisis situations we are well-prepared. That is to say we are careful enough. (Phra Nakhon Si Ayutthaya Provincial Public Health Officer, personal communication, October 22, 2015)

The exposure to healthcare information of public health officers in public health organizations and local administrative organizations are made through various channels such as:

1) Mass media such as newspapers
2) Specialized media such as books/ textbooks, governmental booklets or proceedings
3) New media such as e-mail, websites, search engines i.e. Google.com, Line, You Tube, and Facebook
4) Personnel media such as doctors, nurses in large hospitals, officers in Office of Disease Prevention and Control ,1st area, Bangkok, provincial public health officers, and district public health officers, as well as other organizations in some areas such as police officers, highway officers, officers in Department of Disaster Prevention and Mitigation, transportation companies, Sukjai Foundation, and NGOs

These sectors include headmen, public health volunteers together with members of the public tend to expose themselves to information featured through mass media. This is especially true for television and new media such as websites, search engines, i.e. Google. com, as well as applications, i.e. Line, Facebook, and You Tube. Moreover, the information featured in the media they get involved with including:
1) Community media such as public address, broadcasting towers, village cafes, public health meetings in sub-districts or villages;

2) Traditional media such as Lamtatad, Klong Yaow, or weaving of ancient practices;

3) Activity media regarding disease protection and health promotion, community visit, or visit of bedridden patients;

4) Personal media such as doctors, nurses, provincial public health officers, district public health officers, sub-district public health officers, municipality personnel, local administration officers, community heads, public health volunteers, local wisdom, and children public health volunteers;

5) Specialized media such as 3-dimensional media, healthcare message on A4 paper, notices, poster/vinyl signs, brochures, leaflets, stickers, exhibitions, bicycles, calendars, and public broadcasting vehicles;

The two most influential media include 1) personal media such as people with expertise in a specific area, public health officers in Department of Disease Control, hospitals, provincial public health centers or in districts, municipality administrative offices, and sub-district public health administrative offices; and 2) new media such as websites, e-mails, search engines such as Google.com, Line, and You Tube. These media play key roles in boosting people’s satisfaction, participation, and lead to appropriate behavior of both the officers and members of the public. This results from the real-time responses provided by the media. When people are in doubt, the media satisfy them with immediate answers. Besides, the contents on the media are based on current disease control situations, related to local agenda, and correlated to social and cultural contexts of the community. This is explained as follows:

The most effective activity is training since it allows us to exchange our ideas. When we have questions, we can promptly ask and get the answers immediately. It is very impressive. However, it also depends very much on the speakers. If they are fun, we love them. But some of them are boring, for example, last time we had Prof. Dr. Pongsuk Tungkana. We paid attention to his talk as it served our needs. We need interactions including question and
answer sessions, nonverbal communications, and the chance to exchange our thoughts. (Sao Thong Hin Sub-district Hospital Officer, personal communication, September 15, 2015)

When there is a new diseases, we search for more information on Google. So the Internet or Line is influential. People like them. They provide versatile information and fast. We learn to exchange information about diseases through Line. (Bang Yai Public Health Volunteer, personal communication, September 15, 2015)

Besides, the arrangements for projects or the major activities as well as the minor ones are centered on problems in the area. This is really helpful since it can serve people real needs such as dengue protection, child drowning prevention, road accident prevention and solutions for alcohol control. The news about the spread of diseases or health threats is usually broadcasted nationally and internationally, for example, dengue, Ebola, or Mers. The officers explained that:

When arranging for a project I usually take into account the community contexts, about what their needs are, what their problems are, as well as their daily life and culture. (Bueng Ba Sub-district Administrative Officer, personal communication, November 25, 2015)

Not only local health threats, we should provide knowledge about Mers and Ebola as it could get into the community. (Phra Nakhon Si Ayutthaya Hospital Officer, personal communication, October 22, 2015)

For some cases public address or broadcasting towers play key roles in satisfying and boosting people participation as well as encouraging their healthcare behavior. This is because of the presentation of prompt and continuous information. Local headmen and public health officers provide information through the public address, which can reach every household. Besides, those headmen become closer to their community by hosting a program namely, “Naiyok Phob Phra Chachon” on Fridays at noon. The program features what happened in the community in the previous week, what will be conducted in the future, and healthcare tips. The
employment of these reliable personal media can increase the audience’s trust. The public address boosts their positive attitudes toward the leaders that lead to more participation. As proposed by local administrative officers that:

The most effective media in stimulating people’s awareness, satisfactory, and participation would be the public address. The local people learn that every day from 9 to 4 there is a local radio program. They are looking forward to find out what the topic is. The broadcasting towers help to pass on the program. My talk is not limited to health aspects. It includes any topic of interest, for example, when there is a formal notice from a central organization asking for cooperation I inform them first. Then I give them knowledge. They can learn from this. Also public address is cheap as there is no need for publication. (Bueng Ba Sub-district Administrative Officer, personal communication, November 25, 2015)

On Fridays at noon, there’s the “Naiyok Phob Phra Chachon” program, which gain lots of active attention from the public. The program includes jobs they have done, their plan for next week, and always ends with health topics. We usually present current news such as Khun Por (the actor dying with dengue) as well as the community news such as news about a child who drowned in our area. The chief tells the audience about it and warns the people. (Bueng Ba Sub-district Administrative Officer, personal communication, November 25, 2015)

In some areas, specialized media such as 3 dimensional media and personal media have significant roles in transferring knowledge, increase satisfaction levels, and influence health behavior. The presentation of popular green tea or energy drinks and soda is conducted by Bureau of Public Health and Environment of a municipality together with public health volunteers. The amount of sugar in each drink is presented in a board for people to explicitly see how many spoons of sugar they get from the consumption of the drinks. This method is useful since people still lack the knowledge and awareness about health threats. Also it conveys concrete information, which can raise awareness and change people’s consumption behavior.
I am showing you a presentation of “Whan Son Pit Project” used in our communities. We have adapted it from a symbol concept (3 Or 2 Sor) of Thai Rai Pueng Policy (Thai with No Belly Policy). We realize that a one dimensional vinyl presentation is dull and people are not that keen on searching for health information and have low awareness about it. When being asked what people are eating, how many spoons of sugar they are taking, they have no idea. Then we request them to pick up some garbage, our public health volunteers and the NCD put it on vinyl boards. As a result, they are more interested in the medium. I have asked other public health volunteers to get some packages of those drinks in their own communities and follow this method to raise more awareness of what people are consuming. Some people always have two bottles of M 100 a day. This amounts to 12 spoons of sugar. After they have learnt about the sugar amount, now they only have 1 bottle a day. It’s very effective.” (Phra Nakhon Si Ayutthaya Municipal Officer, personal communication, October 27, 2015)

Moreover, health communication in all communities by public health officers, local chiefs, and the public is conducted through media integration. This is done especially among community media, specialized media, activities media, and new media. However, people seem not to be interested in specialized media such as brochures and leaflets. They tend to focus exclusively on pictures instead of texts. The application of these media with personal media such as public health volunteers, who can provide more explanation and knowledge raise people awareness and interest on the contents.

Regarding Mers the public health volunteers visit local people, bring them brochures, and talk about it. Simply distributing the brochures will not work. They usually throw it away. Few even read it. (Phra Nakhon Si Ayutthaya Municipal Officer, personal communication, October 27, 2015)

We distribute brochures to people and ask them to read, but we don’t know how much they actually read. (Sao Thong Hin Sub-district Hospital Officer, personal communication, September 15, 2015)
In regards to health behavior of community members, everyone including those in public health sector, local administrative organizations, as well as the public, realize the importance of “holistic health.” They all perceive that good health is constituted by healthy body, clear mind with no stress, positive thinking, good environment, and strong society. For them illnesses may result from many factors not only from germs, but also accidents, stress, and poisonous environment and that health promotion is individual’s responsibilities. The responsibility to health is not limited doctors, nurses, or public health officers. These officers are exclusively responsible for provision of information, but the individual must perform it. In the meantime, local administrative organizations are expected to be more active in health communication regarding funding, equipment, participation boosting. This is because they can more actively approach community people than the public health organizations. It is proposed that:

Everyone must be responsible for good health. Every organization must get involved, not only the public health organization. We just try to expose knowledge to them. In the past we did it for them such as the control of dengue. We made them depend on us. We conveyed that when they are sick, they need to see the doctors. But now healthcare shouldn’t be performed by a health centers or by the Ministry of Public Health. Various sectors should work together. The self is the most significant unit in performing health promotion. (Phra Nakhon Si Ayutthaya Provincial Public Health Officer, personal communication, October 22, 2015)

These days I think we are like parents. Our alliance, which consists of the local administrative organizations, is more active and has better performances in health promotion. They provide funding, labors, and equipment for us through sub-district funding. Then we must place more value on them. We need to step back for the community, local administrative organizations, volunteers, or natural leaders to lead the activities allowing them to become the leader themselves. (Office of Disease Prevention and Control, 1st area, Bangkok Officer, personal communication, August 24, 2015)
People realize that health promotion involves with everyone as well as every group and organization. Even organizations that are irrelevant to public health, especially the local administrative organizations, or the public such as community chiefs are more active in conducting healthcare tasks. This is a good sign that local organizations and the public get involved more with healthcare performances, especially a community in which there is the Bureau of Public Health and Environment. At the meantime, the public also changed their health behavior to be away from illnesses initially when they are still strong. They do this by avoiding too sweet, greasy, and salty food, ceasing consumption of alcohol drinks, and doing more exercise. Also people rely more on alternative medication such as herbal usage. Examples include the use of kariyat to relieve sore throat, intake of Curcuma Longa, traditional medicine, wiping of traditional liquid medicine on children’s throats, using of pot containing salt for pregnant woman, having blue trumpet vine to get rid of toxin, the use of sour liquid with smoke of a certain herb as insect repellent, Thai massage, acupuncture, meditation, and having organic food such as brown rice, rice berry, black rice, or vitamin rice. The public believe that the practices can lead to good health both physically and mentally. Even doctors, nurses, or public health officers have turned to alternative medicine and promote people to integrate alternative medicines with modern medicine for some diseases. However, the public health officers propose that alternative medicine should be provided by governmental public health centers such as hospitals, public health centers or at households where individuals are trained and have professional certificates.

I have Thai acupuncture, kariyat, bolus, lots of herbs. Also I take bioorganic consumption, organic vegetables. Usually I search for more information regarding the herbs or vegetables I take. (Bang Yai District Public Health Officer, personal communication, September 15, 2015)

We need to take into account the alternative healthcare providers’ knowledge and experiences. We need reliable medication. (Sao Thong Hin Sub-district Hospital Officer, personal communication, September 15, 2015)

Massage is a good example. In case the massager has less skills or knowledge, the patients would get worse. It is required to be controlled by
their profession. We cannot allow everybody to perform it. (Office of Disease Prevention and Control, 1st area, Bangkok officer)

I support alternative medicine, for example, I ask patients with muscle pain or cough if they would like to get herbs. But this must be authorized in health centers rather than private houses. (Phra Nakhon Si Ayutthaya District Public Health Officer, personal communication, October 22, 2015)

Besides, public health sectors, local administrative organizations, or the public contend that the areas for health promotion shouldn’t be limited to hospitals or public health centers. Health care can be performed everywhere, for example, in a front yard, clenching our fists and let them relax while watching TV, putting your legs up and down while working, exercising by watching clips on You Tube, climbing up and down the stairs at work, or taking a walk at the temple. These can broaden health promotion areas explained as follows:

If we are flexible enough, we can exercise at home. We don’t need to go anywhere. It can even be done at work, at a temple for 5 or 10 minutes. (Bang Yai Public Health Volunteer, personal communication, September 15, 2015)

We can exercise everywhere. There is no need to go to expensive fitness centers. When visiting people we tell them that they can do it at home, just spare a few minutes for it. Stop complaining about having no time. (Phra Nakhon Si Ayutthaya Public Health Volunteer, personal communication, October 29, 2015)

When people come together to exercise, they get more encouragement and are inspired to care for themselves. For those who still do not want to exercise when they see familiar faces involved in it or their own group members, they feel encouraged to join. The suggestion about healthcare from those leaders is more encouraging for them. They become more motivated in performing healthcare behavior seeing that the pioneers can do it. They then feel they can do it as well. The officers explained this phenomenon as:
I think people coming in a big group can encourage others who do not like doing exercise to start doing it. (Bang Yai Public Health Volunteer, personal communication, September 15, 2015)

People usually come in groups and develop themselves to become trainers. They are like you. When we see those that are outstanding we support them. We allow them to use our area. Then we encourage people, who do not like to do exercise, who do not dare to dance or are too shy by talking to them. Besides, when they see the leaders, they start to be interested in exercising. We learn that conversations with them also works. (Bang Yai Public Health Volunteer, personal communication, September 15, 2015)

Moreover, “opinion leaders”, especially the elderly can persuade others to do exercise in order to have good health and become cheerful like they are. They can motivate people and help promote the community to become a healthy community. One volunteer proposed that:

We try to encourage people to exercise by running or jogging. I am now 60, when talking to others in the same age, they don’t believe me. Then I persuade them to do exercise. We can get better health and can cheerfully socialize. (Bang Yai Public Health Volunteer, personal communication, September 15, 2015)

In line with this practice, most organizations such as the local administrative organizations, regional organizations, Ministry of Social Development and Human Security, schools, police officers, Department of Disaster Prevention and Mitigation, transportation companies, NGOs, foundations, private organizations, and the public participate and have more collaboration in health communication. Some of them have become speakers, who provide knowledge, or become volunteers, provincial, district, or sub-district committees, SRRT members, or provide sponsorship.

There are three levels of participation, the public health officers, community heads, local administrative officers are the producers, policy-makers, or
planners, and while the public sector and public health volunteers are the active audience. They give opinions and responses in the meeting with the public health officers. They also reflect their feedback to the receivers. Whereas the public plays their roles as both active senders and audience in applying activity media such as project planning, activity organizing, or field trips. These activities include being MCs, or advisors, who suggest how to eradicate illnesses. Also the public acts as a planner or policy maker by conducting community health plan or projects in order to get more funding. It is proposed that:

Nowadays, the public health volunteers are very skillful. In the past they were too shy to talk on a microphone or did it with shaking hands. Now they can share knowledge, do demonstration the way we have trained them. We give them opportunities to share their ideas, present, and discuss during the training course. They have many chances to present in the meetings. This helps them rehearse and become active and skillful volunteers with much more skills. (Phra Nakhon Si Ayutthaya Provincial Public Health Officer, personal communication, October 22, 2015)

When visiting bedridden patients we explain to the family members what to do. Most of the time, however, they already know well what to do. They have to do it every day with some useful information from us. (Bang Yai Public Health Volunteer, personal communication, September 15, 2015)

We usually ask how they are, whether they have any underlying diseases. If they have diabetes, high blood pressure, we suggest them what to do. (Phra Nakhon Si Ayutthaya Public Health Volunteer, personal communication, October 29, 2015)

The public initially is involved with their sub-district planning. They start from their own problems and write a project to get funding. This is the community’s role. They have much more awareness and knowledge. (Bang Yai District Public Health Officer, personal communication, September 15, 2015)

When conducting a project or activity, if we need anything, LAOs are required to provide us. For example, we talk to the LAO officers about yoga.
Then the public health volunteers will discuss about it. Some of them may be community heads. It is easier. We conduct a plan and write up a project, which serve the real community’s need. The public health officers are our advisors. They help us. (Nong Sua Public Health Volunteer, personal communication, November 25, 2015)

Moreover, it is found that new media such as emails, websites, search engines like Google.com, application such as LINE or Facebook, and You Tube are significant in boosting networking, satisfaction, and healthcare participation. For example, the volunteers, public health organizations, and the LAO officers are in the same LINE group. They share the same objective of exchanging health information, discussing about some agenda, fast cooperating, and making appointment to visit communities. The public also makes use of new media such as Facebook or You Tube in promoting their health, for example they can exercise at home by following clips on You Tube or Facebook Fan Page. Also they read and forward health information on LINE and Facebook. Some of the officers mention that:

For emergency cases we send Line or e-mail messages. It’s our policy to communicate through these channels. We assign tasks and report the results every day. They are fast and effective for disease control. (Nonthaburi provincial Public health officer, personal communication, September 29, 2015)

Now we have a Line group for epidemic control to inform meeting agendas, report the current situations such as when there is a patient getting influenza vaccine and cures. We inform the whole province to monitor the situation carefully. (Phra Nakhon Si Ayutthaya Hospital Officer, personal communication, October 22, 2015)

We all have a Line group, including the district public health officers, local administrative officers, those working in hospitals, and public health volunteers. In the group we have a leader, who is responsible for distributing information. We call each other when necessary. If we are not free, we ask someone else to do it for us. (Nong Sua Public Health Volunteer, personal communication, November 25, 2015)
When we heard about new diseases, we google them to find out about the causes. The Internet and LINE are influential. Now we send information about illnesses through LINE. Also we receive information from our friends. (Bang Yai Public Health Volunteer, personal communication, September 15, 2015)

Some public health volunteers work via a Line group. They also search for information on Google instead of sending stickers. We teach them how to type and search for information on the web engine. They have more knowledge now. (Phra Nakhon Si Ayutthaya Public Health Volunteer, personal communication, October 29, 2015)

Sometimes I suggest people surf the Internet, Google for health information, and dance. I sometimes do exercise following a clip on You Tube. Some people, who are busy with their children, can also do this. (Nong Sua Public Health Volunteer, personal communication, November 25, 2015)

In addition, it has found that local administrative organizations (LAO) both under administration of municipalities and sub-district administrative organizations are increasingly active in community health communication. This is especially true for those with public health and environment division and the communities in which their leaders value health communication. There are many factors that influence a community to become a role model for others. Thus it is proposed that:

I always propose that we should invite community leaders to join our meetings. If they know nothing about what we are doing, it is much more difficult. They are close to the community people and are able to directly approach them. The more the leaders participate and get information, the more health communication can be developed. (Bueng Ba Sub-district Administrative Officer, personal communication, November 25, 2015)

Nowadays, local administration organizations play key roles in health communication. They had been very active. These days when I give a speech, they ask me why policy makers turn to focus on public health agenda. I said
because it is really important. Everything is fine, if we have good health. Then we need to take care of people’s health. (Bueng Ba Sub-district Administrative Officer, personal communication, November 25, 2015)

Municipalities have centered their focus on public relations. For example the one about mosquito protection is very effective. Some of the public addresses are created by the people themselves. They get concrete outcomes from doing it. Our municipality also realizes the significance of the public health. We have done many health projects. Health checking up is also their concern. They even perform it by themselves. We just support them now, but previously we did it ourselves. (Sao Thong Hin Sub-district Hospital Officer, personal communication, September 15, 2015)

In summary, researcher would present the overlap and different points of means of communication of each paradigm discovered from the findings in Table 4.1.
Table 4.1 Means of Communication from Each of the Health Behavior Paradigms

<table>
<thead>
<tr>
<th>Means of communication</th>
<th>Three Paradigms of Health Behavior</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Employed various types of personal media who were health communication leaders,</td>
<td>Health Education</td>
</tr>
<tr>
<td>i.e. public health officers, public health volunteers, community leaders, and recovered</td>
<td>/</td>
</tr>
<tr>
<td>patients together with other media in community for health communication operations.</td>
<td>/</td>
</tr>
<tr>
<td>B. Emphasis on health prevention more than remedy after diagnosis of illness</td>
<td>/</td>
</tr>
<tr>
<td>C. Employ opinion leaders to persuade other locals to be aware of the health promotion</td>
<td>/</td>
</tr>
<tr>
<td>advantages</td>
<td>/</td>
</tr>
<tr>
<td>D. Employ one-way communication in case of epidemic or outbreak</td>
<td>/</td>
</tr>
<tr>
<td>E. Employ mass media, especially television to build accurate knowledge, change</td>
<td>/</td>
</tr>
<tr>
<td>previous attitude and improper behavior in case of epidemic or outbreak</td>
<td>/</td>
</tr>
<tr>
<td>F. Concurrently employ persuasion and participatory communication strategy through</td>
<td>/</td>
</tr>
<tr>
<td>expression opinion which is related to media master and activity details of community</td>
<td>/</td>
</tr>
<tr>
<td>leaders along with public health volunteers through conferences</td>
<td>/</td>
</tr>
<tr>
<td>G. Adjust media and content form to be consistent with community’s taste in social</td>
<td>/</td>
</tr>
<tr>
<td>and cultural context</td>
<td>/</td>
</tr>
<tr>
<td>H. Employ two-way and participatory communication through exchanging opinion and</td>
<td>/</td>
</tr>
<tr>
<td>giving feedback</td>
<td>/</td>
</tr>
<tr>
<td>I. Employ media integration strategy between traditional and new media including</td>
<td>/</td>
</tr>
<tr>
<td>explanation of complex messages in the brochure by personal media or being a content</td>
<td>/</td>
</tr>
<tr>
<td>presenter in activity media</td>
<td>/</td>
</tr>
</tbody>
</table>
Consequently, from Table 4.1, the researcher could present the findings in diagram style. This demonstrates the overlapping and different points of means of communication of each paradigm more clearly as follows:

![Diagram](image.png)

**Figure 4.1** The Overlap and Different Points of Means of Communication Model

From Table 4.1 and Figure 4.1, the findings point out that the most effective means of communication which could be utilized together leading to proper health behavior according to the aims of three paradigms was “Employ various types of personal media who were health communication leaders, i.e. public health officers, public health volunteers, community leaders, and recovered patients together with other media in community in health communication operations”. This is because personal media such as public health officers could give instructions in the case of epidemic or emerging outbreak. This is done in accordance to the aim of health education paradigm. What’s more, in case of outbreaks that can be prevented by vaccination spreading into the community, the public health volunteers and community leaders have to transmit the necessary health message acquired from public health officers to the locals. They need to persuade the people to go for
vaccination and screening according to the aim of health promotion paradigm. Meanwhile, utilizing of opinion leaders to persuade other locals to be aware of the health promotion advantages or having recovered patients explained how to recover from the illness are encouraging. This helps to strengthen their health according to the aim of health paradigm. Moreover, personal media could be integrated with other media such as be a content presenter in activity and community media. This should be done to describe or clarify complicated content in specialized and new media in order to make it easier to understand as explained earlier that:

Personal communication is the best media. When I distributed brochures or leaflets to locals most were not interested to read. Sometimes they read but didn’t understand the complex message such as the content in the brochure related to MERS and Ebola virus. Meanwhile, if having public health officers or public health volunteers are there to explain the confusing message, utilizing Line application to chat or send explanation with pictures to them, the audience would be more satisfied because they could interact and asked on issues that they didn’t understand immediately. (Nong Sua Public Health Volunteer, personal communication, November 25, 2015)

Today, public health agencies can’t operate health work as a single unit any longer. Though we still have the core knowledge, in the time of crisis situation, we have to rely on our network such as in the case of an outbreak or epidemic occurrence such as the case of diphtheria. We had to ask on public health officers and community leaders or even local administrative officers to take us to the scene and track the results. Then we had to give instructions to the victims. (Office of Disease Prevention and Control, 1st area, Bangkok Officer, personal communication, August 24, 2015)

At present, public health officers give the opportunity to other sectors, such as local administrative agencies, community leaders, public health volunteers, or recovered patients to be health communication leaders. So when we visit the community we would take them with us because they are more familiar with the community members. They may also encourage the locals to see the advantages of health prevention such as when we had project about
screening or vaccination. Moreover, recovered patients could also give counseling better than us since they had direct experiences with the illness. (Phra Nakhon Si Ayutthaya Municipal Officer, personal communication, October 27, 2015)

In addition, the researcher discovered the common means through the adjustment of the “health promotion and health communication paradigms”. These means are “Emphasis on health prevention more than remedy when the illness is diagnosed” and “Employ opinion leader to persuade other locals to be aware of the health promotion advantages.” As mentioned previously as follows:

I have been given the instruction from sub-district hospital officer in order to see the advantages of exercising and not eating salty, fatty, and sweety foods. After I practiced along these instructions and saw the benefits, I suggested the locals to turn to exercise. Actually, I am nearly 60 years old but they thought I was still younger than my real age. After that many, especially the elders began to turn to exercise because they saw me as a role model. (Phra Nakhon Si Ayutthaya Public Health Volunteer, personal communication, October 29, 2015)

I obtained the opportunity to present how to recover from diabetes on screening day. This made me proud because officers realized that I could be a part to give encouragement and could be a role model to other patients to fight with the health threats. (Bang Yai Public Health Volunteer, personal communication, September 15, 2015)

4.2.2 Objective No.2: To Analyze the Communication Factors that Lead to the Success Stories of Communities in Health Communication

The analysis of communication factors that impact on the community becoming a successful case for health communication is developed by taking the Communication Components as the baseline. The theory includes four communication factors 1) senders, 2) message, 3) channels, 4) receivers, and 5) community context. These are discussed in the following section.
4.2.2.1 Sender

1) Senders with flexible and broad vision about health communication, who support participation in health communication tasks

Public health officers realize that illnesses are resulted from many factors including germs, accidents, stress, poisonous environment, collapsing societies. It can be said essentially aggravated by people’s risky lifestyle and health behavior including how they eat what they want, or eating too sweet, greasy, and salty food with no exercise or the late practice of healthcare after getting illnesses. This is supported by some officers that:

For me good health is derived from a healthy body with peaceful mind. Having a healthy body, but damaged mind results in illnesses. Our mind is peaceful provided that the environment is livable. Also their ways of thinking, attitudes, and behavior are also important. If they are positive thinking and do good deeds, then they are happy. (Office of Disease Prevention and Control, 1st area, Bangkok Officer, personal communication, August 24, 2015)

Moreover, public health officers put forward that “having good health” is not only derived from the healthy body. It holistically includes strong mind, enough food, tight sleep, adequate income, positive thinking, abilities to solve problems and obstacles that threaten one’s mental conditions as well as being in good environment and society. Besides, they tend to have broader visions seeing that not only they are competent, but also 1) other public health officers, 2) community heads, 3) public health volunteers, 4) people, who had been ill, and 5) family members, who have experiences in taking care of patients, are able to become health communication leaders. Everyone can equally get involved with health communication. As proposed earlier that:

I think we still need more leaders if we continue to wish people to have good health. It is our aim and there is no political issue. We have done this. We are close to the public to help them have better lives. If they are sick, we know it because we are so close to one another. (Bang Yai Public Health Volunteer, personal communication, September 15, 2015)
The real health leaders are our community heads and public health volunteers. We can’t approach all people, but the volunteers are scattered around in all the villages. This encourages faster health communication. I think the most influential models are people, who had been ill and many public health volunteers. We have trained them to take care of health tasks such as teachers. I think they are more influential. They are in the community. For example, a family member taking care of her paralyzed mother is now a speaker for many villages. These two groups can make good models. First, they need to take care of themselves well, trying to do it by themselves and doing it seriously. (Phra Nakhon Sri Atuthaya Provincial Public Health Officer, personal communication, October 22, 2015)

All organizations can make powerful opinion leaders, such as police officers. These leaders should be well-known people, who are accepted by others and have good family history. Also they must be good public people, who have good health. These people can make good models even though they are not in the public health profession. Some of public health officers cannot be good models if they smoke in public. (Sao Thong Hin Sub-district Hospital Officer, personal communication, September 15, 2015).

To conclude, the leaders for health communication must take care of themselves well. They should not have illnesses that can be prevented. They must be able to transfer knowledge or suggestions, be the inspiration for others, and encourage community people to promote their health. Also, they must provide answers for others, share opinions, and have public mind when performing health communication tasks. Consequently, not only people in public health sectors, but also those in local administrative organizations (LAO), who have no public health educational backgrounds, need to be active in community health communication. For example, some sub-district administrative organization chiefs realize that there are too many accidents in their areas. Then they try to figure out the potential causes. They found that the accidents are resulted from unawareness of helmet wearing, no warning signs, and dim light along the roads, or problems seeing bridges. They, finally, cooperate with public health volunteers, and community heads to set a checking point
for 7 days during the New Year and Songkran festivals. Helmets are sold on site and warnings are given. Also, bridges are repainted and flashing light, road light, and traffic signs are deployed. This results in more warning signs in the renovated areas.

For example, a sub-district administrative organization chief in Banmai runs a cycling club, for which there is a bicycle funding. He had fallen from the roof and hurt himself. After doing exercise, he got better. As a result he helps to train others about chronic diseases. He shares his experiences by becoming the community leader. (Bang Yai District Public Health Officer, personal communication, September 15, 2015)

Previously, there were a lot of accidents. We have seen the problems and then we apply prevention strategies initiated. As directors we must be aware of the problems. We must realize their causes such as thick trees, unobvious bridges, inadequate warning signs with no light or flashing light, insufficient traffic signs, and road lights. After the problems have been fixed, the number of accidents decreased. As a result of a severe accident in which four people died, we realize of the significance of prevention and solution strategies. The chief extends the project to cover all areas enforcing traffic regulation training for the people. (Bueng Ba Sub-district Administrative Officer, personal communication, November 25, 2015)

For example, in Hnong Sau, people are active in preventing accidents by renovating the roads and the environment. This is the result from an accident in which two people died from not wearing helmets. The causes of the accident included unclear views on the roads and drunk driving. People in the community became eager to prevent this kind of accidents. The sub-district administration chiefs as well as police officers started doing it. They did not wait for us fearing it would take too long.”(Office of Disease Prevention and Control, 1st area, Bangkok Officer, personal communication, August 24, 2015)

The initial collaboration between sub-district local administration organizations and public health volunteers, has led to the awareness of the project success in many organizations. Now it is used as the model for “road accident
prevention and solutions or Bueng Ba Model”. The number of organizations that visit
the community to learn from them is increasing. Without the need to advertise, the
community obtains collaboration and partnership from organizations beyond the
health networks. These organizations include the Provincial Public Relation,
Provincial Transport, police officers, soldiers, Department of Disaster Prevention and
Mitigation, transport companies, Department of Highways, and etc. Regarding the
Deputy Chief Executive of the municipality and the Chief Executive of the SAO.
Many of the members of these organizations do not have public health educational
backgrounds, when they visit the community together with the public health officers
they usually become eager to share their experiences of how to get rid of their
illnesses with others. Later, they are confident to do it again. Eventually, they can
inspire people of how to get better from knee pain or accidental falling from high
places, how to lose weight, to adjust their eating behavior, and to take care for
themselves including the establishment of a cycling club.

In terms of participation in health communication, the
community must be involved with all the three levels of participation. Apart from the
public health officers and the chief executive of SAO, public leaders such as public
health volunteers, community heads, people, who had been ill, as well as children and
youth clubs need to be allowed to become the public representatives. They need to be
involved with all the three levels of participation. The people, who perform the three
levels of participation are 1) the public health officers in public health organizations;
2) the public health officers and the chief executive of SAO; and 3) the public sector.
These public health officers and the chief executive of SAO as well as the public
relations officers of the two organizations participate with health communications at
levels two and three. It can be said that they are 1) media producers/presenters and 2)
planners/ policy makers. They usually produce and present health contents or radio
spots through public addresses/ transmitting towers with the assistance on the design
and content selection from public health officers, public relations officers, or
community heads.

Consequently, the public health officers in public health
organizations in the community along with the local administrative organizations
collaborate in selecting health contents and plan the templates/ contents based on
those presented on brochures, leaflets, posters/project and activities from the central health organizations. These media usually focus on clean food, diabetes and high blood pressure checkup, NCD prevention and control. Then they apply the contents that are correlated to their social and cultural contexts as well as health threats in the community. In addition regarding community health plan/project writing to ask for funding from the LAO, community heads do it with support from the public health officers and public health officer of the LAO. They must be prepared with formal memos/formal letters in the final phase. Moreover, the public health officers and the local administrative chiefs provide opportunities for the public to become public representatives and participate in all the three levels as 1) active audience, 2) media producers/presenters, while some community heads participate more as 3) planners/policy makers dealing. The task includes conducting disease preventing/warning in A4 paper, writing community health plans/projects to request for funding from the LAO with assistance from the public health officers and public health officer of the LAO. This is supported as follows:

We include some of the contents in brochures, leaflets, posters, or public address by ourselves combining some information from the public health organizations. We also hire people to help with the artwork. We tell them what we want and strictly regulate the content based on the Ministry of Public Health. In terms of activities, we hold a public meeting in every village where people of all ages, and genders can make suggestions or propose problems so that we can conduct a plan to solve the problems. Also we meet with the public health volunteers monthly. (Phra Nakhon Si Ayutthaya Hospital Officer, personal communication, October 22, 2015)

We always provide opportunities for the public sector, for example, when being invited to be guest speakers, we always ask our public health volunteers to join us. (Phra Nakhon Si Ayutthaya Municipal Officer, personal communication, October 27, 2015)

During their long vacation we meet with our children and youth club members. We develop a monthly plan for what to do. I allow them to think and present their activities. Regarding the plan writing we discuss the problem
we are facing and what we would like to do. They can reflect the problems and needs more than what we propose. Then they are proud of their potential and abilities. Finally, the community participates more in the projects or activities. (Bueng Ba Sub-district Administrative Officer, personal communication, November 25, 2015)

It is also found that “one-way communication” is essential for public health senders regarding tasks such as work tracking in their own team when an urgent report must be sent to the provincial public health organization. It is also significant when there is an incidental spread of disease in a community or outbreak cases. This includes cases where the patients die of dengue, finding of patients with meningococcal meningitis, or identifying the numbers of children with food poisoning at the same time in schools or at home. Finally, it is vital in the case of stubborn patients, who deny going to the hospital. One-way communication must be performed during the campaign for vaccination of diphtheria or tuberculosis. This must be done by identifying drawbacks of not getting the vaccine explaining that it may be fatal in some cases.

2) The awareness of community health communication among the leaders and health promoters

Community heads, public health officers, and LAO officers, who are aware of the significance of health promotion, can make good “Leaders/Health Communication Senders.” They tend to have the necessary vision and are active in promoting long-term health promotion. Also they prefer their people to have knowledge. They are keen on promoting their health initiatives when people are still healthy. These people have lots of impact on others, who have been interested in health communication, especially the public health volunteers and community heads. These people are brave enough to volunteer and become active in health communication. Later, they can become “health communication leaders.” These people are aware of the impact of good leaders in directing projects or activities to become continuous and sustainable in health communication. Besides, good leaders require having empirical achievement and continuously develop their performances to prove their intention, attention, and real devotion. As mentioned earlier that:
We must be a good model for everyone. How we project ourselves is important. We must be approachable, charming when asking for cooperation or collaboration with others. People tend to help us more. It depends on executives, leaders, and powerful people, and their vision. We must be responsible for transferring knowledge to our people. When they are in good health, everything will be fine. When we can prevent and reduce loss, we never hesitate. (Bueng Ba Sub-district Administrative Officer, personal communication, November 25, 2015)

Leaders in all sectors are integral. If they are interested in something, people are willing to participate. They are active and are eager for new things. Eventually they create some good things. (Nong Sua Public Health Volunteer, personal communication, November 15, 2015)

Moreover, the close relationship between the leaders and their networks including LAO, other governmental organizations, private sectors, and the public as well as their determination in performing health communication result in more collaboration from internal and external sectors. Besides, the way leaders project themselves to be close to the public, care for them, listen to their problems, and approach the community are effective in boosting levels of satisfaction. People seem to be aware of their potential and inspired to perform more health care. It is proposed that:

Our networks come to approach me. I don’t have to ask for their collaboration as we have shown them concrete outputs initiating from a small start leading to a huge success. They will come and learn from what we have done. (Bueng Ba Sub-district Administration Officer, personal communication, November 25, 2015)

We need to listen to them, talk to their relatives, and figure out their problems so that we can support them. Some of them have no cars, no relatives, so they can’t get our services. I think we are unique because our executives listen to people’s problems by themselves, then they try to solve these problems. As are result, the community people have higher morale, are
pleased with the services. When we need their help, it is a lot easier. With bad relationship no one wants to work with us. (Phra Nakhon Si Ayutthaya Municipal Officer, personal communication, October 25, 2015)

The collaboration with DHS in health communication of those leaders, especially the ones in district public health centers or regional hospitals is done in line with CUP Management. The concept refers to the horizontal collaboration of three organizations namely, hospitals, district public health centers or health centers, and community health organizations to encourage the improvement of health communication in the district. First, district public health centers or the regional hospitals with an epidemiology center must be responsible for conducting the R506 report. The ten most frequently occurring diseases records are collected including the monthly numbers of patients or people who died from the disease. In addition the monthly and annual prediction of the spread of the diseases must be performed. Moreover, the public health officers as well as hospital officers must assist in transferring DHS policies to other sectors for them to understand and to perform accordingly. The officers also devote and put their efforts throughout investigation of the five major indicators for assessment. All the sub-indicators are analyzed so that each of them is achieved. Despite the fact that some of the indicators in all of the three areas had failed in the last three years assessment. However, their efforts and motivation in learning more about the indicators, analyzing their weaknesses and strengths in the previous years along with working experiences of some public health officers and their sense of belonging in the community, which helped them to realize their own problems, the result is the highest assessment scores in 2014. Thus, it is proposed that:

I have set my goal that someday I will make it. We had high numbers of patients with dengue. I then centered my focus on epidemiology to learn about DHS indicators. I found that they are correlated to what we have done in the previous years, so they are our strengths. SRRT, our quick investigation and protection, is also our strength. It involves abilities to predict disease trends. I did it every month. R506 is employed to analyzed disease spreading trends
and potential people and places of spreading focusing on disease prevention and fast disease investigation within 24 hours. In terms of the outbreak, I also conduct the same SRRT for all the five sub-district health promotion hospitals. (Bang Yai District Public Health Officer, personal communication, September 15, 2015)

We usually decode each indicator and identify which organizations are responsible for them such as the provincial, district, or sub-district level. We then hold a meeting to discuss the roles. (Phra Nakhon Si Ayutthaya District Public Health Officer, personal communication, October 22, 2015)

For our case we checked out the disease incidence. We initiated some activities during 2011-2012. We were outstanding from our campaign, “Wai Say Glai AIDS,” (AIDS Protection for Youth). Also we are exceptional regarding our accident prevention campaign since 2013. In 2015 we were chosen to represent the district indicator in terms of child drowning prevention campaign. (Bueng Ba Sub-district Administrative Officer, personal communication, November 25, 2015)

We failed to reach DHS standard during 2011-2013 due to our poor epidemiology. So far we have passed the assessment three years in a row. Our performance improved because we have implemented our activities continuously. Maybe it is because I closely monitor the area. I realized the cause of the problems and targeted on solving them. For instance we have a three-year running campaign against alcohol drinks. At the beginning the results were unstable, but now it is getting better. We encourage the public to perform the investigation by themselves. It might be because of our continuous follow-up, that makes us successful. (Bang Yai District Public Health Officer, personal communication, September 15, 2015)

In line with the previous factors, the ability to assign tasks to the right organizations is one of the factors that results in higher assessment scores. It is crucial that the leaders must be careful in conducting the analysis and investigation of their own areas. For example, they are required to do a holistic disease investigation report and prompt disease monitor and control. In addition they have to
update the disease-monitoring database. The database includes a monthly report of the top ten diseases in the district (R506), the performance of tasks according to the frameworks and indicators from the Division of Planning, Department of Disease Control. Since this organization set the policies, the communities that follow their policies, are likely to become successful model communities in 2014.

Consequently, the community leaders realize that there are other factors, which contribute to their success. These include 1) the integration of two-ways communication and one-way communication to exchange opinions, feelings, and experiences during epidemic disease crises; 2) participatory communication; 3) teamwork; and 4) networking and alliances. Besides, they have an idea to expand and exchange the knowledge to other districts and are ready to learn from other communities, so that they can apply it in their own areas. It is explained that:

We got the award because of communication and participation. The most effective participation is from the public. The way they take care of their health is the best reward. Also the exchanges of opinions and two-way communications among all organizations, who get involved, are integral to our success. (Phra Nakhon Si Ayutthaya District Public Health Officer, personal communication, October 27, 2015)

Communication and participation are crucial. If we perform poor communication with bad relationships, nobody wants to participate. We get accepted because we get empirical outcomes. We keep doing it continuously. (Bueng Ba Sub-district Administrative Officer, personal communication, November 25, 2015)

Every organization ranging from hospitals, district public health centers, sub-district health promotion hospitals, municipality, to public health volunteers do their best. Each is like a piece of jigsaw that completes the picture of a strong district. Each of us are interwoven in the same network. (Phra Nakhon Si Ayutthaya Municipal Officer, personal communication, October 27, 2015)
In Nong Sua people are aware of road accident prevention. They form a team, appoint leaders, and set up checkpoints at night to monitor drunk people. The checkpoints are run by the people in the community. Last year they did this exclusively in Nong Sua, but this year they will expand to cover the whole province. The provincial organizations are pleased to support them. (Office of Disease Prevention and Control, 1st area, Bangkok Officer, personal communication, August 24, 2015)

We also learn from other communities, for example, we collaborate with U-tai District and Bang Ban District on conducting projects. For instance in the development of the campaign for diabetes and high blood pressure behavior changes, we discussed with the community leaders about the factors that happen in each community contributing to the success or the failure of the campaign. We learned from their direct experiences. We then transferred the knowledge to our people so that they can apply it to suit their communities. (Phra Nakhon Si Ayutthaya Hospital Officer, personal communication, October 22, 2015)

However, there are some challenges in achieving DHS standards by the communities. For example, some public health officers maintain that those main indicators and the sub-indicators applied as assessment criteria for DHS are specified by executives in Division of Planning, Department of Disease Control without participation from regional officers. Moreover, these indicators are revised every year since 2011 until 2015. The drawbacks result in difficulties to perform tasks. The public health officers, who are responsible for translating the indicators to the other sectors, need to learn about the revised indicators every year. This results in discontinuity of previous projects as explained:

We struggled much during our first year as there had been lots of indicators to achieve. The situation was even worse as the indicators were usually readjusted to reach perfection, but in reality they are impractical. (Office of Disease Prevention and Control, 1st area, Bangkok Officer, personal communication, August 24, 2015)
I think the indicators must be stable first before being adjusted. The people who perform the tasks must be familiar with them. It should be a part of their routines rather than the regular readjustment. (Phra Nakhon Si Ayutthaya Hospital Officer, personal communication, Ocber 22, 2015)

First, we needed to learn about the indicators. To do so we had to work very hard. We were not so sure about the indicators, but we are required to transfer them to the districts and then to the sub-districts. They are top-down rather than bottom-up. In the first year the focus was on empowering people, but later the indicators were changed into area expansion of some disease prevention. Then there are problems in transferring as we need to reconsider the criteria all over again. (Nonthaburi Provincial Public Health Officer, personal communication, September 29, 2015)

4.2.2.2 Messages

1) Messages that can satisfy various needs and correlate to the needs of the community

This refers to contents that appear on media especially, specialized media such as brochures, leaflets, poster, vinyl boards, and those presented on A4 paper. In addition this includes speech given as personal media in short poetic expressions and mottos that are easy to understand. The heath messages are aimed towards the following groups:

(1) Focusing on protection means such as “Kin Ron, Chon Klang, Lang Mue” (to protect diarrhea); “2 Por 1 Khor” (to protect dengue); and “Yah Luem Lady Check Phra Chum Pee” (for Cervical cancer and breast cancer). “The public can access the services from all nearby public health centers and hospitals under administration of the Ministry of Public Health without charge. The vaccine against diphtheria and tetanus can be done in one injection” (Campaign for diphtheria vaccination);

(2) Focusing on healing such as “when having high temperature 1) wipe the body to cool down, 2) take paracetamol don’t take other medicines, 3) within 3 days if the temperature is still high the patient should get a blood check, which can be done for free”;
Focusing on health promotion, for example, “You waste more time and money when you get sick. Millions of money means nothing at such times” or “You cannot buy good health, you must work on it yourself”;

(4) Focusing on awareness of health threats such as the message featured in “Waan Son Pit” (to campaign for diabetes prevention);

(5) Focusing on the correlation with social and cultural contexts, for example, “If you see any stores, which sell alcohol drinks during prohibited time, please inform the district health center at Tel…. or E-mail to ….” (to control alcohol drink consumption). This includes the message in Lamtud Fundee Campaign. Some parts apply the concerns of the central health organizations and some are creatively created from the community problems. This is how the messages are modified to serve community’s needs and taste. These messages are correlated to the real social and cultural contexts of the community. It can be explained as:

Sometimes we use too many technical terms, for example, hand, foot and mouth disease or Mers. People want to know which viruses cause these diseases. They want the information from the central organizations. We need to decode the message and simplify the presentation to explain that the diseases are caused by a certain virus. However, we must keep the original contents. Also mottos are effective such “Lady Check” for breast annual check or “Kin Ron Chon Klang Lang Mue”. They are easy and people understand them. (Sao Thong Hin sub-district hospital officer, personal communication, September 15, 2015)

In Ayuthaya we are well-known for our Lamtud. We then hold a Lamtud Fundee Campaign to give health education through singing rather than simply telling them. The elderly and the public like it. Our Physical Medicine & Rehabilitation officers design and perform it themselves. The messages are centered on dental health. (Phra Nakhon Si Ayutthaya Provincial Public Health Officer, personal communication, October 22, 2015)

In terms of brochures, we get some negative feedback that they feature too much information. People prefer to know how to apply the knowledge. Then we revised the contents such as when your child has high temperature,
you should 1) wipe the body to cool down; 2) take paracetamol not other drugs; (3) within 3 days if the temperature is still high the patient needs to get a blood check, which can be done for free. This might serve their needs. Also we suggest doctors in our public health centers where too much knowledge is transferred. After getting the feedback, people seem to like the messages more thus increasing satisfaction. (Phra Nakhon Si Ayutthaya Sistrict Public Health Officer, personal communication, October 22, 2015)

We need to employ psychological concepts to encourage people to be aware of taking care of their health. Messages include “You waste more time and money when being sick, millions of money means nothing at such time” or “You cannot buy good heath, you must work on it yourself. (Bueng Ba Sub-district Administrative Officer, personal communication, November 25, 2015)

The vinyl signs for Waan Son Pit Campaign for the community are three dimensional. We ask the public health volunteers to collect packages of green tea, M 100 (an energy drink), or soda to present concrete examples of what people in their community consume. This can raise their awareness, for example, some people have two bottles of M100 a day. After they know that it contains 12 spoons of sugar, they only have one bottle a day. (Phra Nakhon Si Ayutthaya Municipal Officer, personal communication, October 27, 2015)

When producing media or conducting a project or activity, I usually take into account their needs, problems, lifestyles, and culture. (Phra Nakhon Si Ayutthaya District Public Health Officer, personal communication, October 22, 2015)

4.2.2.3 Channels

1) Various types of media that are in line with the community’s social and cultural contexts

In terms of health communication media, it was found that they are more diversified and related to community’s social and cultural contexts. Even though some media such as brochures, leaflets, posters, projects, many activities are guided by the central public health organizations such as those in Ministry of Public Health, Division of Disease Control, or Office of Disease Prevention and Control, 1st
area, Bangkok, the public health officers in the communities in public health organizations or local administrative organizations also put their efforts in modifying the messages. Their efforts create messages that are in line with their community’s social and cultural contexts as well as health incidence in their community. An example is the policy “Khon Thai Rai Pung” (the campaign to raise awareness about obesity and to encourage Thai people to lose their weight) of the Ministry of Public of Public Health by 3 Or 2 Sor (a campaign for chronic disease prevention) principles. Health officers cooperate with public health volunteers to create “3D media”. For example, they use the labels of some drinks like green tea, soda, and energy drinks put on the board with their amount of sugar so that everyone can see how much sugar they will get from the drinks in term of teaspoons. Moreover, health officers both in the Public Health Center and in the Provincial Administrative Organization used participatory communication through meetings. In addition, the leaders both public health volunteers and leaders of the community gave opinions about the details of the projects and activities. These included concerns about disease situations and health problems in the area.

Consequently, “things in the community” were used as “community media”. This includes communication in specialized media, community media, and activity media like voice on the Line for internal public relations, news station, coffee meetings, Lamtad (traditional Thai singing performances), Klongyao (Long Thai drum), application of weaving things, billboards, 3D media, A4 paper, stickers, bicycles, and calendars with pictures of community activities, leaders, and health officers. Furthermore, people in the community become “personal media” for health promotion in the community. These people include district health officers, hospital officers, sub-district health officers, community leaders, local wisdom, public health volunteers, recovered patients, and children public health volunteers. This has been summarized from earlier comments as follows:

We created stickers and adapted them. We think it is a useful small media. People can understand them easily. It is also distributed everywhere. Actually, it is from the policy of drinking alcohol control campaign and it really worked. People, villagers, and police also collaborate with us in running the project.
We have enough vinyl banners, but the communication is not available in the community. Doctors in the provincial public health organization told us to cut the budget of vinyl banners. The situation remained the same. There was no process to update the information. Then there was the spread of MERS. We encouraged public health center making the public relations as the available tools. They used A4 paper put on the entrance and exit for letting people know the news and they sent us the photos. It worked and people got news of MERS. It was better than using big posters. I think the communication should be processed at the sub-district level. It will be more successful. (Phra Nakhon Si Ayutthaya Provincial Public Health Officer, personal communication, October 22, 2015)

Sometimes public health volunteers used A4 paper featuring health knowledge and delivered it to people’s houses. In the past, there was the competition in making brochures by public health volunteers. But I think there were few patterns and it cost a lot of money. (Bang Yai Public Health Volunteer, personal communication, September 15, 2015)

Lamtad Fun Dee campaign is administered by Family Nursing Centers. The health education was taught. It was not just the typical lecture format. Lamtad was used for attracting older people and others who like it. Officers at public health center were the leaders. They created the show, sang, and performed themselves. The performance was about the dental health. Later, older people were invited to be volunteers in composing the songs and they joined officers in singing. We invited them to sing Lamtad in the hospital events for attraction. (Phra Nakhon Si Ayutthaya District Public Health Officer, personal communication, October 22, 2015)

Our personal media works very well. I think public health volunteers are perfect. People can reach community leaders, public health volunteers to meet their needs. It is clear that we can have two-way communications. We can talk and negotiate with community members. (Bang Yai District Public Health Officer, personal communication, September 15, 2015)
However, health officers and leaders of community propose that mass media like television is still useful for health communication in communities. That is to say people can access the media easily and widely. It is suited to presenting the news of new and old diseases like MERS, Ebola, and dengue. Not only can it encourage people to know how important of diphtheria vaccine is, television has an important role in giving knowledge, raising awareness, and adjusting their health behaviors. Besides, health communication nowadays such as e-mail, websites, and search engine like Google.com, Line, Facebook, and YouTube also have roles in health communication. These kinds of media play key roles in health communication in communities to achieve the goals of taking care of people’s health and answering people’s questions in the community. Moreover, they are channels in communication for solving disease and health problems in the network of health officers themselves. The health officers and provincial health officers, leaders of community and those two groups of health officers, and leaders and people in community can promptly discuss the necessary information. Furthermore, the use of health communication in three areas involves media integration such as the use of specialized media like brochures, fliers, exhibition, bicycles, and stickers along with personal media in explanation, conversation, and exchange of ideas. The personal media makes use of the means that people rely on such as radio broadcast or activities. In addition it includes field work and visiting, bed ridden patient visiting, and diabetes, high blood pressure, and cervical cancer screening, the personnel provide information through their engagement.

The content used in health communication of health officers and people in community in normal situations (no diseases or not in the outbreak cases) is mostly two-way communications. This is done through personal media, activities, specialized media, community media, and new media like meetings in field trips, sending messages via Line on health promotion, supporting patients, encouraging people to take care of themselves, promoting understanding and exchanging experiences with bed ridden by psychology talks, asking problems from relatives, family and also the patients themselves. It is mentioned as follows:
In performing 3 Or 2 Sor (a wording campaign for chronic disease prevention) activities we hold meetings to provide knowledge to some representatives. There were 50-60 people in groups from every sub-district. Each group presented their activities, for example, group 1 eats vegetables, does exercises, does not eat oily food. There was a competition in the innovative stage. There were activities like telling stories, exchanging ideas, and giving opinions during the campaign. (Phra Nakhon Si Ayutthaya District Public Health Officer, personal communication, October 22, 2015)

I had high blood pressure. I noticed that I liked salty food. Then after the blood pressure got higher, I stopped eating flavored food. My blood pressure was normal then. I told this to the community that I chose to cure myself without taking medicines. (Phra Nakhon Si Ayutthaya Public Health Volunteer, personal communication, October 29, 2015)

When I visited bed ridden patients, I always bought some souvenirs for them. This supported them to keep going. We had to listen to their conditions and talk to their relatives about the problems to discover the areas that we can support them. Some people have no cars, relatives, and they cannot access the services. (Sao Thong Hin Sub-district Hospital Officer, personal communication, September 15, 2015)

Mostly, we went to the communities and visited bed ridden patients or patients with dengue. We talked to them and asked for their cooperation. We told them that this is caused by mosquitoes and asked them to notice their symptoms as well as their neighbors after getting fever. We had to listen to them. Meanwhile, they needed our feedback as well. We would know their needs, which related to our jobs. Then we knew what to do next. Mostly, the bed ridden patients just needed more morale from us. (Sao Thong Hin Sub-district Hospital Officer, personal communication, September 15, 2015)

However, when outbreaks occur such as the fatality from dengue virus, patients are infected with meningococcal disease, and food borne disease among children at schools teams of provincial health officers, sub-district health officers, doctors and officers in hospitals, health officers, leaders in community
and health volunteers are required to perform one-way communication. The focus is on new media and personal media. For example, the Surveillance and Rapid Response Team (SRRT) has to be ready to get to the area within 24 hours in case of an outbreak. They must survey the schools, relatives, parents, and the environment in houses. Besides, suggestions of how to strictly prevent the disease are provided with immediate contact in emergency cases. If patients did not want to get the treatment at the hospitals like getting diphtheria or tuberculosis vaccines in the campaign, health officers would use the communication to let they know about the negative results. The communications made through the public relations focus on the fatality from not getting the vaccines.

2) The strong collaboration between network membership and partnership

All sectors in community consensually agree that teamwork is the most important factor that results in their highest score according to DHS and the Best Active District for Long-term Disease Protection Award by Office of Disease Prevention and Control, 1st area, Bangkok. “Team” does not consist only of health officers in department of disease control, provincial public health officers, district public health, and hospitals. In addition it includes local governments, organizations, private organizations, non-governmental organizations, and people both inside and outside communities who support and collaborate in any kind of health communications such as 1) local government, leaders of community, health officers, public relations of municipality, and sub-district administrative organization in the support of budget, officers, tools for collaboration along with Ministry of Public Health; 2) provincial organizations and others like provincial governors, district chief officers, assistant district chief officers, sub-district headmen, teachers who participate in the health community in the provincial, district, sub-district levels, and Surveillance and Rapid Response Team (SRRT), who support the organization under its control to have strong disease prevention; 3) private organizations and non-governmental organizations (NGOs) like Rojana Power Plant who support budget in buying some medical equipment, beds, and suctions for the terminal stage as a result from their realization of the effects to the environment caused by their plant. In addition, Tanyarak Institute and Sukjai Foundation take part in giving lectures on AIDS and
drug topics; and (4) the public sectors such as leaders in community, health volunteers, leaders in health communication who have important roles in giving knowledge and news from officers to community. The SRRT takes care and investigates the outbreak.

Many sectors, both from the public health organizations and the non-public organizations, form a “Network” which relate to health communication in many communities. They all realize that health communication in communities cannot be operated exclusively by public health organizations as done in the past. The following quote illustrates this point.

I think my network is strong. It is OK. When there are the disease outbreaks, we work immediately in many districts. Nowadays, local government organizations provide the budget for healthcare. They focus on living, taking care of old people because only public health organization cannot work alone. Although, we have knowledge, if we do not have network, we cannot work. (Phra Nakhon Sri Ayutthaya District Public Health Officer, personal communication, October 22, 2015)

Initially, we worked alone because no one knew the details of the work. The cooperation was delayed and other organizations did not understand the benefit of work. Later, we conduct better communication in each area to cover the DHS policies. We are evaluated in many areas. We need to work together. Then a teamwork and network are developed. This leads to good cooperation with other organizations, which are not related with public health. For example, the incident of dengue in Nonthaburi Province had been in the top rank of the country. However, it was decreased to one of the ten at the bottom of the rank. (Nonthaburi Provincial Public Health Officer, personal communication, September 29, 2015)

Regarding the incident in Hnong Sua, Department of Disaster Prevention and Mitigation, police officers, and Department of Highways collaborate in performing tasks. They understand the circumstances and effectively raise more collaboration from the community people. So communications, participatory idea exchange, and negotiation of all sectors
are very important. (Office of Disease Prevention and Control, 1st area, Bangkok Officer, personal communication, August 24, 2015)

As a private sector organization, Rojana Power Plant provides funding for Horattanachai Sub-District since the area has been polluted by the factory. About 30% of the budget is spent on solving health problems. For instance, hospitals created the project to take care of patients in the terminal stage. The budget was provided to buy some tools such as beds, suctions, and other medical tools for patients who wanted to be cured at home, and the ones who were bed ridden. Fortunately, the power plant realized environmental effects they have caused, so they are pleased to provide compensation for the society. (Phra Nakhon Sri Ayutthaya Municipal Officer, personal communication, October 27, 2015)

Three samples of community health networks are as follows; 1) “Field Work and Community Visit Network” in Phra Nakhon Sri Ayutthaya District, Phra Nakhon Sri Ayutthaya District, which is formed by “individuals” to be the network members such as health officers in district, hospital officers, deputy chief executive of mayor, chief executive of the Sub-district Administrative Organization (SAO), municipality officers, public health volunteers, and headmen of the communities; 2) “Road Accident Prevention and Solving Network” in Nong sua District, Pathumtani District which is a network formed by “individuals/organizations”. Moreover, there are the alliances outside the network participating by providing resources, workers, and budget. The alliances conclude the SAO, District Public Health Office, Provincial Governor, Ministry of Social Development and Human Security, police, Department of Highways, Department of Disaster Prevention and Mitigation, the transport Co., LTD; and 3) “Alcohol Control Network” in Bang Yai District, Nonthaburi Province, a network, which was formed by “individuals” including the alliances outside the network who helped in resources, workers, and budget. The network members were district public health officers, sub-district headmen, village headmen, officers of Sub-district Hospital, police, public health volunteers, and headmen of communities.
4.2.2.4 Receivers

1) Changing role of the public to become an active audience

In the past, the public health sector usually believed that other sectors did not have knowledge, responsibility, and enthusiasm (Passive audience) in taking care of their health. This is especially true of people in the communities. In addition, they only asked for help from public health officers so that the public health officers tried to persuade people to see the importance of health care through 1) personal media like public health officers and (2) main mass media like television.

However, the passive audiences are now more active. They take more involvement in health communication by being public health volunteers, volunteers, elderly care volunteers, surveillance and rapid response team (SRRT), health committees in the province, district and sub-district level including being the members of health projects or activities. The following quote illustrates this point.

The projects are hosted by the public health organization, which provides the academic information. Meanwhile people, community, and all other sectors are the main players that provide support and prevention. Actually, all sectors collaborate in working. We give knowledge and the processes of treatment, while officers of sub-district health promotion hospitals and local government run the processes because the budget was mostly provided from the local government. (Office of Disease Prevention and Control, 1st area, Bangkok Officer, personal communication, August 24, 2015)

Public health volunteers are the real health leaders because they can approach the community people easily. It is time-efficient. The members are those ranging from children council, teenagers, women groups, career groups, elderly groups and public health volunteer groups. When we inform them about the project news, they are ready to participate. (Bung Ba Sub-district Administrative Officer, personal communication, November 25, 2015)

Mostly we have field trips to work in the areas because doctors don’t know the people and the places in communities, so I have to help them. We are asked for help because we know people in our own area where we work
Moreover, both public health volunteers and headmen of communities share similar ideas that people should adjust their behaviors and take more care of themselves. They should take care of themselves in the primary steps when they get sick. They should search for the information from many kinds of media, especially personal media and new media before going to the doctors or public health officers. In addition, they should change their behavior to avoid getting sick like eating less oily and salty food, do exercises, and avoid smoking and drinking alcohol. However, some people realized about taking care of themselves when they are already sick or in the risky situation. Furthermore, they have more knowledge about food and diet, for example, some of them focused on eating organic food such as brown rice, vitamin rice, Homnil rice (black jasmine rice), rice berry, grilled fish, roasted fish and avoids drinking soda and sweet drinks. Moreover, herbs and alternative medicine are chosen to be the choices in treatment more such as taking herbs, traditional medicine, laurel clockvine, turmeric, herbal massage, meditation, yoga, and herbal massage treatment for women after birth delivery (Tub Moa Gluea). These medications are developed to help people to keep physical and mental balance. This is a better alternative than exclusively taking modern medicine. However, using herbs and alternative medicines were still under the doctors’ supervision and must be performed by individual with medical licenses.

Personal media are indicated to be influential for people’s behavior changing from the passive audience to active one. It was of the most important factors in attitude and behavior change. Public health officers in hospitals, health centers, sub-district administrative organization, sub-district health promotion hospitals, and officers of public health and environment organization of municipality including headmen like Deputy Chief Executive of Mayor and Chief Executive of the SAO are considered to be “the first senders” according to the “Two Steps Flow Theory.” Headmen in the public sector are presented to be the ones who take the important roles in performing healthcare by themselves. Training courses are provided for them. Strong support is provided in health communication to headmen in
doing projects and activities including being the network members with the officers. As a result, the headmen and public health officers who take part in the projects are satisfied and proud of their potential. In addition, these people are more active in transferring the knowledge to the rest of the community. Besides, they can assist the public health officers in easy tasks such as blood pressure measurement, blood drawing, wound dressing as well as giving some advice to people who get treatment and others.

Moreover, people are eager to learn by themselves, especially from new media. They are willing to participate in training courses and they have public mind in working for communities. Furthermore, personal media offer answers to questions, feedback, and they can exchange their ideas immediately. In addition, headmen in the public sector understand the importance of health supporting in their own community and get more people in the network. People in other communities take part in being public health volunteers, volunteers, and elderly care volunteers. Also children and youth can be a part of health communication by becoming child health volunteers, and take parts in children and youth council.

In some areas, public health volunteers perform good communication. As a result they can gather groups of children who used to follow their parents and grandparents to the public health volunteer meeting to realize the importance of health care since they are young. The team is formed to solve their problems. It is the “children and youth council” which gives knowledge and perform activities about AIDS and drugs in communities. The communities are absolutely strengthened by participation from all sectors.

Moreover, public health volunteers and headmen also have a role as “opinion leaders” for the communities. The opinion leaders are trained by public health officers especially, the elderly who always persuade others to do exercises or participate health projects or activities to be healthy, not to be depressed and to socialize so that they feel refreshed. It makes them feel that they are the part, which strengthens health in communities. In addition, people change their point of views and they believe that the public sector like headmen, public health volunteers, and patients including their relatives and family can be the leaders on health communication in communities. It is not limited to the public health officers, but
everyone can participate in health communication equally as mentioned in the following quote:

Wan Son Pit Project (diabetes prevention campaign) is held and conducted by Doctor Moo. This project was developed by surveying eating habits of people in the community. The research revealed how they eat sweets, green tea, soda, and energy drinks. In the meantime, the amount of sugar they consumed when they drank these kinds of drinks is presented on a chart. After knowing that they consume too much sugar, they are suggested to do exercises. In the case of elderly people who have the major depression disorder, we try to encourage them to do aerobic dance, do exercises, and adapt themselves to the society to avoid loneliness. (Phra Nakhon Sri Ayutthaya Public Health Volunteer, personal communication, October 29, 2015)

Moreover, headmen and public health volunteers have evolved to be active audiences in formal communication through consultation, dialogue, and asking and answering questions. For instance the models of media are presented in the meetings to ask headmen and public health volunteers for their opinions. These people are the representatives, who give feedback to senders. One example of feedback involves brochures that have too many difficult details with a few pictures. As a consequence the recommendation is to add more colorful pictures and adjust the size of the fonts and the size of the pictures.

Because there are a lot of people in the district, it is less likely for community people to participate with all activities. Headmen, public volunteers, and the public have a role as active receivers as well as media producers. They deal with media activities such as plan writing and project, activity holding, and field trips. At the same time they tell others about how they can cure sickness or become the leaders of activities. In addition, opportunities are provided to children in the “children and youth council” to present health news through radio broadcast and news station about safe sex campaign and drugs. This is obviously direct participatory communication of people in communities. This is shown in the following quotes:
Media samples are presented in the monthly meetings of village health volunteers to check people’s understanding. We ask questions such as “Do you understand?” “Is the font big enough?” so that the volunteers can transfer knowledge to the community as a whole. Sometimes they use the words that are easy to understand, but there are too many details like the detail of hand foot and mouth disease and MERS. They are informed to summarize the details and focus on our comments. (Bang Yai Public Health Volunteer, personal communication, September 15, 2015)

The chances are always provided for the public sector. When the public health officers are invited to be lecturers in the meetings or activities, we are asked for help to be their assistants every times. We help in presenting about healthcare like how to deal with the diabetes and high blood pressure. (Phra Nakhon Sri Ayutthaya Public Health Volunteer, personal communication, November 22, 2015)

Regarding paralyzed people we assist them in doing exercise. The ones who recovered are the models for others. Later they can talk to each other. This makes it obviously clear that the project really works. For example, we created a field trip for the team and sometimes I visit them at their houses by motorcycle. Also I sometimes greet their relatives. (Bang Yai Public Health Volunteer, personal communication, September 15, 2015)

The chairman of children and youth council is invited to join our meetings. They are allowed to present their activities through radio broadcast like AIDS prevention and disadvantages of drugs. The children council is established by safe sex campaign. We persuade children, who follow their parents and relatives, who were village health volunteers to join activities. After they have participated in the activities many times, the children council was formed. (Nong Sua Public Health Volunteer, personal communication, November 25, 2015)

Furthermore, some people of public health volunteers and headmen take part in being the planners such as in writing community health plans and activities to ask the local government of the budget. During these phase they are
supported and helped by officers from public health organization or local administrative organization as mentioned:

We would talk to each other and headmen would be the village public health volunteers. We write up the project plan and they know that all our needs come from the communities. The trainers from public health organization and sub-district health promotion hospital are provided. We are given suggestions and assistance until our work is complete. (Bang Yai Public Health Volunteer, personal communication, September 15, 2015)

Prior to plan writing, we talk about problems we encounter and the things we want to do. This is far better than doing thing we are told to do. And we are proud that the success is from our own potential. So people are absolutely able to join projects and activities. (Bung Ba Sub-district Administrative Officer, personal communication, Ocber 25, 2015)

4.2.2.5 Community Context Factors

According to the in-depth interview, it was found that the community contexts, which resulted in health behaviors of the community, could be divided into two behaviors by “different contexts of health situation.” 1) The first aspect is health behavior in unusual condition. The researcher found a common aspect between the two health paradigms namely “Health Education Paradigm and Health Promotion Paradigm.” These two paradigms share mutual practices. That is to say people have to depend on public health officials during the unusual community situation. For example, in the health crisis like epidemic diseases, re-emerging disease or emerging disease in the community or when people in the community have the dreaded disease, they have to follow the advice from the public health officials and cooperate with them in accordance with the way of “Health Education Paradigm”. Moreover, regarding the situations in which it is likely to have epidemic diseases in the community or in case of people in the community who start to have the risky health behavior, the public health officials focus on promoting people to “prevent” rather than “to cure” such as wearing the mask to prevent the respiratory infection, getting vaccination against the diphtheria, tuberculosis, and influenza, screening of diabetes
and high blood pressure, heart disease and breast cancer in accordance with “Health Promotion Paradigm.” However, 2) the health behavior in the normal condition is performed in normal situations of the community. Individuals are active in taking care of their own health since they are still healthy. They are always encouraged to keep their health strong through working out, having healthy food, and avoiding too sweet, oily, and salty food in order to prevent themselves from getting sick. In addition, the individuals probably use alternative medicine such as herbal remedies, massage, sauna, acupuncture, meditation, and so on. Indeed, they should always be ready if there was a health crisis according to “Health Communication Paradigm”. The following quotes illustrate this point.

There were seven to eight patients of Dengue in three months but no one died. I had to rush to the area. The information of epidemiology was sent from the hospital. The preparation to contact provincial public health organization, hospital, and district public health organization was provided for the team by explaining the situation, planning activities, campaigning, providing abate sand granules, visiting houses, and providing thermal fog generator. These things were done for people in community. (Phra Nakhon Sri Ayutthaya District Public Health Officer, personal communication, October 22, 2015)

Before publishing brochures or planning activities, we have monthly meetings with community public health volunteers and headmen. The models were presented to ask for their opinions about the details like the sizes and the fonts of brochures. We checked that they understood them or not, so we would like to get feedback in order to adjust them. (Sao Thong Hin Sub-district Hospital Officer, personal communication, September 15, 2015)

When there is no epidemic incident, the community is ready by promoting people’s health. They are encouraged to keep fit to avoid illness, so we would be able to handle the crisis. That is to say we must be careful. (Phra Nakhon Sri Ayutthaya Hospital Officer, personal communication, October 22, 2015)
In this part was found there were five communication factors: 1) Sender factor, 2) Message factor, 3) Channel factor, 4) Receiver factor, and 5) Social context factor enhancing the success stories of three communities in health communication operations. A summarization of the findings are illustrated in Table 4.2 as follows:
Table 4.2 Summary of the Major Factors That Lead to the Success Stories of Communities in Health Communication

<table>
<thead>
<tr>
<th>Sender Factor</th>
<th>Message Factor</th>
<th>Channel Factor</th>
<th>Receiver Factor</th>
<th>Social Context Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health senders extend their viewpoints toward other sectors to be health communication leaders and emphasized on participating in health communication operations.</td>
<td>Variety of purposes for exhibiting health care messages conforming to the requirements of locals</td>
<td>Integration of various types of media in community and employed participatory communication within network</td>
<td>Active role of locals in order to be a part of health communicators</td>
<td>Community health situation affecting the difference of health behavior</td>
</tr>
<tr>
<td>- Public health officers gave opportunity to other sectors to participate in health communication operations.</td>
<td>- Health messages conform to locals’ taste including social and cultural context.</td>
<td>- Integration of media in community including community media, activity media, specialized media, new media, and personal media.</td>
<td>- Locals strengthened their health since they were still healthy.</td>
<td>- Health behavior in the unusual situation during health crisis such as the spread of communicable diseases or re-emerging infectious diseases, locals had to obey instruction of public health officers.</td>
</tr>
<tr>
<td>- Public sector leaders including community leader, public health volunteers, or recovered patients willingly participated in health operations as content presenters.</td>
<td>- Health message focused on how to remedy illness.</td>
<td>- Two-way and participatory communications within the network</td>
<td>- Locals participated in health communication operations more than the past.</td>
<td>- Health behavior in normal situation, locals were active in self-care when they were still healthy and preferred to stay fit by exercising.</td>
</tr>
<tr>
<td></td>
<td>- Health message focused on health prevention.</td>
<td>- Health message focused on health promotion.</td>
<td>- Locals, especially the elderly acted as opinion leaders related to health promotion.</td>
<td></td>
</tr>
</tbody>
</table>
From Table 4.2 it can be seen that the major factors that lead to the success stories of communities in health communication can be classified into five factors according to Concept of Communication Components. The first factor is “Health senders extended their viewpoints toward other sectors, e.g. local administrative sector and public sector to be health communication leaders. The emphasis is on participating in health communication operations”. The second factor is “Variety purposes for exhibiting messages conforming to the requirements of locals such as message focused on consistency with community’s need in both social and cultural context, awareness of health threats, protection, health promotion, and how to remedy the illness”. The third factor is “Integration of various types of media in community, e.g. community media, personal media, specialized media, new media, and activity media employing participatory communication within the network”. The fourth factor is “Active role of public sector related to care their health since they were still healthy”. People are encouraged to participate in health communication operations, and shift their role in order to be health sender. And finally, the fifth factor is “Community health situation affecting the difference of health behavior”. During health crisis such as the spread of communicable diseases or re-emerging infectious diseases, locals have to obey instruction of public health officers. In addition the locals were active in self-care when they were still healthy and preferred to stay fit by exercising in the normal situation”. 
CHAPTER 5

QUANTITATIVE RESULTS

In this part, the researcher has classified the presentation of quantitative results into three sections in accordance to the research objectives. These included the development and validation of the congruence of the measurement model and the development of the structural equation model of communication factors for health communication of community with empirical data. Part I is the analysis of qualitative results together with revision of concepts, theories, and related literature in order to improve and the Structural Equation Model of Communication Factors for Health Communication of Community. Part II is the descriptive statistical analysis while Part III is the inferential statistical analysis. The details are described as follows:

5.1 Part I: The Analysis of Qualitative Results together with the Revision of Concepts, Theories, and Related Literature in order to Improve and Develop the Structural Equation Model of Communication Factors for Health Communication of Community

The Structural Equation Model of Communication Factors for Health Communication of Community is derived from the synthesis of qualitative results obtained from the in-depth interviews of key informants, who were involved in community health communication operations. This was done together with the revision of concepts, theories, and related literature. It is found that “Communication factors” including “Media in community” such as personal media, mass media, specialized media, community media, activity media, and new media together with health communicator’s skill, knowledge, and positive attitude toward community health communication and locals, including consideration of social and cultural context of health communicator were the casual variables which influenced health
behavior of community. The variables can be explained as follows: 1) Health education paradigm: Locals still would appeal for aid when they have the symptoms of illness; 2) Health promotion paradigm: Focus on “prevention” more than “remedy” for instance vaccination for tetanus prevention, screening for diabetes, blood pressure, and breast cancer. In addition public health officers gave a chance to community leaders and public health volunteers to express their opinions via a conference; and 3) Health communication paradigm: All sectors in the community chose to obtain information (both seek and expose) in order to enhance and strengthen their health. Likewise, they emphasized on caring for their health when they were healthy rather than waiting to do so after they got ill. Furthermore, communication factors still had a direct effect on Community satisfaction in terms of acquiring health communication information with regards to obtaining information, knowledge and advice related to health promotion. Gaining health information consists of the community’s taste and needs that had a direct effect on Participatory communication in community health communication. This includes sharing their opinions and responding to demands, shifting roles as sender and content exhibitor by becoming experts to exhibit how to recover, do presentation via wire broadcasting, acting on behalf of the planner or determiner, and drafting community or health plan to request a budget to engage in activities to influence the health behavior of the community.

Furthermore, the researcher discovered a new latent variable: “Role of personal media in order to be health communication leader in community”. This arose from the expansion of community health communication towards the public sector and satisfaction from acquiring health information from media in community. These were important transformations in order to drive other sectors, which were interested in community health communication. This results in the enthusiasm to participate as “Health communication leader” to develop health behavior of community from various sectors including public health officers, community leader, public health volunteer, recovered patient, and patient care taker. In addition the research reduced the observed variables of health behavior of community variable (HEALTH BEHAVIOR) from three observed variables to two observed variables, namely 1) Health behaviour in unusual situation and 2) Health behavior in normal situation. This is done by combining health education and health promotion paradigms in the same
observed variables. The decision was made because these paradigms still had a crucial role to public health officers, especially during the outbreak or emergency case. In the meantime the health communication paradigm frequently used in the normal situation. Each sector had to promote and care for their health so that individuals did not get ill and are able to cope with crisis conditions in the future.

In regards to the synthesis of qualitative results obtained from the in-depth interview of key informants, who were involved in community health communication operations. This is done together with revision of concepts, theories, and related literature in order to develop and validate the Structural Equation Model and questions in the questionnaire. The Quantitative method suited the actual context of study (as shown in Figure 5.1). The communication factor (COMMUNICATION) had positive direct effect and indirect effect on health behavior of community variable (HEALTH BEHAVIOR) through three intermediate variables, namely, community satisfaction in regards to acquiring health communication information variable (SATISFACTION), participatory communication in community health communication variable (PARTICIPATION), and role of personal media in order to be health communication leader in community variable (HEALTH LEADER). This led to the discovery of a new latent variable from Qualitative method. Consequently, each intermediate variable also influenced each other as shown in Figure 5.1 together with observed variables of each latent variable, as shown in Table 5.1. These relationships are derived from the synthesis of qualitative results combined with reviewing of concepts, theories, and related literature.
Figure 5.1  Structural Equation Model of Communication Factors for Health Communication of Community—the Development and Validation from Qualitative Results Together with Revision of Concepts, Theories, and Related Literature

Table 5.1  Observed Variables of Each Latent Variable

<table>
<thead>
<tr>
<th>Latent Variables (Long and Short Titles)</th>
<th>Observed Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Communication factors (COMMUNICATION)</td>
<td>1. Frequency of media exposure in community</td>
</tr>
<tr>
<td></td>
<td>2. Skill and knowledge of sender towards health communication</td>
</tr>
<tr>
<td></td>
<td>3. Attitude of sender towards receiver and health communication content</td>
</tr>
<tr>
<td></td>
<td>4. Sender’s consideration of social and cultural context of communicate health issues</td>
</tr>
<tr>
<td>Latent Variables (Long and Short Titles)</td>
<td>Observed Variables</td>
</tr>
<tr>
<td>----------------------------------------</td>
<td>--------------------</td>
</tr>
</tbody>
</table>
| 2. Community satisfaction in regards to acquiring health communication information (SATISFACTION) | 1. Obtaining information, knowledge and advice related to health promotion  
2. Obtaining health information consistent with community’s taste and needs  
3. Two-way and participatory communication in health communication  
4. Observing a proper model from health senders |
| 3. Role of personal media in order to be health communication leader in community (HEALTH LEADER) | 1. Role in being a role model for health promotion  
2. Role in supporting health activities  
3. Role in public hearing and having a public mind in health operations  
4. Role in educating and inspiring health promotion |
| 4. Participatory communication in community health communication (PARTICIPATION) | 1. Three levels of community participation  
2. Health information exchange is beneficial to all stakeholders  
3. Equality in health communication from all people and agencies  
4. Decentralization of health content from public health officers to all stakeholders |
| 5. Health behavior of community (HEALTH BEHAVIOR) | 1. Health behavior in unusual situations  
2. Health behavior in normal situations |
### 5.2 Part II: Descriptive Statistical Analysis

**Table 5.2** Frequency and Percentage Classification of Respondents’ Demographic Characteristics

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>167</td>
<td>41.8</td>
</tr>
<tr>
<td>Female</td>
<td>233</td>
<td>58.3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>400</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower than 20 Years</td>
<td>15</td>
<td>3.8</td>
</tr>
<tr>
<td>21 - 35 Years</td>
<td>122</td>
<td>30.5</td>
</tr>
<tr>
<td><strong>36 - 50 Years</strong></td>
<td><strong>161</strong></td>
<td><strong>40.3</strong></td>
</tr>
<tr>
<td>51 - 65 Years</td>
<td>93</td>
<td>23.3</td>
</tr>
<tr>
<td>More than 65 Years</td>
<td>9</td>
<td>2.3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>400</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Educational Level</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elementary education</td>
<td>53</td>
<td>16.3</td>
</tr>
<tr>
<td>Middle School</td>
<td>39</td>
<td>9.8</td>
</tr>
<tr>
<td>High School/ Vocational education</td>
<td>51</td>
<td>12.8</td>
</tr>
<tr>
<td>Diploma/ Associated degree</td>
<td>40</td>
<td>10.0</td>
</tr>
<tr>
<td><strong>Bachelor’s degree</strong></td>
<td><strong>183</strong></td>
<td><strong>45.8</strong></td>
</tr>
<tr>
<td>Higher than Bachelor’s degree</td>
<td>22</td>
<td>5.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>400</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Occupation/ Subordinated Agencies</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Public health officer</strong></td>
<td><strong>114</strong></td>
<td><strong>28.5</strong></td>
</tr>
<tr>
<td>Local administrative officer</td>
<td>31</td>
<td>7.8</td>
</tr>
<tr>
<td>Provincial government officer/ School/ State enterprises officer/ and Other government agencies</td>
<td>31</td>
<td>7.8</td>
</tr>
<tr>
<td>Public health volunteer and Community leader</td>
<td>87</td>
<td>21.8</td>
</tr>
<tr>
<td>Private sector officer/ Entrepreneur</td>
<td>55</td>
<td>13.8</td>
</tr>
<tr>
<td>Student</td>
<td>30</td>
<td>7.5</td>
</tr>
<tr>
<td>Other</td>
<td>52</td>
<td>13.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>400</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>
Table 5.2 (Continued)

<table>
<thead>
<tr>
<th>Average Income per Month</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower than 10,000 Baht</td>
<td>108</td>
<td>27.0</td>
</tr>
<tr>
<td>10,001 - 20,000 Baht</td>
<td>153</td>
<td>38.3</td>
</tr>
<tr>
<td>20,001 - 30,000 Baht</td>
<td>97</td>
<td>24.3</td>
</tr>
<tr>
<td>30,001 - 40,000 Baht</td>
<td>26</td>
<td>6.5</td>
</tr>
<tr>
<td>More than 40,000 Baht</td>
<td>16</td>
<td>4.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>400</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

From Table 5.2, the analysis of demographic characteristics can be summarized as highlighted in the following section:

More than half of the respondents were female (58.3%), while almost half of respondents were between 36-50 years old (40.3%), followed by 21-35 years old (30.5%) and nearly half as well owned a bachelor’s degree (45.8%). In terms of occupation, respondents were mostly public health officers (28.5%), followed by public health volunteers and community leaders (21.8%). Finally, most respondents earned between 10,001-20,000 baht on average per month (38.3%), followed by 10,000 baht or below (27.0%).

5.2.1 Communication Factors

1) Frequency of Media Exposure Related to Health Communication Information

Table 5.3 Frequency of Media Exposure Related to Health Communication Information

<table>
<thead>
<tr>
<th>Media in Community</th>
<th>Frequency of Media Exposure</th>
<th>( \bar{x}/ ) Interpretation</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Lowest</td>
<td>Low</td>
<td>Medium</td>
</tr>
<tr>
<td>1. Personal media who are public health officers, for example 1) Provincial health officers, 2) District health officers,</td>
<td>6</td>
<td>10</td>
<td>97</td>
</tr>
</tbody>
</table>

1. Personal media who are public health officers, for example 1) Provincial health officers, 2) District health officers,
Table 5.3 (Continued)

<table>
<thead>
<tr>
<th>Media in Community</th>
<th>Frequency of Media Exposure</th>
<th>$\bar{x}$/ S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>3) Physicians, 4) Nurses, 5) Hospital officers, and 6) Sub-district hospital officers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Personal media who are municipal officer and sub-district administrative officers</td>
<td>7 (1.8) 31 (7.8) 137 (34.3) 134 (33.5) 91 (22.8) (High) .967</td>
<td></td>
</tr>
<tr>
<td>3. Personal media who work in government agencies and school, for example 1) Chief district officers, 2) Deputy district chiefs, 3) Officers of the Ministry of Social Development and Human Security, and 4) teachers</td>
<td>16 (4.0) 44 (11.0) 161 (40.3) 132 (33.0) 47 (11.8) (Medium) .965</td>
<td></td>
</tr>
<tr>
<td>4. Personal media who are health communication leaders in the public sector, for example 1) Public health volunteers, 2) Community leaders, 3) Junior public health volunteers, and 4) Philosopher villagers</td>
<td>3 (0.8) 15 (3.8) 123 (30.8) 137 (34.3) 122 (30.5) (High) .907</td>
<td></td>
</tr>
<tr>
<td>5. Personal media who are Non-Governmental Organizations (NGOs)</td>
<td>63 (15.8) 67 (16.8) 196 (49.0) 56 (14.0) 18 (4.5) (Medium) 1.028</td>
<td></td>
</tr>
<tr>
<td>6. Other personal media who are district agricultural extension officers</td>
<td>0 (0.0) 1 (0.3) 0 (0.0) 0 (0.0) 0 (Low) -</td>
<td></td>
</tr>
<tr>
<td>7. Community media for example 1) wire broadcasting, 2) community radio, 3) community television, 4) sub-district and village level community health conference, 5)</td>
<td>3 (0.8) 36 (9.0) 125 (31.3) 173 (43.3) 63 (15.8) (High) .993</td>
<td></td>
</tr>
</tbody>
</table>
Table 5.3 (Continued)

<table>
<thead>
<tr>
<th>Media in Community</th>
<th>Frequency of Media Exposure</th>
<th>( \bar{x} )/ Interpretation</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Lowest</td>
<td>Low</td>
<td>Medium</td>
</tr>
<tr>
<td>Coffeehouse forum, 6) doing tom-tom craft and antique basketry, and 7) displaying Thai-style antiphon</td>
<td>19</td>
<td>30</td>
<td>131</td>
</tr>
<tr>
<td>Mass media for example television and newspaper</td>
<td>(4.8)</td>
<td>(7.5)</td>
<td>(32.8)</td>
</tr>
<tr>
<td>Activity media for example 1) conference, 2) giving instructions, 3) drafting community health plan, 4) screening for diabetes, blood pressure, and breast cancer tests, 5) group exercise, and 6) joining as public health volunteer in “Home-bound and bed-bound patients visit network”, “Prevention and resolution of traffic accident network”, and “Control of alcohol intake network”</td>
<td>16</td>
<td>24</td>
<td>75</td>
</tr>
<tr>
<td>Specialized media for example brochure and pamphlet, 2) writing message in A4 paper, 3) warning letter, 4) academic book, 5) poster and vinyl 6) warning sign for traffic, 7) sticker, 8) calendar, 9) car news, and 10) 3D media</td>
<td>(4.0)</td>
<td>(6.0)</td>
<td>(18.8)</td>
</tr>
<tr>
<td>New media for example 1) Website, 2) Search engines such as Google and Yahoo, 3) E-mail, and 4) Applications such as Line, Facebook, and Youtube</td>
<td>16</td>
<td>24</td>
<td>75</td>
</tr>
<tr>
<td>(4.0)</td>
<td>(6.0)</td>
<td>(18.8)</td>
<td>(38.5)</td>
</tr>
<tr>
<td>Overall Mean Score</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
From Table 5.3 it can be explained that generally, the respondents were exposed to media in community related to health communication information at a high level. The overall mean score was 3.49. When considered in detail it is found that respondents were exposed to “Personal media who are public health officers” the most. This is followed by “Personal media, who are health communication leader of public sector”; “New media”; and subsequently “Activity media”. However, media in community that respondents were exposed to in low level was “District Agricultural Extension Officer”.

2) Providing Health Communication Information by Media in Community

**Table 5.4** Level of Agreement with Providing Health Communication Information by Media in Community

<table>
<thead>
<tr>
<th>Providing health communication information of media in community</th>
<th>Level of Agreement</th>
<th>( \bar{x}/ ) Interpretation</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Strongly disagree</td>
<td>Disagree</td>
<td>Neutral</td>
</tr>
<tr>
<td>1. Media in the community help him/her realize the importance of health care for both physical and mental strength.</td>
<td>2</td>
<td>7</td>
<td>119</td>
</tr>
<tr>
<td>2. Media in the community are able to transmit health communication message that can be easily understood.</td>
<td>2</td>
<td>12</td>
<td>127</td>
</tr>
<tr>
<td>3. Public health officer, public health volunteer, and recovered patient have good health communication knowledge.</td>
<td>4</td>
<td>15</td>
<td>105</td>
</tr>
<tr>
<td>4. Media in community help him/her have knowledge and understand how to care and improve his/her health.</td>
<td>5</td>
<td>11</td>
<td>119</td>
</tr>
</tbody>
</table>
Table 5.4 (Continued)

<table>
<thead>
<tr>
<th>Providing health communication information of media in community</th>
<th>Level of Agreement</th>
<th>( \bar{x} )/ Interpretation</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Strongly disagree</td>
<td>Disagree</td>
<td>Neutral</td>
</tr>
<tr>
<td>5. Media in community the help him/her strengthen his/her health since he/she is still healthy.</td>
<td>4</td>
<td>15</td>
<td>133</td>
</tr>
<tr>
<td>6. Municipal officer and sub-district administrative officer who emphasize community health communication will make locals see the importance of better health care.</td>
<td>3</td>
<td>15</td>
<td>142</td>
</tr>
<tr>
<td>7. Municipal officer and sub-district administrative officer who emphasize community health communication will make locals better participate in health communication project or activity.</td>
<td>2</td>
<td>16</td>
<td>127</td>
</tr>
<tr>
<td>8. Media in community emphasize operations in relation to health communication project or activity.</td>
<td>2</td>
<td>13</td>
<td>127</td>
</tr>
<tr>
<td>9. Poster, brochure, pamphlet, and activity are designed correspondingly to health risk circumstances of community.</td>
<td>9</td>
<td>21</td>
<td>110</td>
</tr>
<tr>
<td>10. Poster, brochure, pamphlet, and activity are designed media form and content derived from locals’ needs.</td>
<td>11</td>
<td>17</td>
<td>127</td>
</tr>
</tbody>
</table>

**Overall Mean Score** 3.94 (Agree)
Table 5.4 shows that generally, the respondents agreed with providing health communication information by media in community. The overall mean score was at 3.94. When considered in detail it is found that respondents agreed that “Media in community help him/her realizing the importance of health care both physical and mental strength” the most. This is followed by “Public health officer, public health volunteer, and recovered patient have health communication knowledge well”. The next was “Media in community help him/her having knowledge and understanding to care and promote his/her health”.

5.2.2 Role of Personal Media in order to Be Health Communication Leader in Community

Table 5.5 Level of Agreement with Role of Personal Media in order to Be Health Communication Leader in Community

<table>
<thead>
<tr>
<th>Role of personal media in order to be health communication leader in community</th>
<th>Level of Agreement</th>
<th>z/ Interpretation</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly disagree</td>
<td>Disagree</td>
<td>Neutral</td>
<td>Agree</td>
</tr>
<tr>
<td>1. Health communication leader can be any person not only public health officers, but also community leader, public health volunteer, recovered patient, and patient care taker.</td>
<td>1</td>
<td>14</td>
<td>93</td>
</tr>
<tr>
<td></td>
<td>(0.3)</td>
<td>(3.5)</td>
<td>(23.3)</td>
</tr>
<tr>
<td>2. Public health officer, public health volunteer, and recovered patient always care and strengthen their health and can be a role model of health promotion.</td>
<td>3</td>
<td>15</td>
<td>96</td>
</tr>
<tr>
<td></td>
<td>(0.8)</td>
<td>(3.8)</td>
<td>(24.0)</td>
</tr>
<tr>
<td>3. Public health officer, public health volunteer, and recovered patient receive the cooperation from public health agencies, local administration agencies, including various health network both within and outside the community.</td>
<td>2</td>
<td>14</td>
<td>111</td>
</tr>
<tr>
<td></td>
<td>(0.5)</td>
<td>(3.5)</td>
<td>(27.8)</td>
</tr>
</tbody>
</table>
Table 5.5  (Continued)

<table>
<thead>
<tr>
<th>Role of personal media in order to be health communication leader in community</th>
<th>Level of Agreement</th>
<th>( \bar{x} )/ Interpretation</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Strongly disagree</td>
<td>Disagree</td>
<td>Neutral</td>
</tr>
<tr>
<td>4. Public health officer, public health volunteer, and recovered patient participate in projects, activities, or network related to community health communication.</td>
<td>4</td>
<td>13</td>
<td>120</td>
</tr>
<tr>
<td>5. Public health officer, public health volunteer, and recovered patient can suitably give useful information and suggestions related to health care and prevention to locals.</td>
<td>4</td>
<td>13</td>
<td>118</td>
</tr>
<tr>
<td>6. Public health officer, public health volunteer, and recovered patient can communicate in order to make locals aware of the importance of caring and strengthening their health.</td>
<td>2</td>
<td>9</td>
<td>111</td>
</tr>
<tr>
<td>7. Public health officer, public health volunteer, and recovered patient open the opportunity to locals to respond their needs and listen their opinions during conferences, doing activities, or talking in daily life.</td>
<td>0</td>
<td>17</td>
<td>118</td>
</tr>
<tr>
<td>8. Public health officer, public health volunteer, and recovered patient have willingness to work related to health communication for the public benefit.</td>
<td>1</td>
<td>21</td>
<td>109</td>
</tr>
</tbody>
</table>

Overall Mean Score 4.06 (Agree)
Table 5.5 shows that generally, the respondents agreed with the role of personal media in order to be health communication leader in community. The overall mean score was at 4.06. When considered in detail it is found that respondents agreed that “Health communication leader can be any persons not only public health officers, but also community leader, public health volunteer, recovered patient, and patient care taker” the most. This is followed by “Public health officer, public health volunteer, and recovered patient always care and strength their health and can be a role model of health care”, and subsequently “Public health officer, public health volunteer, and recovered patient can communicate in order to make locals aware of the importance of caring and strengthening their health”.

5.2.3 Community Satisfaction in Regards to Acquiring Health Communication Information

Table 5.6 Level of Community Satisfaction in Regards to Acquiring Health Communication Information

<table>
<thead>
<tr>
<th>Satisfaction</th>
<th>Level of Satisfaction</th>
<th>Interpretation</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. General satisfaction towards design of community health communication media</td>
<td>Lowest 5 (1.3) Low 22 (5.5) Neutral 122 (30.5) High 128 (32.0) Highest 123 (30.8)</td>
<td>3.86/High (3.86)</td>
<td>.962</td>
</tr>
<tr>
<td>2. General satisfaction towards design of community health communication messages</td>
<td>Lowest 4 (1.0) Low 20 (5.0) Neutral 138 (30.5) High 123 (30.8) Highest 115 (28.8)</td>
<td>3.81/High (3.81)</td>
<td>.943</td>
</tr>
<tr>
<td>3. Satisfaction towards public health officer, public health volunteer, and recovered patient in relation to be a role model of health promotion</td>
<td>Lowest 5 (1.3) Low 13 (3.3) Neutral 104 (26.0) High 160 (40.0) Highest 118 (29.5)</td>
<td>3.92/High (3.92)</td>
<td>.892</td>
</tr>
<tr>
<td>4. Satisfaction towards moderator, or presenter in relation to present attractive health communication message and can be a role model of health promotion</td>
<td>Lowest 3 (0.8) Low 17 (4.3) Neutral 125 (31.3) High 122 (30.5) Highest 133 (33.3)</td>
<td>3.91/High (3.91)</td>
<td>.937</td>
</tr>
</tbody>
</table>
Table 5.6 (Continued)

<table>
<thead>
<tr>
<th>Satisfaction</th>
<th>Level of Satisfaction</th>
<th>Mean Interpretation</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. Satisfaction towards various health communication information corresponding to community situation and locals’ taste</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lowest (2)</td>
<td>Low (17)</td>
<td>Neutral (117)</td>
</tr>
<tr>
<td>6. Satisfaction towards health communication information in relation to help reminding what he/she has ever known before</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lowest (4)</td>
<td>Low (13)</td>
<td>Neutral (119)</td>
</tr>
<tr>
<td>7. Satisfaction towards obtaining up-to-date and timely health communication information, i.e. emerging disease, recurring disease, or production of new vaccine.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lowest (4)</td>
<td>Low (12)</td>
<td>Neutral (106)</td>
</tr>
<tr>
<td>8. Satisfaction towards health communication information in relation to acquisition new health knowledge that he/she has never known before.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lowest (5)</td>
<td>Low (14)</td>
<td>Neutral (102)</td>
</tr>
<tr>
<td>9. Satisfaction towards health communication information and suggestions that help them to care his/her health more than in the past.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lowest (5)</td>
<td>Low (8)</td>
<td>Neutral (103)</td>
</tr>
<tr>
<td>10. Satisfaction towards exchanging health communication information to others and be able to help them caring his/her health more than in the past.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lowest (6)</td>
<td>Low (15)</td>
<td>Neutral (117)</td>
</tr>
<tr>
<td>11. Satisfaction towards being an initiator of activity or project in relation to promote locals’ health.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lowest (10)</td>
<td>Low (21)</td>
<td>Neutral (130)</td>
</tr>
</tbody>
</table>
Table 5.6 (Continued)

<table>
<thead>
<tr>
<th>Satisfaction</th>
<th>Level of Satisfaction</th>
<th>z/ Interpretation</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>12. Satisfaction towards locals perceive his/her potential in relation to operate health communication task</td>
<td>Lowest 9 (2.3)  Low 37 (9.3) Neutral 110 (27.5) High 110 (27.5) Highest 134 (33.5)</td>
<td>3.81/ High</td>
<td>1.072</td>
</tr>
<tr>
<td>13. Satisfaction towards being a moderator or content exhibitor in relation to community health communication</td>
<td>Lowest 13 (3.3) Low 18 (4.5) Neutral 115 (28.8) High 136 (34.0) Highest 118 (29.5)</td>
<td>3.82/ High</td>
<td>1.013</td>
</tr>
<tr>
<td>14. Satisfaction towards integrating with the community in relation to operate health communication task</td>
<td>Lowest 11 (2.8) Low 17 (4.3) Neutral 101 (25.3) High 140 (35.0) Highest 131 (32.8)</td>
<td>3.91/ High</td>
<td>.996</td>
</tr>
<tr>
<td>15. Satisfaction towards acquiring health communication information instantly through exchanging opinions and questioning</td>
<td>Lowest 9 (2.3) Low 21 (5.3) Neutral 118 (29.5) High 123 (30.8) Highest 129 (32.3)</td>
<td>3.86/ High</td>
<td>1.006</td>
</tr>
<tr>
<td>16. Satisfaction towards the person with whom they coordinate listen his/her feedbacks in relation to health communication operations.</td>
<td>Lowest 12 (3.0) Low 23 (5.8) Neutral 105 (26.3) High 130 (32.5) Highest 130 (32.5)</td>
<td>3.86/ High</td>
<td>1.034</td>
</tr>
<tr>
<td><strong>Over All Mean Score</strong></td>
<td></td>
<td></td>
<td><strong>3.90</strong> (High)</td>
</tr>
</tbody>
</table>

Table 5.6 shows that generally, the respondents were in high level of satisfaction in regards to acquiring health communication information; overall mean score was at 4.06. When considered in detail it is found that respondents were satisfied that “Satisfaction toward health communication information and suggestions that help them to care their health more than the past” the most. This is followed by “Satisfaction toward obtaining up-to-date and timely health communication information, such as emerging disease, recurring disease, or production of new vaccine”. Next were “Satisfaction toward health communication information in relation to acquirement new health knowledge that they have never known before”
and “Satisfaction toward exchanging health communication information to others and be able to help them caring their health more than in the past”.

### 5.2.4 Participatory Communication in Community Health Communication

#### Table 5.7 Level of Participatory Communication in Community Health

<table>
<thead>
<tr>
<th>Participatory Communication</th>
<th>Level of Participatory Communication</th>
<th>(\bar{x})/ Interpretation</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Acquisition of health communication information from media in community.</td>
<td>Lowest 3 Low 18 Neutral 128 High 154 Highest 97</td>
<td>3.81/ (High) .881</td>
<td></td>
</tr>
<tr>
<td>2. Having an opportunity to express opinions with public health officers and other locals in relation to health communication.</td>
<td>Lowest 7 Low 42 Neutral 124 High 117 Highest 110</td>
<td>3.70/ (High) 1.038</td>
<td></td>
</tr>
<tr>
<td>3. Having an opportunity to share opinions in relation to design of poster, brochure, sticker, cloth, vinyl, including messages within these media.</td>
<td>Lowest 26 Low 38 Neutral 142 High 121 Highest 73</td>
<td>3.44/ (High) 1.093</td>
<td></td>
</tr>
<tr>
<td>4. Having an opportunity to express his/her opinions during health communication activity.</td>
<td>Lowest 24 Low 35 Neutral 116 High 133 Highest 92</td>
<td>3.59/ (High) 1.114</td>
<td></td>
</tr>
<tr>
<td>5. Having participated as a designer of poster, brochure, sticker, cloth, vinyl, including messages within these media.</td>
<td>Lowest 61 Low 51 Neutral 99 High 128 Highest 81</td>
<td>3.19/ (Neutral) 1.278</td>
<td></td>
</tr>
<tr>
<td>6. Having participated as an initiator of activity or project for health promotion.</td>
<td>Lowest 42 Low 48 Neutral 109 High 139 Highest 62</td>
<td>3.33/ (Neutral) 1.185</td>
<td></td>
</tr>
<tr>
<td>7. Having participated as a content exhibitor in activity or wire broadcasting for health promotion.</td>
<td>Lowest 39 Low 56 Neutral 128 High 109 Highest 68</td>
<td>3.28/ (Neutral) 1.187</td>
<td></td>
</tr>
</tbody>
</table>
Table 5.7 (Continued)

<table>
<thead>
<tr>
<th>Participatory Communication</th>
<th>Level of Participatory Communication</th>
<th>Interpretation</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Lowest</td>
<td>Low</td>
<td>Neutral</td>
</tr>
<tr>
<td>8. Having participated in drafting a community plan, activity, or project for health promotion.</td>
<td>50</td>
<td>55</td>
<td>107</td>
</tr>
<tr>
<td></td>
<td>12.5</td>
<td>13.8</td>
<td>26.8</td>
</tr>
<tr>
<td>9. Health communication information exchanging with public health officer and others have benefits for his/herself including being able to adapt with the community.</td>
<td>15</td>
<td>34</td>
<td>115</td>
</tr>
<tr>
<td></td>
<td>3.8</td>
<td>8.5</td>
<td>28.8</td>
</tr>
<tr>
<td>10. Having an opportunity to exchange opinions or feelings in relation to his/her family members’ illness with physicians, nurses, public health officers, or public health volunteers.</td>
<td>15</td>
<td>37</td>
<td>115</td>
</tr>
<tr>
<td></td>
<td>3.8</td>
<td>9.3</td>
<td>28.8</td>
</tr>
<tr>
<td>11. Community accepts his/her presented messages or opinions in relation to health communication during activities including talking in daily life.</td>
<td>21</td>
<td>28</td>
<td>121</td>
</tr>
<tr>
<td></td>
<td>5.3</td>
<td>7.0</td>
<td>30.3</td>
</tr>
<tr>
<td>12. Public health officer give an opportunity to every person and sector within community to be an exhibitor for health caring.</td>
<td>12</td>
<td>27</td>
<td>117</td>
</tr>
<tr>
<td></td>
<td>3.0</td>
<td>6.8</td>
<td>29.3</td>
</tr>
<tr>
<td>13. Listening to family members and relatives in relation to how to care for a patient including their limitations and needs.</td>
<td>15</td>
<td>16</td>
<td>121</td>
</tr>
<tr>
<td></td>
<td>3.8</td>
<td>4.0</td>
<td>30.3</td>
</tr>
<tr>
<td>14. Local administrative agencies, district agencies, private agencies, including public sector participate in health communication operations more than in the past.</td>
<td>19</td>
<td>35</td>
<td>124</td>
</tr>
<tr>
<td></td>
<td>4.8</td>
<td>8.8</td>
<td>31.0</td>
</tr>
</tbody>
</table>

Overall Mean Score 3.58 (High)
Table 5.7 shows that generally, the respondents were in high level of participatory communication in community health communication. The overall mean score was at 3.58. When considered in detail it is found that respondents participated in “Public health officer give an opportunity to every person and sector within community to be an exhibitor for health caring” and “Listening to family members and relatives in relation to how to care for a patient including their limitations and needs” the most. This is followed by “Acquirement of health communication information from media in community”. Next was “Health communication information exchanging with public health officer and others have benefits for his/herself including being able to adapt with the community”.

5.2.5 Health Behavior of Community

Table 5.8 Level of Agreement and Practice for Health Behavior of Community

<table>
<thead>
<tr>
<th>Health Behavior</th>
<th>Level of Agreement/Practice</th>
<th>⁴/ Interpretation</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Receiving medical treatment immediately with physicians, nurses, or public health officers when he/she got a little illness.</td>
<td>Lowest 7 (1.8)</td>
<td>Low 63 (15.8)</td>
<td>Neutral 136 (34.0)</td>
</tr>
<tr>
<td>2. Health communication operation is primarily the responsibility of the public health officers.</td>
<td>65 (16.3)</td>
<td>111 (27.8)</td>
<td>122 (30.5)</td>
</tr>
<tr>
<td>3. Stress or deteriorated environment have no effect on illness.</td>
<td>86 (21.5)</td>
<td>102 (25.5)</td>
<td>119 (29.8)</td>
</tr>
<tr>
<td>4. The beginning of health care focus usually happens when one has health risks such as high blood pressure, or sugar and cholesterol exceed standard criteria, or already being ill.</td>
<td>28 (7.0)</td>
<td>49 (12.3)</td>
<td>172 (43.0)</td>
</tr>
</tbody>
</table>
Table 5.8 (Continued)

<table>
<thead>
<tr>
<th>Health Behavior</th>
<th>Level of Agreement/Practice</th>
<th>z/ Interpretation</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Lowest</td>
<td>Low</td>
<td>Neutral</td>
</tr>
<tr>
<td>5. Acquisition of instruction from public health officer outside community such as Office of Disease Prevention and Control, 1st area, Bangkok and Hospital outside community in order to prevent disease and control including strengthening his/her health.</td>
<td>16</td>
<td>41</td>
<td>104</td>
</tr>
<tr>
<td></td>
<td>(4.0)</td>
<td>(10.3)</td>
<td>(26.0)</td>
</tr>
<tr>
<td>6. Emphasis on prevention, for example, vaccination for tetanus prevention, screening diabetes, blood pressure, breast cancer, and wearing preventive mask.</td>
<td>6</td>
<td>28</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>(1.5)</td>
<td>(7.0)</td>
<td>(25.0)</td>
</tr>
<tr>
<td>7. Public health officers employ media in community to persuade locals to see the importance and participate in health communication operations.</td>
<td>10</td>
<td>28</td>
<td>105</td>
</tr>
<tr>
<td></td>
<td>(2.5)</td>
<td>(7.0)</td>
<td>(26.3)</td>
</tr>
<tr>
<td>8. Public health officers, local administrative officers, district officers, private sector, and public sector are able to administer and manage health communication network and activity as well.</td>
<td>12</td>
<td>21</td>
<td>108</td>
</tr>
<tr>
<td></td>
<td>(3.0)</td>
<td>(6.3)</td>
<td>(27.0)</td>
</tr>
<tr>
<td>9. Participation in health communication operation, i.e. being public health volunteer, health committee, health volunteer, Surveillance and Rapid Response Team (SRRT), member of health project or activity, or content</td>
<td>22</td>
<td>28</td>
<td>107</td>
</tr>
<tr>
<td></td>
<td>(5.5)</td>
<td>(7.0)</td>
<td>(26.8)</td>
</tr>
</tbody>
</table>
Table 5.8 (Continued)

<table>
<thead>
<tr>
<th>Health Behavior</th>
<th>Level of Agreement/Practice</th>
<th>z/ Interpretation</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>exhibitor in relation to community health communication.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. A healthy person has to consist more than physical strength, but also</td>
<td>3</td>
<td>(0.8)</td>
<td>.889</td>
</tr>
<tr>
<td>wellness of mind, spiritual, and good relation with environment.</td>
<td>12</td>
<td>(3.0)</td>
<td></td>
</tr>
<tr>
<td>11. Health communication is involved with everyone, every group, and every agency.</td>
<td>5</td>
<td>(1.3)</td>
<td>.902</td>
</tr>
<tr>
<td>12. Emphasis on behavioral adaptation in order to avoid illness since he/she</td>
<td>5</td>
<td>(1.3)</td>
<td>.935</td>
</tr>
<tr>
<td>was healthy such as avoiding useless food including salty, sweet, and fatty food</td>
<td>16</td>
<td>(4.0)</td>
<td></td>
</tr>
<tr>
<td>or taking alcohol and exercising more.</td>
<td>77</td>
<td>(19.3)</td>
<td></td>
</tr>
<tr>
<td>13. The utilization of alternative medicines, i.e. using herbs for illness</td>
<td>10</td>
<td>(2.5)</td>
<td>.983</td>
</tr>
<tr>
<td>treatment, meditation, or having brown rice.</td>
<td>13</td>
<td>(3.3)</td>
<td></td>
</tr>
<tr>
<td>14. Caring of him/herself and other locals in community are able to practice in</td>
<td>8</td>
<td>(2.0)</td>
<td>.992</td>
</tr>
<tr>
<td>everywhere that is not limited to practice within public health agencies only.</td>
<td>14</td>
<td>(3.5)</td>
<td></td>
</tr>
<tr>
<td>15. Grouping for doing activity or exercise and talking with persons who</td>
<td>8</td>
<td>(2.0)</td>
<td>.970</td>
</tr>
<tr>
<td>has similar characteristics help to better care his/her health.</td>
<td>13</td>
<td>(3.3)</td>
<td></td>
</tr>
<tr>
<td>Overall Mean Score</td>
<td></td>
<td></td>
<td>3.73</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(High)</td>
</tr>
</tbody>
</table>
Table 5.8 shows that generally, the respondents were in high level of agreement and practice along health behavior of community. The overall mean score was at 3.73. When considered in detail it is found that respondents agreed and practiced along “Healthy person has to consist more than physical strength, but also wellness of mind, spiritual, and good relation with environment.” the most. This is followed by “Health communication is involved with everyone, every group, and every agency.”, and subsequently was “Caring of him/herself and other locals in community are able to practice in everywhere that is not limited to practice within public health agencies only”. However, most respondents didn’t agree with “Stress or deteriorated environment don’t effect on the illness” the most.

5.3 Part III: Inferential Statistical Analysis

5.3.1 The Results of the Analysis of the Measurement Model

The results of the analysis of the measurement model and the structural equation model of communication factors for health communication of community which researcher developed, were congruent with empirical data as shown in Figure 5.2-5.4 and Table 5.9:
Figure 5.2  The Examination of Construct Validity through Confirmatory Factor Analysis (CFA)

Note:  Chi-square = 321.34, p = 0.00, df = 113, Chi-square/df = 2.84, RMSEA = 0.059, RMR = 0.029, SRMR = 0.036, AGFI = 0.87, GFI = 0.92, NFI = 0.99, NNFI = 0.99, CFI = 0.99, IFI = 0.98, RFI = 0.98

From Figure 5.2, it shows that the examination of construct validity through Confirmatory Factor Analysis (CFA) revealed the fit of the measurement model with empirical data. This was determined by passing the determined criteria 10 indicators, out of 13 (Hair et al., 2014; Kaiwan, 2013, p. 228). The model’s fit indicators were accepted as follows: 1) Chi-Square/df = 2.84 (< 5.00), 2) Comparative Fit Index (CFI) = 0.99 (> 0.95), (> 0.90), 3) Normed Fit Index (NFI) = 0.99 (> 0.95), 4) Non-normed Fit Index (NNFI) = 0.99 (> 0.95), 5) Standardized Root Mean Square Residual (SRMR) = 0.036 (< 0.05), 6) Goodness of Fit Index (GFI) = 0.92 (> 0.90), 7) Incremental Fit Index (IFI) = 0.98 (> 0.95), 8) Relative Fit Index (RFI) = 0.98 (> 0.95), 9) Root Mean Square Residual (RMR) = 0.029 (< 0.05), and 10) Standard Root Mean Square Residual (SRMR) = 0.036 (< 0.05). Furthermore, 18 observed variables from 5 latent variables all had .01 and 0.05 level of significance and almost all factor loading had values more than 0.50 so, observed variables were considered to meet the suitable criteria as exhibited in Table 5.9.
### Table 5.9 Factor Loading Value of Each Observed Variable

<table>
<thead>
<tr>
<th>Latent Variables</th>
<th>Observed Variables</th>
<th>Factor Loading Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. COMMUNICATION</td>
<td>1. Frequency of community media exposure</td>
<td>0.56**</td>
</tr>
<tr>
<td></td>
<td>2. Skill and knowledge of sender towards health communication</td>
<td>0.63**</td>
</tr>
<tr>
<td></td>
<td>3. Attitude of sender towards receiver and health communication content</td>
<td>0.65**</td>
</tr>
<tr>
<td></td>
<td>4. Sender’s consideration of social and cultural context to communicate health issues</td>
<td>0.71**</td>
</tr>
<tr>
<td></td>
<td>1. Obtaining information, knowledge and advice related to health promotion</td>
<td>0.74**</td>
</tr>
<tr>
<td>2. SATISFACTION</td>
<td>2. Obtaining health information consistent with community’s taste and needs</td>
<td>0.72**</td>
</tr>
<tr>
<td></td>
<td>3. Two-way and participatory communications in health communication</td>
<td>0.72**</td>
</tr>
<tr>
<td></td>
<td>4. Observing a proper model from health senders</td>
<td>0.82**</td>
</tr>
<tr>
<td></td>
<td>1. Role in being a role model of health promotion</td>
<td>0.69**</td>
</tr>
<tr>
<td></td>
<td>2. Role in supporting health activities</td>
<td>0.81**</td>
</tr>
<tr>
<td>3. HEALTH LEADER</td>
<td>3. Role in public hearing and having public mind in health operations</td>
<td>0.82**</td>
</tr>
<tr>
<td></td>
<td>4. Role in educating and inspiring of health promotion</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1. Three levels of community participation</td>
<td>0.10*</td>
</tr>
<tr>
<td></td>
<td>2. Health information exchange is beneficial to all stakeholders</td>
<td>0.89**</td>
</tr>
<tr>
<td>4. PARTICIPATION</td>
<td>3. Equality in health communication from all people and agencies</td>
<td>0.98**</td>
</tr>
<tr>
<td></td>
<td>4. Decentralization of health content from public health officers to all stakeholders</td>
<td>0.96**</td>
</tr>
<tr>
<td>5. HEALTH BEHAVIOR</td>
<td>1. Health behavior in unusual situations</td>
<td>0.46**</td>
</tr>
<tr>
<td></td>
<td>2. Health behavior in normal situations</td>
<td>0.69**</td>
</tr>
</tbody>
</table>

**Note:** **p = 0.01, *p = 0.05**
5.3.2 The Results of the Analysis of the Structural Equation Model

1) The analysis of the fit between the structural equation model and empirical data

From analysis of the structural equation model, the fit between structural equation model of communication factors for health communication of community and empirical data was confirmed. After modifying the structural model by adjusting statistical errors; therefore, a final model which passed the accepted fit criteria from 8 out of 13 indicators were finally achieved as shown in the Figure 5.2 and 5.3.

Chi-square = 471.94, p = 0.00, df = 118, Chi-square/df = 3.99, RMSEA = 0.085, RMR = 0.032, SRMR = 0.039, AGFI = 0.84, GFI = 0.89, NFI = 0.98, NNFI = 0.98, CFI = 0.98, IFI = 0.98, RFI = 0.97

Figure 5.3 Direct Effect and Path Coefficient Effect Values within the Structural Equation Model

Note: *p = 0.05, **p = 0.01

Coefficient effect value is significant
Coefficient effect value is not significant
Figure 5.4 Structural Equation Model of Communication Factors for Health Communication Behavior of Community from LISREL’s Output Analysis

From Figure 5.3 and 5.4 show that the structural equation model of communication factors in promoting the participatory communication to create health communication behavior of community was in accordance with empirical data according to assumed hypothesis, by passing the determined criteria 8 indicators, out of 13. The model’s fit indicators were accepted the following: 1) Chi-Square/df = 3.99 (< 5.00), 2) Comparative Fit Index = 0.98 (> 0.95), 3) Normed Fit Index (NFI) = 0.98 (> 0.95), 4) Non-normed Fit Index (NNFI) = 0.98 (> 0.95), 5) Incremental Fit Index (IFI) = 0.98 (> 0.95), 6) Relative Fit Index (RFI) = 0.97 (> 0.95), 7) Root Mean Square Residual (RMR) = 0.032 (< 0.05) and 8) Standard Root Mean Square Residual (SRMR) = 0.039 (< 0.05).

When analyzing the direct effect path coefficient values of exogenous and endogenous variables in structural equation model, it is found that communication factors variable (COMMUNICATION) had a positive direct effect on community satisfaction in regards to acquiring health communication information variable (SATISFACTION) at 0.95 and role of personal media in order to be health communication leader in community variable (HEALTH LEADER) at 0.67, but had no effect on participatory communication in community health communication
variable (PARTICIPATION), and health behavior of community variable (HEALTH BEHAVIOR). Furthermore, community satisfaction in regards to acquiring health communication information variable (SATISFACTION) had a positive direct effect on role of personal media in order to be health communication leader in community variable (HEALTH LEADER) at 0.20, participatory communication in community health communication variable (PARTICIPATION) at 0.42 and health behavior of community variable (HEALTH BEHAVIOR) at 0.58. Participatory communication in community health communication variable (PARTICIPATION) also had a positive direct effect on health behavior of community variable (HEALTH BEHAVIOR) at 0.19. Ultimately, role of personal media in order to be health communication leader in community variable (HEALTH LEADER) had a positive direct effect on health behavior of community variable (HEALTH BEHAVIOR) at 0.30, but had no effect on participatory communication in community health communication variable (PARTICIPATION).

**Table 5.10** Causal Relationship among Observed Variables in Structural Equation Model

<table>
<thead>
<tr>
<th>No.</th>
<th>Causal relationship</th>
<th>Path coefficient values</th>
<th>S.E.</th>
<th>C.R. (t-value)</th>
<th>Effectual direction</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>COMMUNICATION → SATISFACTION</td>
<td>0.95</td>
<td>0.05</td>
<td>20.09**</td>
<td>Positive effect</td>
</tr>
<tr>
<td>2.</td>
<td>COMMUNICATION → HEALTH LEADER</td>
<td>0.67</td>
<td>0.12</td>
<td>5.79**</td>
<td>Positive effect</td>
</tr>
<tr>
<td>3.</td>
<td>SATISFACTION → HEALTH LEADER</td>
<td>0.20</td>
<td>0.11</td>
<td>2.87**</td>
<td>Positive effect</td>
</tr>
<tr>
<td>4.</td>
<td>SATISFACTION → PARTICIPATION</td>
<td>0.42</td>
<td>0.21</td>
<td>1.97*</td>
<td>Positive effect</td>
</tr>
<tr>
<td>5.</td>
<td>SATISFACTION → HEALTH BEHAVIOR</td>
<td>0.58</td>
<td>0.15</td>
<td>3.90**</td>
<td>Positive effect</td>
</tr>
<tr>
<td>6.</td>
<td>HEALTH LEADER → HEALTH BEHAVIOR</td>
<td>0.30</td>
<td>0.10</td>
<td>2.95**</td>
<td>Positive effect</td>
</tr>
<tr>
<td>7.</td>
<td>PARTICIPATION → HEALTH BEHAVIOR</td>
<td>0.19</td>
<td>0.11</td>
<td>2.68**</td>
<td>Positive effect</td>
</tr>
</tbody>
</table>

**Note:** *p = 0.05, **p = 0.01

R² Values of latent variables: SATISFACTION = 0.85, HEALTH LEADER = 0.70, PARTICIPATION = 0.78, HEALTH BEHAVIOR = 0.75
From Table 5.10 structural equation model could be constructed in the form of standardize scores as follows:

\[
\text{SATISFACTION} = 0.95 \text{COMMUNICATION}, R^2 = 0.85 \quad \text{\ldots(1)}
\]
\[
(0.05)
\]
\[
20.09^{**}
\]

\[
\text{HEALTH LEADER} = 0.67 \text{COMMUNICATION} + 0.20 \text{SATISFACTION}, R^2 = 0.70 \quad \text{\ldots(2)}
\]
\[
(0.12) \quad (0.11)
\]
\[
5.79^{**} \quad 2.87^{**}
\]

\[
\text{PARTICIPATION} = 0.42 \text{SATISFACTION}, R^2 = 0.78 \quad \text{\ldots(3)}
\]
\[
(0.21)
\]
\[
1.97^{*}
\]

\[
\text{HEALTH BEHAVIOR} = 0.58 \text{SATISFACTION} + 0.30 \text{HEALTH LEADER} + 0.19 \text{PARTICIPATION} \quad R^2 = 0.75 \quad \text{\ldots(4)}
\]
\[
(0.15) \quad (0.10) \quad (0.11)
\]
\[
3.90^{**} \quad 2.95^{**} \quad 2.68^{**}
\]

**Note:** **p = 0.01, * p = 0.05

From equation 1), it is found that communication factors variable (COMMUNICATION) could explain the variation of community satisfaction in regards to acquiring health communication information variable (SATISFACTION) at 85 percent. Moreover, communication factors variable (COMMUNICATION) had a positive direct effect on community satisfaction in regards to acquiring health communication information variable (SATISFACTION) at 0.01 level of significance. This might be explained that if communication factors (COMMUNICATION) increased by 1 standard deviation unit, it would affect community satisfaction in
regards to acquiring health communication information variable (SATISFACTION) with an increase of 0.95 standard deviation units.

From equation 2), it is found that communication factors variable (COMMUNICATION) and community satisfaction in regard to acquiring health communication information variable (SATISFACTION) could congruently explain the variation of health communication leader in community variable (HEALTH LEADER) at 70 percent. Moreover, communication factors variable (COMMUNICATION) and community satisfaction in regards to acquiring health communication information variable (SATISFACTION) had a positive direct effect on role of personal media in order to be health communication leader in community variable (HEALTH LEADER) at 0.01 level of significance. This might be explained that if other independent variables were constant, then if communication factors (COMMUNICATION) increased by 1 standard deviation unit, it would affect role of personal media in order to be health communication leader in community variable (HEALTH LEADER) with an increase at 0.67 standard deviation unit. If community satisfaction in regards to acquiring health communication information variable (SATISFACTION) increased by 1 standard deviation unit, it would affect role of personal media in order to be health communication leader in community variable (HEALTH LEADER) with an increase of 0.20 standard deviation units.

From equation 3), it is found that community satisfaction in regards to acquiring health communication information variable (SATISFACTION) could explain the variation of participatory communication in community health communication variable (PARTICIPATION) at 78 percent. Moreover, community satisfaction in regards to acquiring health communication information variable (SATISFACTION) had positive direct effect on participatory communication in community health communication variable (PARTICIPATION) at 0.05 level of significance. This might be explained that if community satisfaction in regards to acquiring health communication information variable (SATISFACTION) increased at 0.67 standard deviation unit, it would affect role of personal media in order to be health communication leader in community variable (HEALTH LEADER) with an increase of 0.20 standard deviation units. It would affect participatory communication in community health communication variable (PARTICIPATION) with an increase of 0.42 standard deviation units.
From the equation (4), it is found that community satisfaction in regards to acquiring health communication information variable (SATISFACTION), role of personal media in order to be health communication leader in community variable (HEALTH LEADER), and participatory communication in community health communication variable (PARTICIPATION) could congruently explain the variation of health communication leader in community variable (HEALTH LEADER) at 75 percent. Moreover, community satisfaction in regards to acquiring health communication information variable (SATISFACTION), role of personal media in order to be health communication leader in community variable (HEALTH LEADER), and participatory communication in community health communication variable (PARTICIPATION) had positive direct effect on health behavior of community variable (HEALTH BEHAVIOR) at 0.01 level of significance. This might be explained that if other independent variables were constant, then if community satisfaction in regards to acquiring health communication information variable (SATISFACTION) increased by 1 standard deviation unit, it would affect health behavior of community variable (HEALTH BEHAVIOR) with an increase of 0.58 standard deviation unit. If role of personal media in order to be health communication leader in community variable (HEALTH LEADER) increased by 1 standard deviation unit, it would affect health behavior of community variable (HEALTH BEHAVIOR) with an increase of 0.30 standard deviation units, lastly, if participatory communication in community variable (PARTICIPATION) increased by 1 standard deviation unit, it would affect health behavior of community variable (HEALTH BEHAVIOR) with an increase of 0.19 standard deviation unit.

In conclusion, it could be explained that both measurement model and structural equation model were congruent with empirical data and all have a level of significance at 0.05 and 0.01.
5.3.3 The Analysis of Direct Effects, Indirect Effects and Total Effects, among the Endogenous and Exogenous Variables within the Structural Equation Model

From the analysis conducted in Table 5.10 it is found that the structural equation model, which the researcher developed fitted the empirical data. There was an exhibited direct effect in the form of standardized regression coefficients as present in Table 5.10. Therefore, the researcher summarized the analysis results of the direct effects, indirect effects, and total effects among endogenous and exogenous within the structural equation model as presented in Table 5.11.
**Table 5.11** The Analysis Results of the Direct Effects, Indirect Effects, and Total Effects among Endogenous and Exogenous Variables within the Structural Equation Model

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Effect</th>
<th>Causal Variable</th>
<th>COMMUNICATION</th>
<th>SATISFACTION</th>
<th>HEALTH LEADER</th>
<th>PARTICIPATION</th>
<th>HEALTH BEHAVIOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>SATISFACTION</td>
<td>DE</td>
<td></td>
<td>0.95**</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>IE</td>
<td></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>TE</td>
<td></td>
<td>0.95**</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>HEALTH LEADER</td>
<td>DE</td>
<td></td>
<td>0.67**</td>
<td>0.20**</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>IE</td>
<td></td>
<td>0.19**</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>TE</td>
<td></td>
<td>0.87**</td>
<td>0.20**</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>PARTICIPATION</td>
<td>DE</td>
<td></td>
<td>0.39</td>
<td>0.42*</td>
<td>0.00</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>IE</td>
<td></td>
<td>0.46**</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>TE</td>
<td></td>
<td>0.79*</td>
<td>0.42*</td>
<td>0.00</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>HEALTH BEHAVIOR</td>
<td>DE</td>
<td></td>
<td>-0.15</td>
<td>0.58**</td>
<td>0.30**</td>
<td>0.19**</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>IE</td>
<td></td>
<td>0.95**</td>
<td>0.14**</td>
<td>0.00</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>TE</td>
<td></td>
<td>0.81**</td>
<td>0.72**</td>
<td>0.30**</td>
<td>0.19**</td>
<td>-</td>
</tr>
</tbody>
</table>

Note: *p = .05, **p = .01
As shown in Table 5.11, the analysis of the results of the direct effects, indirect effects, and total effects among endogenous and exogenous within the structural equation model could be classified into three parts as follows:

5.3.3.1 Direct Effects

1) Communication factors variable (COMMUNICATION) had a positive direct effect on Community satisfaction in regards to acquiring health communication information variable (SATISFACTION), path coefficient at 0.95 and 0.01 level of significance.

2) Communication factors variable (COMMUNICATION) had a positive direct effect on role of personal media in order to be health communication leader in community variable (HEALTH LEADER), path coefficient at 0.67 and 0.01 level of significance.

3) Community satisfaction in regards to acquiring health communication information variable (SATISFACTION) had a positive direct effect on participatory communication in community variable (PARTICIPATION), path coefficient at 0.20 and 0.01 level of significance.

4) Community satisfaction in regards to acquiring health communication information variable (SATISFACTION) had a positive direct effect on role of personal media in order to be health communication leader in community variable (HEALTH LEADER), path coefficient at 0.42 and 0.05 level of significance.

5) Community satisfaction in regards to acquiring health communication information variable (SATISFACTION) had a positive direct effect on participatory communication in community health communication variable (PARTICIPATION), path coefficient at 0.58 and 0.05 level of significance.

6) Role of personal media in order to be health communication leader in community variable (HEALTH LEADER) had a positive direct effect on health behavior of community variable (HEALTH BEHAVIOR), path coefficient at 0.30 and 0.01 level of significance.

7) Participatory communication in community health communication variable (PARTICIPATION) also had a positive direct effect on health behavior of community variable (HEALTH BEHAVIOR), path coefficient at 0.19 and 0.01 level of significance.
5.3.3.2 Indirect Effects

1) Communication factors (COMMUNICATION) had a positive indirect effect on role of personal media in order to be health communication leader in community variable (HEALTH LEADER) through community satisfaction in regards to acquiring health communication information variable (SATISFACTION), path coefficient at 0.19 and 0.01 level of significance.

2) Communication factors (COMMUNICATION) had a positive indirect effect on participatory communication in community variable (PARTICIPATION) through community satisfaction in regards to acquiring health communication information variable (SATISFACTION), path coefficient of 0.40 and .01 level of significance.

3) Communication factors (COMMUNICATION) had a positive indirect effect on health behavior of community variable (HEALTH BEHAVIOR) through community satisfaction in regards to acquiring health communication information variable (SATISFACTION), on role of personal media in order to be health communication leader in community variable (HEALTH LEADER), and participatory communication in community health communication variable (PARTICIPATION), path coefficient at 0.14 and 0.01 level of significance.

4) Communication factors (COMMUNICATION) had a positive indirect effect on health behavior of community variable (HEALTH BEHAVIOR) through role of personal media in order to be health communication leader in community variable (HEALTH LEADER), and participatory communication in community health communication variable (PARTICIPATION), path coefficient at 0.95 and 0.01 level of significance.

5.3.3.3 Total Effects

1) Communication factors variable (COMMUNICATION) had a positive total effect on Community satisfaction in regards to acquiring health communication information variable (SATISFACTION), path coefficient at 0.95 and 0.01 level of significance.

2) Communication factors variable (COMMUNICATION) had a positive total effect on role of personal media in order to be health communication leader in community variable (HEALTH LEADER), path coefficient at 0.87 and 0.01 level of significance.
3) Communication factors variable (COMMUNICATION) had a positive total effect on participatory communication in community health communication variable (PARTICIPATION), path coefficient at 0.81 and 0.01 level of significance.

4) Communication factors (COMMUNICATION) had a positive total effect on health behavior of community variable (HEALTH BEHAVIOR), path coefficient at 0.79 and 0.05 level of significance.

5) Community satisfaction in regards to acquiring health communication information variable (SATISFACTION) had a positive total effect on role of personal media in order to be health communication leader in community variable (HEALTH LEADER), path coefficient at 0.20 and 0.01 level of significance.

6) Community satisfaction in regards to acquiring health communication information variable (SATISFACTION) had a positive total effect on participatory communication in community health communication variable (PARTICIPATION), path coefficient at 0.42 and 0.05 level of significance.

7) Community satisfaction in regards to acquiring health communication information variable (SATISFACTION) had a positive total effect on health behavior of community variable (HEALTH BEHAVIOR), path coefficient at 0.72 and 0.01 level of significance.

8) Role of personal media in order to be health communication leader in community variable (HEALTH LEADER) had a positive total effect on health behavior of community variable (HEALTH BEHAVIOR), path coefficient at 0.30 and 0.01 level of significance.

9) Participatory communication in community health communication variable (PARTICIPATION) also had a positive direct effect on health behavior of community variable (HEALTH BEHAVIOR), path coefficient at 0.19 and 0.01 level of significance.
CHAPTER 6

CONCLUSION, DISCUSSION, AND RECOMMENDATIONS

“The Development of Structural Equation Model of Communication Factors for Health Communication of Community” utilized the mixed methods research methodology. The research objectives included the following 1) to study the means of communication based on the three paradigms of health in successful communities; 2) to analyze the communication factors that lead to the success stories of communities in health communication; and 3) to develop and validate the congruence between the measurement model and the structural equation model of communication factors for health communication of community with empirical data. The discussions in this chapter are presented in the following order: part 1: the conclusion for the qualitative and the quantitative studies; part 2: discussion; and part 3: recommendations.

6.1 Part I: Conclusion for the Qualitative and the Quantitative Studies

6.1.1 The Conclusion of Qualitative Research

6.1.1.1 Objective No.1: To Study the Means of Communication Based on the Three Paradigms of Health in Successful Communities.

It was found that community districts 1) Bang Yai, Nonthaburi Province, 2) Phra Nakhon Si Ayutthaya, Phra Nakhon Si Ayutthaya Province, and 3) Nong Sua District, Pathumthani Province employ all the three health communication paradigms harmoniously in the areas. Although health communication paradigms have been modified based on the new discovery and new knowledge, these three are still linked together and have been used continuously to explain phenomena. The selection of a paradigm for application depends on the timing or the situation.
1) Health Education Paradigm

   (1) The needs of public health officers

   Public health officers, who may be in communities or who may be outside still believe that local people are uneducated. Moreover, the elderly group is perceived to lack the ability to perform healthcare since they are considered inactive and unchangeable. Meanwhile, the teenager group is seen to be educated however lack the recognition of importance in healthcare. Finally, the wealthy group is regarded to be dependent on public health personnel even in the case of minor illnesses.

   (2) The use of mass media in health communication

   Mass media like television is influential in giving knowledge, boosting satisfaction, changing behavior, and leading to appropriate healthcare.

   (3) The use of one-way communication in health communication

   One-way communication seems to be performed in the situations of epidemic, emerging infectious diseases, and re-emerging infectious diseases to control their spread. People in all sectors need to strictly follow the suggestions of public health officers who are either in or out of the communities. Moreover, they focus on having campaigns or mass media for giving the correct knowledge or information to the people.
2) Health Promotion Paradigm

(1) The expansion of public health communicators to the public sector

Members, who are health communicators, have grown in number and have expanded to include public health communication and headmen. However, these people must be trained by public health officers such as provincial public health officers, district public health officers, and officers of sub-district health promotion hospital. Moreover, people both under the public health organization and local government are regularly trained by external experts. This seems to be necessary, especially in times of epidemic, emerging infectious disease, and re-emerging infectious disease situations like dengue, MERS, and Ebola. This includes training about new vaccines for public health volunteers in the area so that they can present this to people.

(2) Emphasis on “Prevention” rather than “Treatment”

Public health officials center their focus on “Prevention” rather than “Treatment”; especially during the spread of epidemic diseases like

Figure 6.1 Characteristics of Health Education Paradigm
diphtheria, tuberculosis, and influenza spread into the community area, or when people in the community start to perform risky health behaviors. They are advised to protect themselves by wearing the mask to prevent respiratory infection, getting vaccinated to prevent the diphtheria, tuberculosis, and influenza, screening of diabetes and high blood pressure, heart disease and breast cancer.

(3) Adaptation of the content from the central sector to conform to the socio-cultural context by using participatory persuasive strategies

Public health officials in the community attempt to take the media tools from the central sector such as brochures, leaflets, posters, projects, activities in order to adapt the media and content to be more consistent with the situations, socio-cultural contexts, disease situations, and health hazard in their own community. Moreover, participatory persuasive strategies are performed through projects and activities by holding the meetings, giving comments and opinions about details of brochures, posters, leaflets, projects, and activities by leaders of people sector. These aim to improve the media design and health content to be harmonized with the socio-cultural context as well as the taste of the community.
The applied content to be conformed to the community context

The focus on “Prevention” rather than “Treatment”

The use of participatory persuasion through

**Health Promotion Paradigm**

The expansion of the group of health communicators to the public sector

3) Health Communication Paradigm

   (1) Emphasis on “promotion” when healthy rather than on “cure”

   During the time that there is no health crisis in the community, people from all sectors always turn to seek and open for the information about healthcare and health promotion. They emphasized on the “health promotion” since they are healthy rather than “cure” when they are sick. This is necessary to prepare for the possible coming crisis in the future. Additionally, the health dimension is considered as holistic health in which good health includes having strong physical and mental health, being optimistic, and living in a good environment and society.

   (2) The expansion of health communication media types and the conforming content to socio-cultural context, disease situations and health threat incidents

**Figure 6.2** Characteristics of Health Promotion Paradigm
Types of media in health communication are taken from “what is available in the community” as “community media” for health communication in the forms of specialized media, community media, and activity media such as public address system, broadcasting tower, coffee cafe, Thai-style antiphon, making long drums, knitting and basket making of old things, billboards, 3D media, A4 paper, shirts, stickers, bicycles, calendar and so on. The content presented through the community media tend to be consistent with the situations of disease prevention and control, health promotion centering on the community beliefs, and the socio-cultural context as well as the taste of people in that community. Furthermore, the content should emphasize more on the causes of the problems in the area and the actual needs of people in the community such as prevention and control of dengue hemorrhagic fever, child drowning prevention, prevention and solution of road accident, and consuming alcohol drinks control. In addition, the news about important epidemic disease or health hazard in the country should be immediately presented as well.

(3) Expansion of people group as leaders for health communication

People from all sectors contend that health leaders are not limited to the group of public health officials anymore. 1) Public health officials, 2) community leaders, 3) public health volunteers, 4) those who recovered from illnesses, and 5) relatives or family members who looked after the patients can all be the leaders for health communication of the community. The leaders for health communication always have to keep themselves healthy; they should not get sick from the disease, which can be prevented. Moreover, they should have the public service mind in giving the knowledge and advice, inspiring, and stimulate people in the community to promote their health.

(4) Integration Strategies of Traditional Media and New Media

Moreover, there is the use of “media integration” regardless of media type such as mass media, community media, specialized media, activity media or even new media, such as Internet, Facebook and Line. These play important roles in raising satisfaction and participation in doing community health
communication tasks to achieve the goals for personal health promotion and as tools in the cooperation between groups for the solution of community diseases and health hazard promptly.

(5) The use of participatory/two-way communication

The communication form focuses on participatory/two-way communication by role shifting between senders, who are public health officers from organizations under supervision of Ministry of Public Health, and receivers such as community leaders, village health volunteers and people. This is achieved through the discussion at the meeting or question asking in various activities throughout the communication process without fixed roles.

(6) The health communication leaders who are from the same group and are close to people in the community

When the community people who do not yet have the ideas about health promotion see that the exercise leaders or activity leaders are “people from the same group and are close to them”, the leader opinions are influential. Therefore, the leaders’ health advice affects community people, who are not alert, to have more inspiration in health promotion. This is promoted through the view that if those leaders can do the health promotion, they can do so as well.
6.1.1.2 Objective No.2: To Analyze the Communication Factors That Lead to the Success Stories of Communities in Health Communication

In the analysis of communication factors, which can lead the community to success case in health communication, the researcher used the “concept of communication components” as the analysis criteria. This consists of 1) sender 2) message 3) channel/media, 4) receiver, and 5) community context. The details of each component are presented as follows:

1) Sender Factors

1.1) Health senders are open-minded/ have expanded perspectives and support participatory communication in health communication work
(1) Perspective expansion of the perspective on “Having good health”

All public health officers from public health organizations and local administrative organizations, including community leaders have the attitude on the clear change of the health communication meaning from focusing on “Having good health” which means the strength of the body or people’s illnesses are caused by diseases, which are in line to the concept of “Germ Theory” and “Health Education”. Moreover, public health officers point out that the meaning of “Having good health” must not be defined exclusively about the body strength. It must be seen as “Holistic health” of strong mind, good diet, sleep well, can work for living, can gain income as well as being positive, can face with problems and obstacles and live well in a good environment and good society.

(2) Opportunity for every sector to be leaders in health communication

Most public health officers are more flexible and open. In the past they only viewed themselves as knowledgeable. People from the other sectors, which were not in public health, were perceived not to have health knowledge. However, they now realize that 1) public health officers 2) community leader 3) village health volunteer 4) one who used to get ill and recovered, including 5) relatives/family members who take care of the patients can be leaders in community health communication. It is no longer exclusively performed by the public health officers.

(3) Community leaders with no health educational background realize the significance of community health communication tasks.

Community leaders who do not graduate in the field of public health but they have awareness of the importance of community health communication by arranging projects/activities which correlate with problems in the area. One example is the Chief Executive of the Sub-district Administrative Organization realized that there have been many cases of road accidents in their community. Then they analyzed the causes and found that accidents occur from people who did not wear helmets. There were no traffic signs and lack road lights thus drivers could not see the bridge. From the realization of the problems, public health
volunteers and community leaders cooperated in setting up checkpoints, selling reasonable price helmets, compromised warning, painting the bridge to be seen clearly, installing more blinkers, road lights, guide signs, traffic signs and safety signs in the area of roadwork. From the small collaboration between Sub-district Administrative Organization and village health volunteers, many organizations realize the success of the project named “Road Accident Prevention and Solution” or Bueng Ba Model.

(4) The modification of formats/content from central health organization to correlate with social contexts, culture and disease situation and community health hazards

Public health officers, local leaders and public relations officers of both organizations participated in the level 2 and 3. The levels are defined as follows: 1) producer/sender such as, media production and content presentation/health communication spots through public address system/news broadcasting towers designed and selected by public health officers, public relations officers or local leaders and 2) planner/determiner such as, public health officers in the community from public health organizations and local administrative organizations prepare the content and arrange the format/content from brochures, leaflets, posters/projects/activities from the central health organization such as, safe food, diabetes mellitus test, blood pressure test, communicable and non-communicable diseases prevention and control in the first step before asking for opinion from people sector leaders in order to apply and adjust for more correlation with social contexts, culture and disease situation and community health hazard.

(5) Giving opportunity to people to participate in every level of community health communication tasks

Community people are allowed to participate in all three levels of community health communication. The tasks regarding the principal of participatory communication are 1) role of active audience: people sector leaders take part in giving opinions, responding through activities, projects or giving opinions on formats and message content. Other people, who are not village health volunteers or community leaders, are usually in the level of active audience by exchanging opinions, responding to community leaders and village health volunteers when they
were asked for opinions about formats of message model or activity formats. However, for the activity media whether they are the activity arrangement or the field trip, the community leaders, village health volunteers and people take the role of 2) Sender/Content exhibitor: such as being the speakers in presenting how they recovered from the illnesses, being the presenter through the public address system. As (3) policy planners/determiners: village health volunteer leaders or community leaders perform tasks such as writing community plans/projects concerning health promotion. The participants are considered to have indirect participation through people as shown in the Figure 6.4.

**Figure 6.4** Levels of Participation and Participants in Each Level of Every Sector in Community
1.2) Giving the importance to community health communication of leaders/health message sender

   (1) Leaders have visions or concepts in community health promoting and good relationship with every sector.

   The local leaders and public health officers from public health organizations and local administrative organizations as the “leaders/senders in health communication” have visions or concepts of strong and sustainable community health communication and want the people in the community to have knowledge and to be active in their health promoting for having good health when they are still healthy. This is considered as an important driving force for other sectors who are already interested in health communication work, especially people sector; village health volunteers and the community leaders to be eager to participate in the work and to be more enthusiastic in doing health communication work. Furthermore, the leaders must also have empirical work and continuity in work development for other sectors to see their intention and real dedication. Besides, the good relationship between the leaders and networks regardless of the fact that they were the local administrative organizations sector, official sector, private sector or people sector, including the leaders’ intention in working resulted on the good collaboration from inside and outside the community on operating the projects/activities.

   (2) The officers’ endeavor and attempt in policy studying

   The leaders in health communication especially in the district public health or central hospitals are the main people responsible for DHS policy under District Health System”. They pass on “Disease Control Competent District policy under District Health System” to other sectors to gain understanding and follow the policy. They also have endeavor and attempts in studying the information of each five main indicators and sub indicators in each main indicator exhaustively for the assessment until they have the insight understanding. This results in the operation for the complete answer to the indicators. However, for last year assessment, the three areas did not pass some criteria in the main indicators but because of the attempts and patience in studying information of each indicator,
analyzing the strengths and weaknesses of the previous work, including the public health officers’ long period of working in the areas and being the people in the areas make them become familiar with and know well about the problems in the areas. This resulted in their higher scores than other districts in the year 2014.

(3) The good relationship with networks and listening to feedback from people

The good relationship between leaders and networks which includes local administrative organizations sector, government sector, private sector and the public sector, including the leaders’ real intention in working result in receiving good cooperation from inside and outside the community in operating projects/activities. Additionally, the leaders’ intimacy to the people, paying attention, listening to the problems and accessing to the community are also the important factors to gain people’s satisfactory and inspiration by seeing themselves having potential and encouraging them in health promoting and being “leaders in health communication” of the community.

(4) Realizing the importance of “communication and participation” as factors of success

Community leaders agree that “communication and participation” is the important factor in receiving “Outstanding Disease Control Competent District” in 2014. The important communication components and participation consisted of 1) the combination between two-way communication to exchange opinion, feelings and experiences and one-way communication in the time that the community was in epidemic crisis; 2) participatory communication; 3) teamwork; and 4) networks/good and various relationship are very essential factors for the success. This includes the idea of extending the result, sharing of the methods to make the area succeed to other districts and learning from other community health communication methods, which can be applied to their own community.
Some public health officers indicate that the obstacles in policy operation in each area are the main indicators and sub indicators used as the assessment criteria for “Disease Control Competent District”. These are usually created by the high rank officers of the Division of Planning, Department of Disease Control without the participation from the regional public health officers. Moreover, the sub indicators in the assessment criteria have been changed and adjusted each year since 2011 to 2015. This caused the provincial public health officers and the district public health officers difficulty in working, as they have to pass on these indicators to other teamwork in other sectors, including local administrative organizations. They have to study and to understand each year criteria. This results in the discontinuity of the work or the projects under operation.

**Figure 6.5** Characteristics of Sender/Community Leader
2) Message Factors

Message presentation methods that meet different needs and correlate with community people’s need

The message appears in different types of media, especially specialized media; brochures, leaflets, posters, vinyl and message in a4 papers or words from personal media in short form of rhyme, writing/reading in the form of concise slogan that people in the area could understand easily. The purpose of the message content format in health communication are 1) message focusing on remedy 2) message focusing on prevention 3) message focusing on health hazard 4) message focusing on health promotion and 5) message that correlate with taste, social context and community culture. These modified messages encompass and meet the different needs of people in the community.

3) Channel Factor

(1) Various types of media and association with social contexts and community culture

The factor of “media in community” for health communication focus on variety of media by making “things presented in the community” to become “media” in health communication in the form of 1) community media; folk media, local media, news broadcasting towers, notice board 2) specialized media ; brochures, posters, 3D media, shirts, stickers, bicycles, calendar and A4 paper 3) personal media; public health officers, local officers and people sector 4) activity media; which are projects/activities about health communication and 5) new media; which play the important roles in current health communication include email, Internet, Facebook, Line and You Tube. The content, which is broadcast through media in the community, must correspond with health hazard situation, including social contexts and community culture. Although some media such as, brochures, leaflets, posters/projects/many activities were created by central health organization, the public health officers in the community from public health organizations and Local Administrative Organizations together with the leaders from people section tried to apply the format/content from those brochures, leaflets, posters/projects/many activities for more correspondence with their own social context, culture and disease situations and community health hazards.
However, the public health officers and the leaders from people sector agreed that television is necessary in community health communication. This is because people have easy access to television and all families have TVs. The news reporting about emerging diseases, re-emerging diseases, Mers, Ebola or dengue fever or even the stimulation for people to realize the importance of vaccination against diphtheria is covered extensively on TV. Television played a very important role in stimulating people to have knowledge and awareness and to adjust their health behavior. Besides, the use of media for health communication works in three areas involving “Media integration” such as, the use of specialized media; brochures, leaflets, exhibition, bicycles and stickers together with personal media in explanation/conversation/exchanging opinions; the use of personal media which people trust, rely on together with public address system; or new media such as, the sending of health knowledge from public health officers through Line to group of village health volunteers.

Figure 6.6 Attributes of Media in Community and Media Integration

means media integration.
(2) Network and partnership from various strong sectors

“Reunion as network” is considered a communication channel according to the communication components, which has larger territory than “media”. The reunion of networks is “space/period of time/and occasion” which the health communication process happened. Every sector of the community agrees that for their attainment of the highest score in the assessment by Office of Disease Prevention and Control, 1st area, Bangkok following the policy “Disease Control Competent District under DHS” and the receiving of the award “Outstanding Disease Control Competent District”, 2014. The teamwork is the most important. “Team” does not mean only the public health officers from the Department of Disease Control, provincial public health, district public health and hospitals. It also includes the local administrative organizations, government organizations, private sector, non-governmental organizations sector and public sector from both inside and outside the community which cooperate and collaborate in every form of community health communication works. Because of the teamwork from many sectors, public health organizations and non-public health organizations can form the “Network Member” and “Partnership” in health communication tasks. This shows that community health communication works at present cannot be processed by only public health organizations like what had been done in the past.

The networks in the three areas are formed by “individual/each department.” They become network members and the partnership outside the circle of the health network that support/provide resources, personnel and budget. One example is the “Road Accident Prevention and Solution Network” in Nong Sua District, Pathum Thani province. This project was developed by “individual/each department” becoming the members of the network and partnership which composed of district public health, sub-district Health promoting hospitals, village health volunteers, sub-district administrative organizations, provincial governor, Ministry of Social Development and Human Security, police officers from Highway Police Division, Department of Disaster Prevention and Mitigation and The Transport Company Limited. Every member/organizations, which are the members of the same network or partnership, help each other. This resulted in the continuity and sustainability of the network.
4) Receiver Factor

The adjustment of public sector’s roles to be the active audience

(1) The participation of people from every level in community health communication work

At present “New Health Theory” opens the opportunity for all sectors to take more roles in health communication works. This helps the public health sector to adjust working conditions by focusing more on participation. They need to ask for more cooperation from other partnership networks, especially public sector and local administrative organizations sector. Public sector has evolved from being previously seen as passive audience to participate more in health communication work. They have become village health volunteers, volunteer spirits, elderly health care volunteers, surveillance and rapid response team, provincial/district/sub district health committee, including being members of projects/health activities and being promoted as presenter/sender in the project/health activities.

As receivers, people participate in three levels following the concept of participatory communication which are the role of active audience by expressing opinions, responding through doing activities and projects or expressing opinions about media forms and content. For other people, who are not the village health volunteers or the community leaders, are usually in the level of active audience by expressing opinions, responding with community leaders and village health volunteers when asking for the opinions about the form of the model media or the form of activity arrangement. As the community is in a district area, there is a big population and it is difficult for everyone in the area to have the equal opportunity to participate. However, for the activity media whether it is the activity arrangement or the field trip, the community leaders, village health volunteers and people take the role of senders such as, being the speakers in the presentation of how they recovered from the illnesses or being the presenters through public address system. In the level of being policy planner/determiner such as, writing community plans/projects about health promotion, people who participate in this step are the village health volunteer leaders or community leaders. These people can be considered as having indirect participation through the people sector representatives by the suggestion from the
officers of sub-district health promoting hospitals and Division of Public Health and Environment or local administrative organizations as shown in the Figure 6.7.

**Figure 6.7** Levels of Participation and Participants in Each Step of People Sector

(2) Taking the role of opinion leaders of people sector

In case the presenters/senders in the project/health activities are people who have the attributes of “belong to the same group and are close to the people in the community”, their advice is more effective. When they give advice and be the good health model, it will result on receivers having more inspiration in their own health promoting by realizing that if those people can do health promotion. Eventually they believe that they will be able to do it as well. Furthermore, people who are leaders have the role of “opinion leaders” of people in the community, which
are passed on by public health officers, especially elderly group. They will persuade others to exercise or participate in the projects/health activities to gain the strong health, not feel depressed, have social contact and have sound mind as the leaders following the concept of Two-step flow of information and opinion leader as shown in the Figure 6.8.

Figure 6.8 Two-Step Flow of Information in Communication for Exercise/People’s Activity Participation

(3) Extension of perspective of ones who can be the leaders in health communication

People have a broader view regarding who can make a good health communication leader by giving value on the public sector such as the community leaders, village health volunteers, ones who got ill and recovered, including relatives/family members who take care of the patients can be leaders in community health communication. These leaders are not exclusively limited to the public health officers, but everyone can participate in health communication work equally.
The health promotion when still being in good health and avoidance of risky behavior against illnesses

Village health volunteers and community leaders have the similar opinion that people started changing their behavior and being more responsible for their own health promotion by focusing on their primary healthcare when they are slightly sick. They tend to search for some information from different media about healthcare before seeing the doctor or public health officers. They adjust their health behavior to avoid having illnesses such as, avoid eating too sweet, greasy and salty food, exercised, reduced smoking and reduced drinking alcohol. However, some people realize about taking care of themselves when they got sick or were already in risky situations. Furthermore, people also focus on using herbs and alternative medicine in curing their illnesses such as, taking common Andrographis Herb, Babbler’s Bill Leaf, curcuma, herbal message, hot compress massage, meditation, yoga and hot salt pot compression. People realize that these kinds of treatment help the balance of the body and mind better than only taking the modern medicine.

The role of personal media in being the initial sender who stimulate people to become active audience

The factor, which is the important stimulation in changing the behavior of public sector from passive audience to an active one, is the personal media. It is considered the most important factor in creating satisfaction, inspiration, supporting the participation and health behavior adjustment of people. This includes public health officers from hospitals, medical centers, district public health, sub-district health promoting hospitals, Division of Municipality Public Health and Environment officers and Sub district Administrative organization and local leaders such as, Deputy Mayor and Chief Executive of the Sub district Administrative Organizations. Additionally, these personal media are considered as the important “first senders” following the concept of Two-step flow. The theory explains that encourages the leaders from the public sector to start their own health promotion by giving opportunity to community leaders and village health volunteers to be trained and support them to be the health communication leaders in project operation activities. This results in the satisfaction and the pride of the community leaders and
village health volunteers who participate. They get to realize their potential and have the enthusiasm in health communication work. As a result they pass on some of their experiences to people in the area.

**Figure 6.9** Characteristics of Active Audience

5) Community Context Factor

From the in-depth interview, the researcher found that the community context that affects the community health behavior can be divided into two behaviors utilizing “different context in health situations” as the criteria for division: 1) health behavior in abnormal state and the researcher found that the “shared point” between two paradigms, which are “health behavior in health education paradigm and health promotion”. These two paradigms have correlation of important practice guideline, which involve with the dependence on public health officers in community disorder situation, such as in the period of health crisis; epidemic, re-emerging infectious diseases or emerging disease in the community; or in the period that the people have critical illnesses. They have to follow the suggestion
and cooperate with public health officers following the concept of “Health Education Paradigm”. Especially this is true in the situation that there is the trend of epidemics in the community or in the case that people start having risky health behavior. The public health officers will repeat the campaign of “To prevent” better than “To cure” when already get sick such as, wearing mask to prevent respiratory tract contagious diseases, vaccinating against diphtheria, tuberculosis, influenza, diabetes mellitus test, blood pressure, breast cancer following the concept of “Health Promotion Paradigm”. However, 2) health behavior in the normal state will appear in the normal state community situation. Individuals have to always be prepared by being active in taking care of one health when still being in good health and always keep healthy. They should do so by engaging in activities such as doing exercises, eating well and avoid eating too sweet, greasy, and salty food to not get sick. Moreover, Alternative Medicine might be considered such as, herbal treatments, massage herbal hot compress, acupuncture and mediation and always be ready when health crisis happen following the concept of “Health Communication Paradigm”

### 6.1.2 The Conclusion of Quantitative Research

#### 6.1.2.1 The Conclusion of Descriptive Statistical Analysis

1) Respondents’ demographic characteristics

More than half of the respondents were female, almost half of respondents were between 36-50 years old, followed by 21-35 years old and nearly half as well owned a bachelor’s degree. For occupation, respondents were Public health officers the most, followed by Public health volunteers or Community leaders. Lastly, most respondents earned between 10,001-20,000 baht on average per month, followed by 10,000 baht or lower.

2) Communication Factors

(1) Frequency of media exposure related to health communication information

Generally, the respondents were exposed to media in community related to health communication information at a high level. The overall mean score was 3.49. When considered in detail it is found that respondents were exposed to “Personal media who are public health officers” the most. This is followed
by “Personal media, who are health communication leader of public sector”; “New media”; and subsequently “Activity media”. However, media in community that respondents were exposed to in low level was “District Agricultural Extension Officer”.

(2) Opinion on those who involved in community health communication toward providing health communication information by media in community

Generally, the respondents agreed with providing health communication information by media in community. The overall mean score was at 3.94. When considered in detail it is found that respondents agreed that “Media in community help him/her realizing the importance of health care both physical and mental strength” the most. This is followed by “Public health officer, public health volunteer, and recovered patient have health communication knowledge well”. The next was “Media in community help him/her having knowledge and understanding to care and promote his/her health”.

3) Role of personal media in order to be health communication leader in community

Generally, the respondents agreed with the role of personal media in order to be health communication leader in community. The overall mean score was at 4.06. When considered in detail it is found that respondents agreed that “Health communication leader can be any persons not only public health officers, but also community leader, public health volunteer, recovered patient, and patient care taker” the most. This is followed by “Public health officer, public health volunteer, and recovered patient always care and strength their health and can be a role model of health care”, and subsequently “Public health officer, public health volunteer, and recovered patient can communicate in order to make locals aware of the importance of caring and strengthening their health”.

4) Community satisfaction in regards to acquiring health communication information

Generally, the respondents were in high level of satisfaction in regards to acquiring health communication information; overall mean score was at 4.06. When considered in detail it is found that respondents were satisfied that
“Satisfaction toward health communication information and suggestions that help them to care their health more than the past” the most. This is followed by “Satisfaction toward obtaining up-to-date and timely health communication information, such as emerging disease, recurring disease, or production of new vaccine”. Next were “Satisfaction toward health communication information in relation to acquirement new health knowledge that they have never known before” and “Satisfaction toward exchanging health communication information to others and be able to help them caring their health more than in the past”.

5) Participatory communication in community health communication

Generally, the respondents were in high level of participatory communication in community health communication. The overall mean score was at 3.58. When considered in detail it is found that respondents participated in “Public health officer give an opportunity to every person and sector within community to be an exhibitor for health caring” and “Listening to family members and relatives in relation to how to care for a patient including their limitations and needs” the most. This is followed by “Acquirement of health communication information from media in community”. Next was “Health communication information exchanging with public health officer and others have benefits for his/herself including being able to adapt with the community”.

6) Health behavior of community

Generally, the respondents were in high level of agreement and practice along health behavior of community. The overall mean score was at 3.73. When considered in detail it is found that respondents agreed and practiced along “Healthy person has to consist more than physical strength, but also wellness of mind, spiritual, and good relation with environment.” the most. This is followed by “Health communication is involved with everyone, every group, and every agency.”, and subsequently was “Caring of him/herself and other locals in community are able to practice in everywhere that is not limited to practice within public health agencies only”. However, most respondents didn’t agree with “Stress or deteriorated environment don’t effect on the illness” the most.
6.1.2.2 The Conclusion of the Congruence Analysis between the Measurement Model and Empirical Data

The examination of construct validity through Confirmatory Factor Analysis (CFA) revealed the consistence of measurement model with empirical data was found by passing the determined criteria 10 indicators, out of 13 (Hair et al., 2014; Kaiwan, 2013, p. 228). The model’s fit indicators were accepted the following: 1) Chi-Square/df = 2.84 (< 5.00), 2) Comparative Fit Index (CFI) = 0.99 (> 0.95), (> 0.90), 3) Normed Fit Index (NFI) = 0.99 (> 0.95), 4) Non-normed Fit Index (NNFI) = 0.99 (> 0.95), 5) Standardized Root Mean Square Residual (SRMR) = 0.036 (< 0.05), 6) Goodness of Fit Index (GFI) = 0.92 (> 0.90), 7) Incremental Fit Index (IFI) = 0.98 (> 0.95), 8) Relative Fit Index (RFI) = 0.98 (> 0.95), 9) Root Mean Square Residual (RMR) = 0.029 (< 0.05) and 10) Standard Root Mean Square Residual (SRMR) = 0.036 (< 0.05).

Furthermore, 18 observed variables from 5 latent variables all had 0.01 and 0.05 level of significance and almost factor loading had values more than 0.50 (as shown in Table) so, observed variables were considered a suitable criteria

6.1.2.3 The Conclusion of the Congruence Analysis between the Structural Equation Model and Empirical Data

The structural equation model of communication factors for health communication behavior of community was in accordance with empirical data according to assumed hypothesis, after modifying the structural model by adjusting statistical errors; therefore, a final model which passed the accepted congruence criteria from 8 out of 13 indicators were finally achieved. The model’s fit indicators were accepted the following: 1) Chi-Square/df = 3.99 (< 5.00), 2) Comparative Fit Index = 0.98 (> 0.95), 3) Normed Fit Index (NFI) = 0.98 (> 0.95), 4) Non-normed Fit Index (NNFI) = 0.98 (> 0.95), 5) Incremental Fit Index (IFI) = 0.98 (> 0.95), 6) Relative Fit Index (RFI) = 0.97 (> 0.95), 7) Root Mean Square Residual (RMR) = 0.032 (< 0.05) and 8) Standard Root Mean Square Residual (SRMR) = 0.039 (< 0.05).

When analyzed direct effect path coefficient values of exogenous and endogenous variables in structural equation model found that communication factors variable (COMMUNICATION) had a positive direct effect on community satisfaction in regards to acquiring health communication information variable (SATISFACTION) at
and role of personal media in order to be health communication leader in community variable (HEALTH LEADER) at 0.67, but had no effect on participatory communication in community variable (PARTICIPATION), and health communication behavior in community variable (HEALTH BEHAVIOR). Furthermore, community satisfaction in regards to acquiring health communication information variable (SATISFACTION) had a positive direct effect on role of personal media in order to be health communication leader in community variable (HEALTH LEADER) at 0.20, participatory communication in community variable (PARTICIPATION) at 0.42 and health communication behavior in community variable (HEALTH BEHAVIOR) at 0.58. Participatory communication in community variable (PARTICIPATION) also had a positive direct effect on health communication behavior in community variable (HEALTH BEHAVIOR) at 0.19. Ultimately, role of personal media in order to be health communication leader in community variable (HEALTH LEADER) had a positive direct effect on health communication behavior in community variable (HEALTH BEHAVIOR) at 0.30, but had no effect on participatory communication in community variable (PARTICIPATION).

Ultimately, it could be summarized that both measurement model and structural equation model were congruent with empirical data which corresponded to the assumed hypotheses; and all have a level of significance at 0.05 and 0.01.

6.1.2.4 The Conclusion of Direct Effects, Indirect Effects and Total Effects Analysis among Endogenous and Exogenous Variables within Structural Equation Model

The summary of analysis results among direct effects, indirect effects, and total effects among endogenous and exogenous within structural equation model could be summarized into 3 parts the following:

1) Direct Effects

(1) Communication factors variable (COMMUNICATION) had a positive direct effect on Community satisfaction in regards to acquiring health communication information variable (SATISFACTION), path coefficient at 0.95 and 0.01 level of significance.

(2) Communication factors variable (COMMUNICATION) had a positive direct effect on role of personal media in order to be health
communication leader in community variable (HEALTH LEADER), path coefficient at 0.67 and 0.01 level of significance.

3) Community satisfaction in regards to acquiring health communication information variable (SATISFACTION) had a positive direct effect on participatory communication in community variable (PARTICIPATION), path coefficient at 0.20 and 0.01 level of significance.

4) Community satisfaction in regards to acquiring health communication information variable (SATISFACTION) had a positive direct effect on role of personal media in order to be health communication leader in community variable (HEALTH LEADER), path coefficient at 0.42 and 0.05 level of significance.

5) Community satisfaction in regards to acquiring health communication information variable (SATISFACTION) had a positive direct effect on participatory communication in community variable (PARTICIPATION), path coefficient at 0.58 and 0.05 level of significance.

6) Role of personal media in order to be health communication leader in community variable (HEALTH LEADER) had a positive direct effect on health communication behavior in community variable (HEALTH BEHAVIOR), path coefficient at 0.30 and 0.01 level of significance.

7) Participatory communication in community variable (PARTICIPATION) also had a positive direct effect on health communication behavior in community variable (HEALTH BEHAVIOR), path coefficient at 0.19 and 0.01 level of significance.

2) Indirect Effects

1) Communication factors (COMMUNICATION) had a positive indirect effect on role of personal media in order to be health communication leader in community variable (HEALTH LEADER) through community satisfaction in regards to acquiring health communication information variable (SATISFACTION), path coefficient at 0.19 and 0.01 level of significance.

2) Communication factors (COMMUNICATION) had a positive indirect effect on participatory communication in community variable (PARTICIPATION) through community satisfaction in regards to acquiring health communication information variable (SATISFACTION), path coefficient at 0.40 and 0.01 level of significance.
(3) Communication factors (COMMUNICATION) had a positive indirect effect on health communication behavior in community variable (HEALTH BEHAVIOR) through community satisfaction in regards to acquiring health communication information variable (SATISFACTION), on role of personal media in order to be health communication leader in community variable (HEALTH LEADER), and participatory communication in community variable (PARTICIPATION), path coefficient at 0.14 and 0.01 level of significance.

(4) Communication factors (COMMUNICATION) had a positive indirect effect on health communication behavior in community variable (HEALTH BEHAVIOR) through role of personal media in order to be health communication leader in community variable (HEALTH LEADER), and participatory communication in community variable (PARTICIPATION), path coefficient at 0.95 and 0.01 level of significance.

3) Total Effects

(1) Communication factors variable (COMMUNICATION) had a positive total effect on Community satisfaction in regards to acquiring health communication information variable (SATISFACTION), path coefficient at 0.95 and 0.01 level of significance.

(2) Communication factors variable (COMMUNICATION) had a positive total effect on role of personal media in order to be health communication leader in community variable (HEALTH LEADER), path coefficient at 0.87 and 0.01 level of significance.

(3) Communication factors variable (COMMUNICATION) had a positive total effect on participatory communication in community variable (PARTICIPATION), path coefficient at 0.81 and 0.01 level of significance.

(4) Communication factors (COMMUNICATION) had a positive total effect on health communication behavior in community variable (HEALTH BEHAVIOR), path coefficient at 0.79 and 0.05 level of significance.

(5) Community satisfaction in regards to acquiring health communication information variable (SATISFACTION) had a positive total effect on role of personal media in order to be health communication leader in community variable (HEALTH LEADER), path coefficient at 0.20 and 0.01 level of significance.
(6) Community satisfaction in regards to acquiring health communication information variable (SATISFACTION) had a positive total effect on participatory communication in community variable (PARTICIPATION), path coefficient at 0.42 and 0.05 level of significance.

(7) Community satisfaction in regards to acquiring health communication information variable (SATISFACTION) had a positive total effect on health communication behavior in community variable (HEALTH BEHAVIOR), path coefficient at 0.72 and 0.01 level of significance.

(8) Role of personal media in order to be health communication leader in community variable (HEALTH LEADER) had a positive total effect on health communication behavior in community variable (HEALTH BEHAVIOR), path coefficient at 0.30 and 0.01 level of significance.

(9) Participatory communication in community variable (PARTICIPATION) also had a positive direct effect on health communication behavior in community variable (HEALTH BEHAVIOR), path coefficient at 0.19 and 0.01 level of significance.

6.2 Part II: Discussion

According to the results the discussion is classified into 4 parts based on the research objectives: 1) discussion of new findings from the qualitative section; 2) discussion of the three health paradigms in the communities; 3) discussion of factors that lead to the success stories of communities in health communication; and 4) discussion of measurement model and the structural equation model of commination factors for health communication of community with the empirical data. Each aspect is discussed in detail as follows:

6.2.1 New Findings from the Qualitative Approach

6.2.1.1 The Flexible Views on Who Can Become “Personal Media” in Health Communication

People in all sectors realized that 1) public health officers, 2) community heads, 3) public health volunteers, 4) people who had been ill, and 5)
relatives or family members who have taken care of patients could become the leaders for community health communication. The leaders were no longer limited to the public health officers. The groundbreaking finding in terms of Thai community health communication was “people who had been ill and relatives or family members who had taken care of patients” could become the influential leaders. This might be because they had direct experiences. Therefore, they could share the experiences to the audience, especially other patients to encourage them to get better. However, these leaders must always take care of themselves well, have no preventable sickness, be open to different opinions and sharing, have service mind, be able to transfer knowledge or suggestion, be inspiration for others, and encourage community people to promote their health.

6.2.1.2 Roles of New Media in Health Communication in Community Health Communication Networking Acceleration

The research settings were “suburban communities” in which almost all people ranging from the public health officers to the public can access information from new media. This includes search engine such as Google.com, e-mails, websites, Facebook, Line. These media played their key roles in forming health communication networking in every relevant sector as channels for health information seeking, exchanging, and responding to questions of community people. Besides, they facilitated cooperation to achieve disease or health risk solutions within the networks. This includes cooperation to visit sites in which there were emergency cases of public health officers, municipalities, community heads, and public health volunteers. Moreover, it was found that the local administrative organizations (LOAs), municipalities, and sub-district administrative organizations were influential in performing health communication tasks. This resulted from their Bureau of Public Health and Environment, which provided funding for media production and activity conducting for the organizations.

6.2.2 The Means of Communication Based on the Three Paradigms of Health in Successful Communities

Analysis of the qualitative data revealed that communities in 1) Bangyai District, Nonthaburi Province, 2) Phra Nakhon Si Ayutthaya District, Phra Nakhon Si
Ayutthaya Province, and 3) Nong Sua employed all three health paradigms namely, 1) “Health Education Paradigm, 2) “Health Promotion Paradigm”, and 3) “Health Communication.” Each of them worked in harmony with each another.

Regardless of the groundbreaking findings about health paradigms and new knowledge about the aforementioned three paradigms, all of the three paradigms were interrelated and integrated in the areas. Each of them took turns to play key roles in different situations depending on the appropriateness. For example, Health Education Paradigm played its roles during health crises such as the spread of communicable diseases, emerging infectious diseases, or outbreak cases in the community such as meningococcal meningitis, dengue or diarrhea in children. In the meantime, people were required to strictly follow the instruction of public health officers according to the paradigm prior to the spread of the communicable/ re-emerging infectious diseases provided that those diseases could expand rapidly or result in loss of life, economic, and social damage such as Mers and Ebola.

Health promotion paradigm: Provided the guideline for the best practices during vaccination against a communicable disease in communities. That is to say vaccination for such as diphtheria or influenza was required to be provided to protect and control the diseases in the crises. Additional measures needed to be implemented when people tended to perform risky behavior such as eating too sweet, greasy, or salty food with no exercise. The behavior resulted in diabetes, high blood pressure, or cervical cancer. People must obtain primary health checkup by public health officers, while public health volunteers, or trained community heads assisted in raising people awareness of disease and health threat prevention. However, when still in good health people must be ready to perform health promotion to keep fit as proposed in Health Communication Paradigm.

The findings in this study were in line with those in previous studies on health communication of Somsuk Hiniviman (2003, pp. 118-121), Kanjana Kaewtheep (2004, pp. 72-73), Duangporn Kamnoonwatana, Niyanan Sampao-ngern, and Sunida Siwapathomchai (2008, pp. 1-6, pp. 20-23) who stated that the correlated findings show that two systems of community health communications need to be applied at the same time. The two systems are 1) Transmission Model, which centers on persuasive communication and message transferring from senders and 2) Ritualistic Model,
which focuses on mutual understanding between senders and receivers. Moreover, “Health Communication Model” must comprise of three paradigms that equally play their roles. Each could not be absent. However each may be dominant in different situations such as during normal situations, people were expected to have active roles to promote their health and keep fit. This should be performed in accordance with Health Communication Paradigm. Besides, when disease spreading occurred or numbers of people in the community contracted severe disease, they must follow the instructions of public health officers and collaborate with them, which was in line with “Health Education Paradigm.” In the meantime during these incidents people needed to get vaccination if the diseases were preventable. Moreover, personal media for health communication included public health volunteers and community heads, who were trained by the public health officers in central health organizations conforming to “Health Promotion Paradigm.”

Based on the three health paradigm explanations about health behavior are provided as follows:

6.2.2.1 Health Education Paradigm

Some of public health officers, both the insiders and the outsiders, realized that people were not totally committed to health promotion. This depended much on the officers’ assistance when being sick. They also proposed that one-way communication or commanding communication should be performed during the spread of the communicable, re-emerging infectious disease, emerging infectious diseases, or when people had serious illnesses. This facet of communication was effective in controlling the spread as people were required to strictly follow the command or suggestion of the public health officers inside and outside of the communities. In addition television was remarkably influential on knowledge transferring, satisfactory boosting, attitude changing and behavior adjusting, especially during disease spreading incidents or in outbreak cases. This was in line with Somsuk Hinviman (2003, pp. 115-121), Kanjana Kaewthep et al. (2013, pp. 217-220)’s notion about Health Education Paradigm that public health senders tended to believe that community people had no health information, knowledge, and decision-making power. For them this paradigm paid significant attention on physical conditions by centering on persuasive communication through personal media, the
public health officers, or mass media such as television or campaigns with less attention on social environment. Also people were seen to depend on health personnel such as doctors, nurses, and public health officers. Next, one-way communication from the officers to the public was performed with the aim to develop their knowledge, adjust their attitudes and behavior according to K-A-P theory. The target group of the paradigm was people with illnesses of which the causes are known or unknown.

6.2.2.2 Health Promotion Paradigm

Health communication senders could include public health volunteers and community leaders provided that they had been trained by public health officers such as the provincial public health officers, district public health officers, and officers in sub-district health promotion hospitals. Besides, the officers in public health organizations and local administrative organizations themselves also took training courses organized by external experts. They were aware of getting more knowledge so that they could transfer it to public leaders. Moreover, every sector focused exclusively on “promoting” rather than “healing” in disease spreading incidents or situations in which risky behavior was performed. This included mask wearing campaign for communicable respiratory diseases, vaccination against diphtheria, tuberculosis, or influenza, and screening of diabetes, high blood pressure, and cervical cancer. In the meantime, public health officers in a community also put efforts in adjusting the contents of brochures, leaflets, and posters/projects/activities from the central health organizations. The contents were modified to correspond more to social and cultural contexts as well as disease situations or health threats in each community. Simultaneously, the public health officers conducted participatory persuasive communication by holding meetings in which community heads were allowed to propose their ideas about details of the brochures, leaflets, and posters/projects/activities for the messages to be in line with their social and cultural settings as well as the community taste. This is done in accordance with concepts proposed by Somsuk Hinviman (2003, pp. 118-121), Kanjana Kaewthep et al. (2013, pp. 225-227), Neuhauser and Kreps (2011, pp. 10-12), Northouse and Northouse (1992). They explained that heath communication according to Health Promotion Paradigm. This included public health volunteers and community heads as senders
provided that they were trained by central public health officers. Meanwhile, people started to perceive health “promotion” such as vaccination to be more preferable than “healing.” Similarly, the messages featured in “community media” were readjusted to serve with the cultural contexts. Persuasive one-way communication and participatory communication were centered on, while the target group was those healthy people, who were interested in preventing diseases by promoting their immune system by vaccination or early screening.

6.2.2.3 Health Communication Paradigm

According to this paradigm people in every sector initially started to seek for and to expose themselves to information about how to promote their health. They concentrated on staying healthy centering on “promoting” when they were still healthy rather than “healing” after getting illnesses. Besides, health dimensions were perceived to be “holistic.” That is to say that good health must include healthy body, clear mind with no stress, positive thinking, and suitable environment and society. In terms of health communication media in the research settings “available objects in the community” were creatively applied as “community media” for health communication focusing on “media integration” regardless of media types. Therefore, mass media, community media, specialized media, or new media such as the Internet, Facebook, Line or were applied in health communication. The new media were extremely influential in promoting satisfaction level of people and promoting participation in health communication of community people. The media promoted people to take care of themselves and facilitate collaboration in solving disease problems and health threats in the community promptly.

The contents on community media tended to correspond to the local contexts of health protection and promotion. Also they were in line with social and cultural contexts as well as the taste of community people. Problems in the community were centered how to serve people real needs. Moreover, all sectors were perceived as effective health communication leaders regardless of 1) public health officers, 2) community heads, 3) public health volunteers, 4) people who had been ill, 5) relatives or family member who taking care of patients. They believed that health communication leaders shouldn’t be the responsibility of the public health officers. However, these leaders must always perform healthcare to stay healthy and had no
preventable diseases. Also they must have service mind, able to transfer knowledge and suggestion, inspire people, and encourage them to take care of their health. It the meantime, participatory/two-way communication were performed with the role shifting between senders, which were public health officers in public health organizations and receivers including community heads, public health volunteers, and the public. The people exchanged their ideas in meetings or asked questions when performing activities throughout the communicative processes. This was congruent to the findings by scholars about the efficiency of the New Paradigm of Health both the qualitative and quantitative ones. Health communication under this recent paradigm centered on “active roles in health promotion of self”. This must be performed when they were still healthy. The idea had been supported by many scholars across the globe, for example, by some Thai scholars such as Somsuk Himviman (2003, pp. 120-121), Wasana Chansawang et al. (2005, pp. 95-108), Auranich Chitsawang. (2006, pp. 99-104), Kanjana Kaewtheep (2004, pp. 5-21), Kanjana Kaewtheep et al. (2013, pp. 233-242), Duangporn Kamnoonwatana et al. (2006, pp. 195-221), Duangporn Kamnoonwatana, Niyanan Sampa–ngern, and Sunida Siwapathomchai (2008, pp. 20-23), Thapin Patcharanuruk (2005, pp. 161-173), Rangsima Nilobol (2004, pp. 228-230), Suttipa Wongyala (2000, pp. 111-123), and some international scholars such as Germov (2002, pp. 334-336), Heldman et al. (2013, pp. 2-8), King (1981, pp. 75-79), Sharma (1992, pp. 16-17), Suggs and Ratzan (2012, pp. 250-260). “Good health” has a new definition and was seen as “holistic health” that included balance among body, mind, society, environment, and soul. Participatory/Two-way communication with the shifting roles between sender and receivers were performed fluidly without the fixed roles. Meanwhile, health communication leaders were extended to more parties. As health communication tasks involved everyone, no longer limited only to the public health officers. Now it included anyone who took good care of their health, was responsible, and had service mind, could make good health leaders. In terms of the media, many community media were acceptable and reliable. These media were 1) personal media that originated within a community aside from those officially appointed or assigned by the central organizations such as monks, local wisdom, the locals, local doctors; 2) local media, which was related to community culture; 3) activity media, which facilitated two-ways communication such as small group
meetings, discussion, and relationship boosting activities; 4) mass media such as television, radios, newspaper, and films; 5) specialization media, which provided knowledge and information for people as well as promoted health promotion activities through posters, brochures, leaflets, journals, company notices, public address, and videotapes featuring health promotion information; and 6) new media including e-mails, websites, search engines such as Google.com and application like Line, Facebook, or You Tube. These new media played their roles in health communication by assisting people to perform self-care and provided real-time answers to their questions about health. Besides, new media promoted two-ways communication, encouraged commitment, and led to more participation. Moreover, the media was influential in promoting networks among all sectors and more health communication participation. Media integration such as the application of new media, community media, and personal media to communicate with the public resulted in community engagement. When people were engaged in health communication, they discussed about how to promote their health. Consequently thus leading to participatory communication.

6.2.3 The Communication Factors That Lead to the Success Stories of Communities in Health Communication

Components of Communication were employed in the analysis of the factors influencing a community to become a success case in health promotion. These elements were 1) senders, 2) messages, 3) channels/ media, and 4) receivers (Berlo, 1960, pp. 41-54). The results are presented as follows:

6.2.3.1 Senders

Perception about “Good Health” has been extended to not only the state of having a healthy body. In contrast, it should be referred to as “holistic health,” which included having strong mind, healthy body, enough food and rest, being able to afford stuffs for survival, and being in a suitable environment. People in other sectors had the chance to become community health communication leaders regardless of the public health officers. Besides, community heads with no educational background in public health were aware of accelerating health communication tasks in their communities by being approachable and attentive, listening to people’s problems, and
approaching the communities. As a result, community people were more satisfied and inspired. Besides, they were aware of their potential and had higher morale in performing health promotion or eventually became the community “health communication leaders.” Moreover, these community heads realized that “communication and participation” were essential for successful health communication. Successful health communication must include 1) integration between two-ways communication and one-way communication. The first aspect focused on the exchange of opinion, knowledge and experiences, while the latter was significant in outbreak cases; 2) participatory communication; 3) teamwork; and 4) close and versatile membership/partnership. This was in line with previous studies conducted by Thai and international scholars, who studied communication for development and continuous community health communication such as Pramaha Suthis Apakaro (2004, pp. 84-91), Kanjana Kaewthep et al. (2013, pp. 165-166), Berlo (1960, pp. 41-54), Rangsima Nilobol (2004, pp. 228-246), Windahl, Signitzer, and Olson (1992, pp. 155-166), Samphan Techataik (1994, pp. 97-98). Consensually, these scholars found that personal media/senders in communication for community development must provide opportunities for people to exchange information, and knowledge to boost understanding and communication understanding, and skills for transferring the knowledge to related parties. The exchange of information and promotion of opinion sharing resulted in the problem solving of the individual or community. Besides, the idea of holistic health must be aware of in focusing on “continuous healthy life.” The concept referred to the balance, correlation, assimilation, and dependence of body, mind, and soul. Moreover, health communication tasks should not be exclusively performed by public health organizations. However, relevant people included public health officers, community heads, community leaders, local administrative organizations, the public organizations, private sectors, NGOs, and other volunteers in the community should form a network of community health communication with public health officers as coordinators or supporters for the integrated health communication.

In terms of communication factors for successful health communication, the findings in this study were also correlated to previous studies on community health communication such as those conducted by Naruemol Chaidee (2009, pp. 509-
The studies found that the factors that constituted success were the integration of two-ways communication and one-way communication. Similarly, two communication methods must be integrated. These methods are 1) Transmission Model, which centered on persuasive communication and transfer of information from senders, and 2) Ritualistic model, which focused on promoting mutual understanding between senders and receivers based on the current circumstances in the community. Moreover, the successful factors for health communication must include a strong network among skillful health communicators from the public health organizations, local administrative organizations, private sectors, NGOs, and the public. It the meantime, community people involved with health communication through participatory communication, must focus on networking along with the support from external individuals or organizations.

6.2.3.2 Messages and Channels

“The varieties of media” were centered on in community health communication. Also “available objects in the communities” were applied as the “media.” They included specialized media, personal media, community media, and activities media such as the public address, transmitting towers, village cafes, Lamtad, long drum making, old object weaving, notices, 3 dimensional media, A4 papers, T-shirts, stickers, bicycles, and calendars in which pictures of activities in the communities and community leaders or public health officers were featured. Besides, community people were promoted as “personal media.” These people included the public health officers, hospital officers, officers in sub-district health promotion hospital, local leaders, local administrative officers, community heads, public health volunteers, people who had been ill, and child public health volunteers. In terms of messages it was found that they were correlated and targeted at raising awareness of health threats, how to protect them, their treatment, and how to promote good health. Besides, the messages were readjusted to serve the community needs and taste. Also they were suitable for the current circumstances, social contexts, and culture of the communities. The findings were in line with those discovered by the national health
communication scholars such as Naruemol Chaidee (2009, pp. 509-531), Wasana Chansawang et al. (2005, pp. 95-108), Kanjana Kaewthep (2009a, pp. 53-55, pp. 422-423), Duangporn Kamnoonwatana, Yindee Joranasomboon, and Niyanan Sampao-ngen (2006, pp. 44-52), Duangporn Kamnoonwatana, Porntip Usuparat, and Sunida Siwapathomchai (2012, pp. 98-115), Rangsima Nilobol (2004, pp. 228-246), as well as international scholars such as Berrigan (1979, pp. 10-13), Heldman, Schindelar, and Weaver (2013, pp. 2-8), Ratzan (1998, pp. 34-38). These experts maintained that health communication must include “varieties of media.” 5 types of community health communication media were outlined. These are explained as follows: 1) community media centered on providing information and knowledge to serve the community needs. Everybody had opportunities to participate in producing the media. The integral aim of the media was to strengthen the community through, i.e. the application of traditional media, community mass media, transmitting towers, local radios, and notices; 2) specialized media included the media in special events such as T-shirts for alcohol drink campaign, or “media for specific audience” including the Internet which was for adolescence or working age people as well as provisional media such as media for alcohol banning during The Buddhist Lent Day were also included; 3) personal media such as public health officers, local officers, and the public leaders who taught people, gave them suggestion, and advise of how to promote their health and others in the community; 4) activity media tended to be employed in health commination or in other developing tasks due to the high level of participation they could provide. These media ranged from media for camping exhibitions, planting activity, or health markets; and 5) new media, were also influential in health communication. They included the Internet, Facebook, and YouTube. In terms of the messages for health communication, they must contain the following characteristics, which were range from 1) the media in the community must be adjusted to serve their aims; 2) the media must be ubiquitous so that people could gain information, knowledge, or entertainment; 3) community people must have adequate opportunities to take their diverse roles such as planners, producers, and active audience; 4) the media must transfer information to people and could be used as channels for exchanging of information; and 5) the content must be derived from the people in the community to serve their needs and taste. In addition it must be
correlated to the current disease and health threats situations as well as the social and cultural contexts of the communities.

6.2.3.3 Networking Channels

In this study “health network” is no longer limited to the cooperation among the officers in Department of Disease Control, provincial public health officers, or hospital. However, it includes the people from local administrative organizations, governmental and private organizations, NGOs, and the internal and external public who cooperated and collaborated in every step of community health communication. The practices of how people performed tasks together as teamwork resulted in “membership” and “partnership”, who participated in health communication. People realized that health communication could not be performed exclusively by a certain organization as in the past. It was found that network in the three research settings had originated from each “individual/ organization” that came together and formed a network; partners in other professions provide resources, personnel, and funding. This was congruent to the notion of experts in communication for development and health communication in Thailand such as Pramaha Suthis Apakaro (2004, pp. 84-91), Kriengsak Chareonwongsak (2000, pp. 36-44), Kanjana Kaewthep (2009a, pp. 400-404, pp. 418-419), Uthaiwan Sukimanil (2005), Duangporn Kamnoonwatana, Yindee Joranasonboon, and Niyanan Sampaosangen (2006, pp. 195-221), Napaporn Moonmuang (1995, pp. 67-77), Rangsima Nilobol (2004, pp. 228-246), Poldej Pinprathip (2002, pp. 40-47), and other foreign experts such as Berlo (1969, pp. 41-51). The scholars proposed that the channel is the medium used to send the message to the receivers. Channels were not limited to “media” such as mass media, specialization media, personal media, activity media, or new media. However, space and time were included. Therefore, networking of people in the research settings could be taken as the channel of communication among the various components. The network exceedingly covered broader areas than the “media.” This was because how people form a network evolved with time and space in which the communication took place. The network was defined as a type of collaboration in which individuals/organizations/countries, who had their own resources, targets, and means to perform tasks, worked together to complete a mission and form a network. While the members centered their focus on interaction for exchanging of ideas, the
more they interacted, the more they were highly integrated. In the meantime, in performing health communication tasks a network must be created and developed in a certain area. The members should include public health officers, local leaders, community heads, local administrative officers, public organizations, and other volunteers. The public health officers took a role as coordinators and supporters for the integration of every sector in health communication. In line with this, partners could promote the strength of the network. These partners included external individuals, groups, organizations, or institutes that the network would request for assistance or collaboration when needed.

6.2.3.4 Receivers

In line with the new paradigm of health every sector had opportunities to play their roles in health communication tasks. This resulted in the readjustment of how to perform the tasks of public health officers. They paid more attention to boosting participation and needed to depend more on support from the partnership, especially from the public sector and local administrative organizations. From being the passive audience, now they participated more in health communication by being public health volunteers, volunteers, elderly care volunteers, SRRT members, and provincial/district/sub-district health committee. Also the public had changed their behavior to deal with simple illnesses by themselves. They searched for information about the treatment prior to seeing the doctors or public health officers. Similarly, they adjusted their health behavior to keep away from illnesses. They avoided too sweet, greasy, and salty food, do exercise, reduce smoking or drinking habits. Moreover, people relied more on herbs and alternative medicine. Regarding the receivers’ roles it was found that the public performed all the 3 levels of participatory communication. First, as active audience the public leaders had opportunities to share their ideas, respond while conducting activities or projects, and suggest on the format and contents of the media. At the same time they could also become senders as speakers sharing how they cure an illness, as a reporter through public address, as planners or policy makers through project plan writing for the community or health projects. The senders, who were “inside and close to the community people,” gave suggestion, and performed as good role models. They could encourage and inspire people to be more active in conducting healthcare. The people would realize that if
the leader could do it, then they could do it as well. Similarly, the leaders were “opinion leaders” for the community people. They encouraged people to do exercise or participate in projects or health activities. These were congruent to the findings of Thai experts such as Auranich Chitsawang (2006, pp. 99-104), Kanjana Keawthep et al. (2000, pp. 55-57), Kanjana Keawthep (2004, pp. 18-20), Kanjana Keawthep (2009, pp. 84-85, pp. 141-142), Kanjana Keawthep et al. (2013, pp. 171-174), Duangporn Kamnoonwatana, Yindee Joranasomboon, and Niyanan Sampao-ngen (2006, pp. 44-52), Duangporn Kamnoonwatana et al. (2010, pp. 92-109), Thapin Patcharanuruk (2005, pp. 161-173), Parichart Sthapitanonda (2006, pp. 201-203), as well as international experts such as Burgoon (1974, pp. 36-43); Germov (2002, pp. 169-171), Manyozo (2012, pp. 244-247), Sharma (1992, pp. 16-20); Stansfeld (2000).

The scholars proposed a new paradigm of health or health communication paradigm which centered on “active roles of self” in performing healthcare prior to having illnesses, seeking for healthcare information to keep fit. “Good health” focused more on “holistic health.” To put it simply having good health involved with the balance and relationship among the body, mind, society, and soul of an individual. Besides, this new paradigm was in line with healthcare through alternative medicine. As a result from the failure of Bio-Medicine to solve complicated health problems, alternative medicine, local wisdom, as well as self-reliance medication became new choices for people to perform healthcare by themselves. The practices included treatments and healthcare through the application of herbs, equality between the treatment providers and the patients, or more interaction between the two parties. Moreover, alternative medicine referred to the practices of self in sharing information, experiences, and treatment to their family members, relatives, friends, and the community to assure the body and mind maturation. It was also found that the people in the three research settings performed correspondingly to the concepts of participatory communication. This was the influential factor for successful community health communication. According to the concept, it was found that every sector participated in all the 3 levels: 1) as audience/ receivers/ users people were “the audience who watch, see, listen to, and read” from the media and had opportunities to reflect their feedbacks as active audience; 2) as senders/ producers/ co-producers/ performers they had opportunities to take parts in media production, for example, to
become data sources, involve with selection of content, become presenters or speakers; and 3) as policy makers/ planners the people planned and direct the communication policies for a certain project or activities. The participation tended to deal with groups or communities. Therefore, each process must be designed to assign tasks to individuals and when they should conduct the tasks. In doing such tasks, all of the three communication components namely: 1) active audience, 2) producers/presenters, and 3) planners/policy makers must be designed based on the aims or objectives of each project or activity. Each individual in the community participated directly in some activities, while some was done indirectly through the community representatives who represented the whole community. The direct and indirect participation was accounted as genuine participation. Moreover, the incidents in which the personal media sharing the information, were in same group and close to the community people, resulted in the presence of homophily. For example, when the personal media who lead the exercise were the elderly and the receivers were in the same age, they seemed to match each other better than the ones who were heterophily. The findings were also in line with the Two-Step Flow of Information and Opinion Leader concepts. That is to say a sender (S1) in a project namely, “Local Media for the Well-Being,” was a “personal medium” who transferred knowledge to teenagers (R1) who were related to the local media. After that these teenagers became “personal media, senders, or opinion leaders” (S2) and interacted with other teenagers who were initially not interested in the local media (R2) in order to change their attitude.

6.2.4 The Congruence between the Measurement Model and the Structural Equation Model of Communication Factors for Health Communication of Community with Empirical Data

6.2.4.1 Latent Variables of Communication Factors comprised of observed variables, which included frequencies of exposure to health information from community media (S1), health communication skills and knowledge (S2), positive attitude toward health communication (S3), and the awareness of social and cultural contexts of health communication (S4). The observed variables of communication components were obtained from the Concepts of Media in Community, Communication Components, and the qualitative results.” Based on
previous studies of Thai experts such as Wasana Chansawang et al. (2005, pp. 95-108), Kanjana Keawthep (2009a, pp. 53-55, pp. 422-423), Duangporn Kamnoonwatana et al. (2010, pp. 98-115), Duangporn Kamnoonwatana et al. (2012, pp. 195-221), Rangsima Nilobol (2004, pp. 228-246), Suttipa Wongyala (2000, pp. 111-123) as well as some international experts such as Arroyave (2012, pp. 195-196), Berrigan (1979, pp. 10-13), Heldman, Schindelar, and Weaver (2013, pp. 2-8), Manyozo (2012, pp. 233-248), Ratzan (1998, pp. 34-38), Suggs and Ratzan (2012, pp. 250-260) These experts had been devoted in studying community health communication. They found that communication components could become causal variables that resulted in successful health behavior in a certain community due to the “varieties of media.” The experts also proposed that channels for health communication in a community included: 1) community media that provided information and knowledge to serve the community needs and opportunities for them to participate in community communication, also the media empowered the community by using local media, local mass media, transmitting towers, local radios, and notices; 2) specialization media referred to a certain activity such as T-shirts for an alcohol drink banning campaign during the Buddhist Lent Day, special media like the Internet for teenagers or office workers, and etc. Provisional media such as the media for alcohol drink banning campaign during the Buddhist Lent Day were added; 3) personal media that included public health officers, local officers, and the public leaders who play their roles in teaching making recommendation and suggestion of how to perform healthcare; 4) activities media were employed widely in modern health communication and development tasks due to plenty of participation opportunities they provided for the receivers such as the media for camping, planting activities, and health market; and 5) new media that were greatly influential in modern health communication. They included the Internet, Facebook, Line, and You Tube. Regarding the aims of media usage the following aspects were discovered: 1) the media must be adjusted to serve the community objectives; 2) they must be ubiquitous for information and knowledge seeking or sources of entertainment; 3) community people could take their participatory roles as planners, producers, and active audience; and 4) they must be tools for information transfer and correlated to disease or health threat situations as well as the social and cultural contexts of the settings. Besides, it was found that the channels
were not the only factors that constituted successful communication. It is just one of the components. In contrast all the 4 communication components must be taken into account - 1) senders, 2) messages, 3) channels, and 4) receivers. The elements were presented in a well-known model namely, “S-M-C-R.” Focusing exclusively on senders, it was found that they required to have the following qualities: 1) communication skills or abilities to encode messages including correct spoken language, abilities to simplify them, appropriate facial expressions or nonverbal cues, charming speaking styles, and abilities to write; 2) knowledge involved about what is communicated and understanding of the topics. When senders had much knowledge, the health communication was successful; 3) attitudes referred to that of the senders toward the receivers and the topic of communication. It was found that when the senders admitted to what they were communicating or had positive attitudes, they were likely to be confident and performed it better; and 4) social system and culture encompassed senders’ value, beliefs, religion, and social and cultural contexts of the settings.

6.2.4.2 Latent Variable of Community Satisfaction in regards to Acquiring Health Communication Information consisted of 4 aspects ranging from the attainment of health information that serve their needs (Gra1), availability of up-to-date information, knowledge and suggestion about health promotion (Gra2) opportunities to perform two-ways and participatory communication (Gra3), and the format and content of the media and a good role model of the health communication senders. The variables were based on “Uses and Gratifications Theory and Concepts of Media Exposure and the qualitative results of the study” which were proposed by Burgoon (1974, pp. 152-154), Kanjana Kaewthep (2009a, pp. 289), Schramm (1973, pp. 126-135), McQuail (2005, pp. 425-429), Wenner (1982). These scholars investigated media exposure behavior of individuals and found that receivers would be satisfied provide that the information was in line with their previous attitudes or values. Also the information must broaden their knowledge with prompt suggestions. Besides, it must be centered on the social interest, which could encourage more participation. The variables were also correlated to the qualitative results of this study which suggested that the satisfaction of health communication of people in the communities. This was resulted from the exposure to up-to-date, versatile, fast, and prompt health
information that was in line with the current health situation in the community and can serve the community needs. Similarly, the satisfaction levels would be raised when the senders had interesting presentation skills and become good role models on what they were presenting. Similarly, satisfaction from the new knowledge they did not know previously such as knowledge about the emerging or re-emerging infectious disease, and new vaccine. Moreover, two-ways communication and personal media could result in higher satisfaction rates as people could simultaneously ask questions, respond, and exchange opinions with senders who were public health officers. In addition the collaboration among people who are close in project planning or health activities was also important.

6.2.4.3 Latent Variables of Roles of Personal Media as Health Communication Leaders contained of 4 other variables which included the roles as health promotion models (RM1), the roles as knowledge transferors and inspiration providers (RM2), the roles as coordinators who linked related organizations together and supporters of health promotion activities (RM 3), and the roles as listeners and service mind in performing health communication tasks. The variables were obtained from the study of “the roles of personal media and the qualitative results” which were congruent with the studies of Thai experts such as Rangsima Nilobol (2004, pp. 228-246), Uthaiwan Sukimanil (2005), Amornrat Tiplert et al. (2006, pp. 135-150), and some international experts such as Manyozo (2012, pp. 241-248). These experts found that personal media in health communication must play their roles as coordinators who connected the community to other organizations. They served as representatives who connected the community to the outside world, as instructors who taught and made suggestion of how to perform self-healthcare and the people under control, as supporters of campaigns for health problems prevention, as good coordinators who linked relating organizations together and boost closer relationship with the community. They were perceived as one who realized significant of teamwork, as leaders for the changes of health facets, who strengthened the community’s health, and as good health role models. Besides, good health leaders must be highly responsible for and had service mind. They were required to realize that health communication is for everyone. The proposal was in line with the qualitative findings in this study which revealed that all sectors such as 1) public health officers, 2)
community leaders, 3) public health volunteers, 4) people who had been ill, and 5) relatives or family members who had taken care of patients could become health communication leaders. They believed that the roles were not limited to those public health officers. However, the leaders must regularly take care of themselves, had no preventable diseases, opened to opinions and sharing, had service mind, were able to transfer knowledge and made suggestion, inspired people, and encourage more awareness of healthcare performances.

6.2.4.4 Latent Variables of Participatory Communication in Community Health Communication consisted of 4 other observed variables. They included: all the 3 levels of participation (Part 1), the exchange of beneficial health information to all parties (Part 2), equality of all people or organizations in health communication (Part 3), and decentralization of health content form public health officers to the related parties (Part 4). The variables were developed from “Participatory Communication Theory and the qualitative results of this study.” They were correlated to the notions by many experts such as Kanjana Kaewthep et al. (2000, pp. 55-57), Kanjana Kaewthep (2009a, pp. 141-142), Kanjana Kaewthep et al. (2013, pp. 171-174); Manyozo (2012, pp. 244-247). These experts proposed that participatory communication centered at generating “sharing,” mutual understanding, feeling and experiences, as well as cooperation. Two-ways communication with feedbacks was performed and resulted in dynamic communication. Role shifting between senders and receivers occurred. Also related people were equal, while the content was related or beneficial for all parties. Only one or more channels could be used regardless of the media types. The communication was decentralized to all parties. The flows of information were surrounded including the top-down, bottom-up, and linear flows. Moreover, participatory communication must take into account all the 3 levels of participation: 1) participation as the audience, receivers, or users referred to the circumstances in which individuals has opportunities to make use of the media as “the audience, watchers, viewers, listeners, or readers,” while the channels for reflecting their responses to the senders were provided; 2) participation as senders, producers, cooperators, or performers involved opportunities for individuals to take roles in media production processes such as being by being the data sources, taking roles in content selection, being presenters or speakers; and 3) participation as policy makers
planners referred to planning for or identification of policies for communication projects or activity management. Kanjana Kaewthep (2004, pp. 18-20) proposed that most of the participation was performed in-group or community levels. Each stage must be designed, for example, who was going to participate in a specific time. This also correlated to the qualitative findings, which revealed that all sectors in the communities realized that their highest scores assessed by DHS, Office of Disease Prevention and Control Region 1, Bangkok as well as the achievement of The Best Active District for Long-term Disease Protection Award in 2014 resulted from their teamwork. For them the “team” was not restricted to the collection of public health officers in the Office of Disease Prevention and Control, provincial public health organizations, district public health organizations, or hospitals. However, these officers from the local administrative organizations, governmental organizations, private sectors, NGOs, and the public were included. These people collaborated and supported each other in performing all kinds of community health communication. The teamwork among all sectors both the public health and the non-public health organizations constituted “network membership” and “partnership” in health communication. People had more awareness that health communication could not exclusively performed by only one organization as in the past.

6.2.4.5 Latent Variables of Health Communication Behavior consisted of 2 other observed variables which included; health behavior in health behavior in abnormal situations and the dependence on public health officers (Health 1), and health behavior in normal situations and self-reliance (Health 2). The variables were developed based on “Health Communication and the qualitative results.” Health behavior was classified in accordance with the three health paradigms as follows: 1) health behavior based on Health Education Paradigm, 2) health behavior based on Health Promotion Paradigm, and 3) health behavior based on Health Communication Paradigm. The underlying reason why there were only 2 sub-variables instead of three according to the theory resulted from the synthesis of the qualitative results within the three research settings. A new finding which was incongruent to Health Communication was found. The variation had become a criterion for categorizing health behavior. First, 1) health behavior in abnormal situations and the dependence on public health officers were discovered and the correlation between the two health paradigms so
called “Health Education and Health Promotion Paradigms” was revealed. It was found that people depended on the public health officers in abnormal situations, for example, during outbreaks or the occurrence of re-emerging or emerging diseases in the communities. Similarly, when people had serious illnesses, they were required to follow the instruction of the officers and cooperated with them according to “Health Education Paradigm.” Besides, in the situations in which there was tendency of an outbreak in the community or when people tended to perform risky behavior, the public health officers rolled out their attempts in “preventing” rather than “healing”. This included mask wearing to protect respiratory diseases or vaccination against diphtheria, tuberculosis, influenza, or screening for diabetes, high blood pressure, or breast cancer. There was flexibility and openness for all people to become health communicators. However, they were required to be trained by provincial public health officers, district public health officers, and sub-district health promotion officers. Meanwhile, the public health officers in the community worked on their attempts in adjusting the media or content in brochures, leaflets, posters/projects from the central organizations to be suitable for their settings and social and cultural contexts as well as the disease situations and health threats in the communities. Moreover, persuasive participatory communication was also performed by the officers through projects or activities. They could hold a meeting and the public leaders could put forward their ideas about the aforementioned media so that the messages were in line with the social and cultural contexts as well as the taste of the community. This was congruent with “Health Promotion Paradigm.” In contrast 2) health behavior in normal situations relied greatly on the individual. The behavior was performed in normal situations. Individuals must always be active in performing healthcare initially when they were healthy to keep fit and promote their health by exercising, eating healthy food, and avoiding too sweet, greasy, and salty food to prevent illnesses. They could rely on alternative medicine such as herb use, massages, steam and warm compress, acupuncture, or meditation. These people were always ready for any health threats, which is in line with “Health Communication paradigm.” Many experts clarified these phenomenon. They included Somsuk Hinviman (2003, pp. 115-121), Kanjana Kaewthep et al. (2013, pp. 217-242), Duangporn Kamnoonwatana et al. (2007, pp. 195-221), Duangporn Kamnoonwatana, Niyanan Sampao-ngern, and Sunida Siwaphomchais
The experts addressed the Health Education explaining that people were dependent public health professionals such as doctors, nurses, and public health officers. One-way communication must be conducted from the officers to the public. The aims of the paradigm were to transfer knowledge, change attitude and behavior, which can be paired with K-A-P, while the target group was people with illnesses with known or unknown disease causes. This is similar to Health Promotion Paradigm. Even though public health volunteers could become the sharers of knowledge, they were required to be trained by the central organizations. However, it has been observed that there is an initial shift of stance to focus “prevention” rather than “healing” such as vaccination. Besides, “community media” were employed for health promotion. The public health officers applied persuasive strategies along with the participatory ones. The target group was healthy people who prefer to promote their immunity by getting vaccination or to screen for disease at the early stages. Finally, according to Health Communication, which is the latest paradigm for health communication, “active roles of self” was on the focus. The individual must be responsible for his/her own health prior to illnesses. This new theory is in line with alternative medicine perspective. Due to the limitations of Bio-medicine in effectively dealing with complicated physical or mental problems, alternative medicine, local medicine, as well as self-reliance had become choices for people who prefer to perform holistic healthcare. These treatments focused on the balance and correlation, assimilation, and dependence among physical, mental, and social dimensions. In the meantime, the analysis of the Structural Equation Model of communication factors for participatory in community health communication revealed some correlation to the empirical data. It was found from the Path Coefficient of latent variables in the model that the components of had no direct influence on community people’s health behavior. However, they indirectly had positive influences on their behavior based on their satisfaction of the information, health leaders, and participation in communication. Meanwhile, the components had no direct influence on people’ health behavior, whereas they indirectly influenced health behavior of the people. This could be explained by K-A-P theory. In terms of the theory, Orawan Pilanthaowat (2011, pp.
Surapong Sothanasatien (1990, pp. 118-123) proposed that attitude was the interactive medium between knowledge and behavior. For them the factors that resulted in attitudes changes were: 1) component of communication such as qualification of the senders, messages, channels, and receivers’ opinion toward those components, and 2) the exposure to information through personal media, mass media, or new media could also resulted in the changes of attitude and lead to the intended behavior of the senders. Although this depended on the degree of correlation of “the channels” and “the messages “and the previous knowledge and attitudes of the receivers, when the correlation was high, the intended behavior increased. K-A-P model explained the Structural Equation Model relationship among the components of communication and the channels (referred to as components of communication variable in other studies). This resulted in the change of attitude (referred to as satisfaction variables on media exposure in community health communication) and led to the intended behavior expected by the senders (referred to as the variables of roles of personal media as health communication leaders, participatory communication in community health communication, and health behavior of community people). In addition the Structural Equation Model could be explained by TRA Theory. Regarding the theory, Ajzen and Fishbein (1980, pp. 5-10), Orawan Pilanthaowat (2011, pp. 49-50), clarified that the underlying causes of people behavior laid in their intention. The intention to behave depended on two factors: 1) the attitude toward the behavior which relied on the belief about it and the positive or negative consequences to individual due to taking the action, and 2) consideration about how people who are significant to self-perceive the behavior as subjective norms. Besides, the theory clarified that health behavior of an individual resulted from the belief in the benefits of the health performances such as having good health or no outbreak in the community. When they had such belief, positive attitude toward healthcare, intention to follow the instruction, participation in health communication, and appropriate health behavior could be constituted. These factors were behavioral variables in this study. Moreover, the consideration of other’s opinions on self or subjective norms could be linked to the practices of using people “in the same group who were close to the community people” to make suggestion and become good role models in performing healthcare. Under the circumstances the receivers could realize
that they would have better health. In addition there would be no outbreak in the community when they follow health communication guidelines. Then they paid more attention to health promotion, which led to participatory communication and appropriate behavior in necessary situations. The receivers would realize that if the leaders could promote their health, then they could also do it as well.

Moreover, the results regarding factors which influence on community health communication were congruent to those of the experts, who conducted survey studies, content analysis, meta-analysis, participatory research (PAR) to investigate effectiveness or influences of communication components on community health communication. These experts included Thai scholars such as Naruemol Chaidee (2009, pp. 509-531), Auranich Chitsawaeng (2006, pp. 99-104), Kanjana Kaewthep et al. (2013), Duangporn Kamnoonwatana, Yindee Joranasomboon, and Niyanan Sampao-ngen (2006, pp. 44-52), Duangporn Kamnoonwatana et al. (2008, pp. 195-221), Duangporn Kamnoonwatana et al. (2012, pp. 98-111), Napaporn Moonmuang (1995, pp. 67-77), Rangsima Nilobol (2004, pp. 228-246), Poldej Pinprathip (2002, pp. 40-47), and some other international scholars such as Heldman, Schindelar, and Weaver (2013, pp. 2-8), King (1981, pp. 75-79), Neuhauser and Kreps (2011, pp. 10-12), Northouse and Northouse (1992), Suggs and Ratzan (2012, pp. 250-260). Besides, the results regarding factors, which influence the community health communication, were also in line with the qualitative results of this current study. This confirmed that the Communication Components could become effective and empirical causal variables for health behavior generation. It was found that “media in the community”. This included the public health officers, local administrative officers, community leaders, public health volunteers and NGO officers or community media, mass media, activities media, specialized media, and new media, together with qualifications of the senders which included skills and knowledge, attitude toward the receivers and health communication tasks, as well as the awareness of social and cultural contexts of the senders were the causal variables that constituted community health behavior. They indirectly resulted in satisfaction from media exposure which included the satisfaction on the presentation of up-to-date, various, fast, and modern information which was correlated to health situations in the community. Besides, the satisfaction involved the sharing of health information to other people, which could be
accounted as roles of personal media. These are leaders of health communication, roles models for health promotion, transferring of knowledge, inspiring people to perform healthcare cooperating with and supporting relating organizations, and having service mind. Moreover, the satisfaction affected participatory health communication in the community. It was found that all sectors participated in all the three levels of participation, which included media production, selection and presentation of the messages, arrangement of projects and activities by public health officers. The local administrative officers shared their ideas about the types and content of the original media or activities. They also gained knowledge, suggestion, and had opportunities to exchange opinions on the public health problems with the officers. Moreover, they also involved with arrangement of plans or projects to obtain funding or became public health volunteers. The aforementioned three variables led to health behavior in a certain community, which correlated to the current health issues. To sum up it was found that communities performed health behavior according to all the three health paradigms and each would be effective in certain situations depending on suitability.

Ultimately, researcher could integrate both quantitative and qualitative results and exhibited in the form of diagram:
Figure 6.10 Synthesis between Quantitative and Qualitative Results Communication Factors for Health Communication of Community
From Figure 6.10 revealed that communication factors effecting community health behavior both in quantitative and qualitative results found 1) Media in community exposure, i.e. traditional, personal and new media including opinions of people relevant to community health communication on qualifications of media in community, 2) Community satisfaction toward qualifications of media in community related to health communication information, and 3) Participatory communication effecting community health behaviour. What’s more, it was found that these factors’ i.e. causal variable and intermediate variables are “interrelated.” To put it simpler, not only the exposure of community media results in the degree of satisfaction after obtaining the information, the satisfaction generates more exposure or the interest of being a leader in health communication. Similarly, the more people are interested in being health communication leaders, the more participation is performed, and the more participation results in more interest to become health communication leaders, etc.

6.3 Part III: Recommendations

6.3.1 Recommendations for Policy Implementations

1) All sectors should be allowed to participate in identifying assessment criteria for DHS, since the assessment criteria were created by executives in Bureau of Planning, Department of Disease Control without participation from other sectors. The Department of Disease Control, Ministry of Public Health should ensure that all sectors involved with health communication both from central and regional public health officer representatives and local administrative organization officer representatives and leaders from people sector cooperate in planning DHS policy and set assessment criteria both the main indicators and sub indicators which will be used as the assessment criteria for “Disease Control Competent Districts.”

2) Community leaders, village health volunteers, ones who got ill and recovered, including relatives/family members who take care of the patients should be provided with opportunities to develop their health communication skills. Most of them may have good background in communication thus boosting their confidence. They have leadership potential and people in the community rely on them. The
community is likely to succeed in competent health communication if these people receive the opportunity for communication development following the concept of Communication Arts. In addition, this group of people can expand the success to nearby areas.

3) Public health officers, local administrative organization officers, community leader and village health volunteers, “one who had been ill, including relatives/one who takes care of the patients” should be the leaders in leading other sectors to understand that the health communication works are duties involving with every department and organization. They should realize that everyone is “the host” for individual health promotion.

6.3.2 Recommendations for Future Practice

1) Office of Disease Prevention and Control, 1st area, Bangkok and provinces under its supervision should employ the developed and examined the structural equation model of communication factor for health communication of community. The organization should deploy a pilot and apply the findings to the areas. This can be expanded to other areas, which have similar media, social and cultural contexts.

2) The findings of this study should be applied to be health communication manual for urban areas or activity model based on the quantitative and qualitative research results that correlate with social and cultural contexts of each area in developing concept of sustainable community health communication of large urban areas.

3) New media, such as Line, Facebook, email, and website should be used in health communication since most people access social network and use these media more continuously in health communication. However, health information forwarded in social network must be from reliable sources. The unreliable messages must not be forwarded. People must evaluate whether the information is correct or not. The information must be rechecked from reliable website or public health officers.
6.3.3 Recommendations for Future Research

1) There should be continuous research in the three areas by employing participatory action research. The researcher must stay in the area for at least one month, visit community together with officers and village health volunteers, participate in projects/health activities including attend the meetings, exchange opinions both from officers and leaders from people sector for the researcher. This is important in the process to know new perspectives from emic perspective and etic perspective to get the in-depth, round and clear information and know about the relationship between components of each variable more profoundly. This might result in new findings according to Grounded theory.

2) A discussion of the Structural Equation Model of communication factors to promote participatory communication in creating community health behavior should be performed in a focus group interview with people who involve in community health communication in order to discover whether the community will agree with the developed model.

3) The future research should cover other awarded areas under supervision of the Office of Disease Prevention and Control to investigate whether the communication factor contexts and community health communication methods are different from urban areas.

4) Aside from public health sector, local administrative organization and people, qualitative data should also be collected from other sectors, such as provincial administration, local media, police, schools, Non-Governmental Organizations (NGOs) or Private Organizations who participated in project/community health activity.
BIBLIOGRAPHY


Department of Disease Control, Bureau of Planning. (2014). *Disease control competent district under district health system: (DHS)*. Nonthaburi: Bureau of Planning, Department of Disease Control. (In Thai)


Kanjana Kaewthep. (2004). Participatory communication in health operation: View of communication arts. In Kanjana Kaewthep, Somsak Chunharas, Duangporn Kamnoonwatana, Porntip Yenjabok, & Patanaphong Chatiketa (Eds.), *New century of participatory health communication* (pp. 5-24). Bangkok: Thai Health Promotion Foundation. (In Thai)


Parichart Sthapitanonda et al. (2006). *Participatory communication and community development: From concepts to practices in Thai society*. Bangkok: TRF. (In Thai)


Sungworn Ngadkratoke. (2014). *Structural equation model for social science research*. Unpublished manuscript, School of Educational Studies, Sukhothai Thammathirat Open University, Bangkok, Thailand. (In Thai)


APPENDICES
APPENDIX A

QUESTIONNAIRE
QUESTIONNAIRE

The Title of “The Development of a Structural Equation Model of Communication Factors for Health Communication of Community”

This questionnaire is a part of doctoral dissertation, the degree of
Doctor of Philosophy (Communication Arts & Innovation)
National Institute of Development Administration

Specific Definition Explanations

1. Health Communication: means people depend on health education professionals such as doctors, nurses, or public health staff or aims to prevent than heal illnesses, for instance, vaccination. In addition, community media is employed with regard that its health content is correlated to the community culture; moreover, they participate in health communication operations such as being public health volunteer, health committee, health volunteer, Surveillance and Rapid Response Team (SRRT), member of health project or activity, or content exhibitor etc.

2. Media in Community: composed of: (1) personal media such as public health officers, regional civil servants, local administrators, public health volunteers, community leaders, recovered patients, NGOs’ officers members, teachers, students, neighbours, relatives, and the public; (2) specialized media: such as brochures, leaflets, vinyl board, poster, 3Ds media, stickers, calendars, bicycles, and publicity vehicles; (3) community media: including local media, wire broadcasting/transition towers, local televisions, local radios, public health meetings, and village cafes; (4) mass media: such as televisions, and newspapers; (5) activity media: for instance meetings, trainings, plan preparing/projects and health activities; and (6) new media: such as websites, search engines including Google/ Yahoo and applications such as LINE, Facebook, and Youtube
Please answer the question in the blank (…) or mark ✓ into □ in front of the desired option

Recruited question
1. Have you ever exposed health communication information from media in community?
   1) □ Yes, ever  2) □ No, never

Part I Respondents’ Demographic Characteristics

1.1 Gender
   1) □ Male  2) □ Female

1.2 Age …….. Years old

1.3 Educational Level
   1) □ Elementary education  2) □ Junior secondary
   3) □ Senior secondary/Vocational education
   4) □ Diploma/ Associated degree
   5) □ Bachelor’s degree  6) □ Higher than Bachelor’s degree

1.4 Occupation/Subordinated agencies (Please select only 1 choice)
   1) □ Public health officer
   2) □ Local administrative officer
   3) □ Provincial government officer/ School/ State enterprises officer/ and Other government agencies
   4) □ Public health volunteer and Community leader
   5) □ Private sector officer/ Entrepreneur
   6) □ Student
   7) □ Other (Please specify…………………………………………………………..)

1.5 Average Income per month
   1) □ Lower than 10,000 Baht  2) □ 10,001 - 20,000 Baht
   3) □ 20,001 - 30,000 Baht  4) □ 30,001 - 40,000 baht
   5) □ More than 40,000 Baht
Part II Communication Factors

1.1 Frequency of Media Exposure Related to Health Communication Information

<table>
<thead>
<tr>
<th>Type of Media in Community</th>
<th>Frequency of Media Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Personal media</strong> who are Public health officers, i.e. 1) Provincial health officer, 2) District health officer, 3) Physician, 4) Nurse, 5) Hospital officer, and 6) Sub-district hospital officer</td>
<td>Lowest Low Neutral High Highest</td>
</tr>
<tr>
<td><strong>2. Personal media</strong> who are Municipal officer and Sub-district administrative officer</td>
<td></td>
</tr>
<tr>
<td><strong>3. Personal media</strong> who work in Government agencies and School, i.e. 1) Chief district officer, 2) Deputy district chief, 3) Officers of Ministry of Social Development and Human Security, and 4) teacher</td>
<td></td>
</tr>
<tr>
<td><strong>4. Personal media</strong> who are health communication leader of public sector, i.e. 1) Public health volunteer, 2) Community leader, 3) Junior public health volunteer, and 4) Philosopher villager</td>
<td></td>
</tr>
<tr>
<td><strong>5. Personal media</strong> who are Non-Governmental Organizations (NGOs)</td>
<td></td>
</tr>
<tr>
<td><strong>6. Other personal media</strong> (Please specify…………………………………. )</td>
<td></td>
</tr>
<tr>
<td><strong>7. Community media</strong>, i.e. 1) wire broadcasting, 2) community radio, 3) community television, 4) sub-district and village-level community health conference, 5) coffeehouse forum, 6) doing tom-tom craft and antique basketry, and 7) displaying Thai-style antiphon</td>
<td></td>
</tr>
<tr>
<td><strong>8. Mass media</strong>, i.e. television and newspaper</td>
<td></td>
</tr>
<tr>
<td><strong>9. Activity media</strong>, i.e. 1) conference, 2) giving an instruction, 3) drafting community health plan, 4) screening for diabetes, blood pressure, and breast cancer, 5) group exercise, and 6) joining as public health volunteer in “Home-bound and bed-bound patients visit network”, “Prevention and resolution of traffic accident network”, and “Control of alcohol intake network”</td>
<td></td>
</tr>
</tbody>
</table>
### Type of Media in Community

<table>
<thead>
<tr>
<th>Frequency of Media Exposure</th>
<th>Lowest</th>
<th>Low</th>
<th>Neutral</th>
<th>High</th>
<th>Highest</th>
</tr>
</thead>
<tbody>
<tr>
<td>10. <strong>Specialized media</strong>, i.e. brochure and pamphlet, writing message in A4 paper, warning letter, academic book, poster and vinyl, warning sign for traffic, sticker, calendar, car news, and 3D media</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. <strong>New media</strong>, i.e. Website, search engines such as Google and Yahoo, E-mail, and Applications such as Line, Facebook, and Youtube</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 1.2 Providing Health Communication Information of Media in Community

<table>
<thead>
<tr>
<th>Providing health communication information of media in community</th>
<th>Level of Agreement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Media in community help him/her realizing the importance of health care both physical and mental strength.</td>
<td>Strongly disagree</td>
</tr>
<tr>
<td>2. Media in community are able to transmit health communication message that easily understand.</td>
<td></td>
</tr>
<tr>
<td>3. Public health officer, public health volunteer, and recovered patient have health communication knowledge well.</td>
<td></td>
</tr>
<tr>
<td>4. Media in community help him/her having knowledge and understanding to care and promote his/her health better.</td>
<td></td>
</tr>
<tr>
<td>5. Media in community help him/her strength his/her health since he/she was healthy.</td>
<td></td>
</tr>
<tr>
<td>6. Municipal officer and sub-district administrative officer who accentuate on community health communication will make locals see the importance of health care better.</td>
<td></td>
</tr>
<tr>
<td>7. Municipal officer and sub-district administrative officer who accentuate on community health communication will make locals participate in health communication project or activity better.</td>
<td></td>
</tr>
<tr>
<td>8. Media in community accentuate on operating in relation to health communication project or activity.</td>
<td></td>
</tr>
<tr>
<td>9. Poster, brochure, pamphlet, and activity are designed correspondingly to health risk circumstances of community.</td>
<td></td>
</tr>
</tbody>
</table>
Providing health communication information of media in community

<table>
<thead>
<tr>
<th>Level of Agreement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly disagree</td>
</tr>
<tr>
<td>Disagree</td>
</tr>
<tr>
<td>Neutral</td>
</tr>
<tr>
<td>Agree</td>
</tr>
<tr>
<td>Strongly agree</td>
</tr>
</tbody>
</table>

10. Poster, brochure, pamphlet, and activity are designed media form and content which come from locals’ needs.

---

Part II  Role of Personal Media in order to Be Health Communication Leader in Community

<table>
<thead>
<tr>
<th>Level of Agreement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly disagree</td>
</tr>
<tr>
<td>Disagree</td>
</tr>
<tr>
<td>Neutral</td>
</tr>
<tr>
<td>Agree</td>
</tr>
<tr>
<td>Strongly agree</td>
</tr>
</tbody>
</table>

1. Health communication leader can be any persons not only public health officers, but also community leader, public health volunteer, recovered patient, and patient care taker.

2. Public health officer, public health volunteer, and recovered patient always care and strength their health and can be a role model of health promotion.

3. Public health officer, public health volunteer, and recovered patient receive the cooperation from public health agencies, local administration agencies, including various health network both within and outside community.

4. Public health officer, public health volunteer, and recovered patient participate in projects, activities, or network related to community health communication.

5. Public health officer, public health volunteer, and recovered patient can suitably give useful information and suggestions related to health care and prevention to locals.

6. Public health officer, public health volunteer, and recovered patient can communicate in order to make locals aware of the importance of caring and strengthen their health.

7. Public health officer, public health volunteer, and recovered patient open the opportunity to locals to respond their needs and listen their opinions during conference, doing activity, or talking in daily life.

8. Public health officer, public health volunteer, and recovered patient have willingness to work related to health communication for the public benefit.
Part III Community Satisfaction on account of Acquiring Health Communication Information

<table>
<thead>
<tr>
<th>Community Satisfaction</th>
<th>Level of Community Satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Lowest</td>
</tr>
<tr>
<td>1. General satisfaction toward design of community health communication media</td>
<td></td>
</tr>
<tr>
<td>2. General satisfaction toward design of community health communication message</td>
<td></td>
</tr>
<tr>
<td>3. Satisfaction toward public health officer, public health volunteer, and recovered</td>
<td></td>
</tr>
<tr>
<td>patient in relation to be a role model of health promotion.</td>
<td></td>
</tr>
<tr>
<td>4. Satisfaction toward moderator, or presenter in relation to present attractive health</td>
<td></td>
</tr>
<tr>
<td>communication message and can be a role model of health promotion.</td>
<td></td>
</tr>
<tr>
<td>5. Satisfaction toward various health communication information corresponding to</td>
<td></td>
</tr>
<tr>
<td>community situation and locals’ taste.</td>
<td></td>
</tr>
<tr>
<td>6. Satisfaction toward health communication information in relation to help reminding</td>
<td></td>
</tr>
<tr>
<td>what he/she has ever known before.</td>
<td></td>
</tr>
<tr>
<td>7. Satisfaction toward obtaining up-to-date and timely health communication information</td>
<td></td>
</tr>
<tr>
<td>i.e. emerging disease, recurring disease, or production of new vaccine.</td>
<td></td>
</tr>
<tr>
<td>8. Satisfaction toward health communication information in relation to acquirement new</td>
<td></td>
</tr>
<tr>
<td>health knowledge that he/she has never known before.</td>
<td></td>
</tr>
<tr>
<td>9. Satisfaction toward health communication information and suggestions that help</td>
<td></td>
</tr>
<tr>
<td>them to care his/her health more than the past.</td>
<td></td>
</tr>
<tr>
<td>10. Satisfaction toward exchanging health communication information to others and be</td>
<td></td>
</tr>
<tr>
<td>able to help them caring his/her health more than the past.</td>
<td></td>
</tr>
<tr>
<td>11. Satisfaction toward being an initiator of activity or project in relation to</td>
<td></td>
</tr>
<tr>
<td>promote locals’ health.</td>
<td></td>
</tr>
<tr>
<td>12. Satisfaction toward locals perceive his/her potential in relation to operate health</td>
<td></td>
</tr>
<tr>
<td>communication task.</td>
<td></td>
</tr>
<tr>
<td>Community Satisfaction</td>
<td>Level of Community Satisfaction</td>
</tr>
<tr>
<td>---------------------------------------------------------------------------------------</td>
<td>--------------------------------</td>
</tr>
<tr>
<td>13. Satisfaction toward to be a moderator or content exhibitor in relation to community health communication.</td>
<td></td>
</tr>
<tr>
<td>14. Satisfaction toward integrating with community in relation to operate health communication task.</td>
<td></td>
</tr>
<tr>
<td>15. Satisfaction toward acquiring health communication information instantly through exchanging opinion and questioning.</td>
<td></td>
</tr>
<tr>
<td>16. Satisfaction toward person with whom they coordinate listen his/her feedbacks in relation to health communication operation.</td>
<td></td>
</tr>
</tbody>
</table>

**Part IV  Participatory Communication in Community Health Communication**

<table>
<thead>
<tr>
<th>Participatory communication</th>
<th>Level of Participatory Communication</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Lowest</td>
</tr>
<tr>
<td>1. Acquirement of health communication information from media in community.</td>
<td></td>
</tr>
<tr>
<td>2. Having an opportunity to express opinions with public health officer and other locals in relation to health communication.</td>
<td></td>
</tr>
<tr>
<td>3. Having an opportunity to share opinions in relation to design of poster, brochure, sticker, cloth, vinyl, including messages within these media.</td>
<td></td>
</tr>
<tr>
<td>4. Having an opportunity to express his/her opinions during health communication activity.</td>
<td></td>
</tr>
<tr>
<td>5. Having a participation as a designer of poster, brochure, sticker, cloth, vinyl, including messages within these media.</td>
<td></td>
</tr>
<tr>
<td>6. Having a participation as an initiator of activity or project for health promotion.</td>
<td></td>
</tr>
<tr>
<td>7. Having a participation as a content exhibitor in activity or wire broadcasting for health promotion.</td>
<td></td>
</tr>
<tr>
<td>8. Having participation in drafting a community plan, activity, or project for health promotion.</td>
<td></td>
</tr>
<tr>
<td>9. Health communication information exchanging with public health officer and others have benefits</td>
<td></td>
</tr>
</tbody>
</table>
## Participatory communication

<table>
<thead>
<tr>
<th>Participatory communication</th>
<th>Level of Participatory Communication</th>
</tr>
</thead>
<tbody>
<tr>
<td>for his/herself including be able to adapt with community.</td>
<td>Lowest      Low       Neutral   High   Highest</td>
</tr>
<tr>
<td>10. Having an opportunity to exchange opinions or feelings in relation to his/her family members’ illness with physician, nurse, public health officer, or public health volunteer.</td>
<td>Low         Neutral   High     Highest</td>
</tr>
<tr>
<td>11. Community accepts his/her presented messages or opinions in relation to health communication during activities including talking in daily life.</td>
<td>Neutral     High      Highest</td>
</tr>
<tr>
<td>12. Public health officer give an opportunity to every person and sector within community to be an exhibitor for health caring.</td>
<td>Neutral     High      Highest</td>
</tr>
<tr>
<td>13. Listening family members and relatives in relation to how to care for a patient including their limitations and needs.</td>
<td>Neutral     High      Highest</td>
</tr>
<tr>
<td>14. Local administrative agencies, district agencies, private agencies, including public sector participate in health communication operation more than the past.</td>
<td>Neutral     High      Highest</td>
</tr>
</tbody>
</table>

## Part V Health Behavior of Community

<table>
<thead>
<tr>
<th>Health Behavior</th>
<th>Level of Agreement/ Practice</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Receiving medical treatment immediately with physician, nurse, or public health officer when he/she got a little illness.</td>
<td>Lowest          Low       Neutral   High   Highest</td>
</tr>
<tr>
<td>2. Health communication operation is only a responsibility of public health officer.</td>
<td>Lowest          Low       Neutral   High   Highest</td>
</tr>
<tr>
<td>3. Stress or deteriorated environment don’t effect on the illness.</td>
<td>Lowest          Low       Neutral   High   Highest</td>
</tr>
<tr>
<td>4. The beginning to focus on health care when got health risks such as high blood pressure, or sugar and cholesterol exceed standard criteria, or already got ill.</td>
<td>Lowest          Low       Neutral   High   Highest</td>
</tr>
<tr>
<td>5. Acquirement of instruction from public health officer outside community such as Office of Disease Prevention and Control, 1st area, Bangkok and Hospital outside community in order to prevent disease and control including strength his/her health.</td>
<td>Lowest          Low       Neutral   High   Highest</td>
</tr>
<tr>
<td>Health Behavior</td>
<td>Level of Agreement/ Practice</td>
</tr>
<tr>
<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>----------------------------</td>
</tr>
<tr>
<td>6. Accentuation on prevention; for example, vaccination for tetanus prevention, screening diabetes, blood pressure, breast cancer, and put on mask prevention.</td>
<td>Lowest</td>
</tr>
<tr>
<td>8. Public health officer, local administrative officer, district officer, private sector, and public sector are able to administrate and manage health communication network and activity as well.</td>
<td></td>
</tr>
<tr>
<td>9. Participation in health communication operation, i.e. being public health volunteer, health committee, health volunteer, Surveillance and Rapid Response Team (SRRT), member of health project or activity, or content exhibitor in relation to community health communication.</td>
<td></td>
</tr>
<tr>
<td>9. Participation in health communication operation, i.e. being public health volunteer, health committee, health volunteer, Surveillance and Rapid Response Team (SRRT), member of health project or activity, or content exhibitor in relation to community health communication.</td>
<td></td>
</tr>
<tr>
<td>10. Healthy person had to consist of not only physical strength, but also wellness of mind, spiritual, and good relation with environment.</td>
<td></td>
</tr>
<tr>
<td>11. Health communication is involved with everyone, every group, and every agency.</td>
<td></td>
</tr>
<tr>
<td>12. Accentuation on behavioral adaptation in order to avoid illness since he/she still was healthy such as avoiding useless food including salty, sweety, and fatty food, avoiding smoking or taking alcohol and exercise more.</td>
<td></td>
</tr>
<tr>
<td>13. The utilization of alternative medicines, i.e. using herbs for illness treatment, meditation, or having brown rice.</td>
<td></td>
</tr>
<tr>
<td>14. Caring of him/herself and other locals in community are able to practice in everywhere that is not limited to practice within public health agencies only.</td>
<td></td>
</tr>
<tr>
<td>15. Grouping of doing activity or exercise and talking with persons who has similar characteristics help to care his/her health better.</td>
<td></td>
</tr>
</tbody>
</table>

Thanking You for Your Kind Cooperation
แบบสอบถาม
เรื่อง "การพัฒนาโมเดลเสริมสร้างเสริมวัฒนธรรมสุขภาพของชุมชน"

แบบสอบถามนี้เป็นเครื่องมือในการเก็บรวบรวมข้อมูลของนักศึกษาหลักสูตรปรัชญาดุษฎีบัณฑิตสาขาวิชาการพัฒนาบริหารศาสตร์และนวัตกรรม คณะนิเทศศาสตร์และนวัตกรรมการจัดการ สถาบันบัณฑิตพัฒนบริหารศาสตร์จึงขอให้ความร่วมมือในการตอบแบบสอบถามและขอขอบพระคุณในการร่วมมือมาณ โอกาสนี้

การอธิบายคำศัพท์ที่ใช้ในแบบสอบถาม

1) การสื่อสารสุขภาพ (Health communication) หมายถึง

- การที่ท่านได้รับความช่วยเหลือ/ความรู้/คำแนะนำจากเจ้าหน้าที่สาธารณสุขในการป้องกันควบคุมโรคและการสร้างเสริมสุขภาพ
- การมีความคิดในการป้องกันควบคุมโรค เช่น การสวมหน้ากากป้องกัน การฉีดวัคซีน และการตรวจคัดกรองโรค
- การมีความกระตือรือร้นในการดูแลสร้างเสริมสุขภาพตนเองให้สมบูรณ์แข็งแรงทั้งทางร่างกายและจิตใจมากกว่าการ "ซ่อมแซม" เมื่อเจ็บป่วยแล้ว
- การมีส่วนร่วมในงานสื่อสารสุขภาพของชุมชน เช่น การเป็น อสม. จิตอาสา คณะกรรมการสุขภาพ ทีมที่ระดับส่งเสริมเคลื่อนที่เร็ว (SRRT) การร่วมผลิตสื่อในชุมชน และการร่วมกิจกรรมที่เกี่ยวกับการสื่อสารสุขภาพในชุมชน

2) สื่อในชุมชน (Community media) หมายถึง สื่อทุกชนิดที่ใช้ในชุมชนไม่ว่าจะเป็นตัวบุคคลเอง สื่อมวลชน สื่อพื้นบ้าน หรือเครื่องมือการสื่อสารต่างๆ เข้าถึงในชุมชนไม่ว่าจะเป็นแผ่นพับ ใบปลิว ป้ายโปสเตอร์ สื่อ 3 มิติ สติ๊กเกอร์ จักรยาน และรถประชาสัมพันธ์
- สื่อชุมชน ได้แก่ สื่อพื้นบ้าน เสียงตามสาย โทรทัศน์ท้องถิ่น วิทยุชุมชน การประชุมประชาชนสุขภาพ และสถานะสุภาพ
- สื่อมวลชน ได้แก่ โทรทัศน์ และหนังสือพิมพ์
- สื่อการเมือง ได้แก่ การประชุม อบรม การเขียนแผน/โครงการ และการจัดกิจกรรมต่าง ๆ ที่เกี่ยวกับสุขภาพ
- สื่อใหม่ ได้แก่ เว็บไซต์ การใช้โปรแกรมในการค้นหาข้อมูล (Search engine) เช่น เว็บไซต์ Google/ Yahoo และแอพพลิเคชั่นต่าง ๆ เช่น ไลน์ เฟซบุ๊ก และยูทูบ

กรุณาตอบคำถามหรือที่มีจงหมาย ถูกใน ( ) หน้าข้อที่คิดเห็นถูก
ท่านเคยรับรู้ข่าวสารเกี่ยวกับการสื่อสารสุขภาพจาก "สื่อในชุมชน" หรือไม่

1) □ เคย  2) □ ไม่เคย

ส่วนที่ 1 คำถามเกี่ยวกับข้อมูลด้านประชากรศาสตร์ ได้แก่ เพศ อายุ การศึกษา หน่วยงาน/อาชีพ และรายได้เฉลี่ยต่อเดือน

1.1 เพศ

1) □ ชาย  2) □ หญิง

1.2 อายุ ........... ปี

1.3 การศึกษา

1) □ ประถมศึกษา  2) □ มัธยมศึกษาตอนต้น
3) □ มัธยมศึกษาตอนปลาย/ ประช.  4) □ อนุปริญญา/ปวส.
5) □ ปริญญาตรี  6) �□ สูงกว่าปริญญาตรี

1.4 หน่วยงาน/อาชีพ (เลือกตอบได้เพียง 1 ข้อ)

1) □ เจ้าหน้าที่สาธารณสุข
2) �□ เจ้าหน้าที่องค์กรปกครองส่วนท้องถิ่น (อบพ.)
3) �□ เจ้าหน้าที่ราชการส่วนภูมิภาค/โรงเรียน/รัฐวิสาหกิจ/หน่วยงานราชการอื่น ๆ
4) �□ อาสาสมัครสาธารณสุข (อสม.)/ ผู้นำชุมชน
5) �□ พนักงานหน่วยงานเอกชน/เจ้าของกิจการ
6) □ นักเรียน/นักศึกษา
7) □ อื่นๆ (โปรดระบุ..............................................................)

1.5 รายได้โดยเฉลี่ยต่อเดือน

1) □ ต่ำกว่า 10,000 บาท
2) □ 10,001 - 20,000 บาท
3) □ 20,001 - 30,000 บาท
4) □ 30,001 - 40,000 บาท
5) □ มากกว่า 40,000 บาท

ส่วนที่ 2 ปัจจัยการสื่อสาร

2.1 ข้อมูลเกี่ยวกับความถี่ในการเปิดรับข่าวสารเกี่ยวกับการสื่อสารสุขภาพของผู้ที่เกี่ยวข้องกับการสื่อสารสุขภาพในชุมชนผ่านช่องทางการสื่อสารที่เป็นสื่อในชุมชน

<table>
<thead>
<tr>
<th>ความถี่ในการเปิดรับข่าวสารเกี่ยวกับการสื่อสารสุขภาพจากสื่อในชุมชน</th>
<th>ระดับความถี่</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>มากที่สุด (5)</td>
</tr>
</tbody>
</table>

1. สื่อบุคคล เขียนตามที่บุคคล (ข้อ 1.1-1.6) นำเสนอข้อมูลข่าวสารเกี่ยวกับการสื่อสารสุขภาพผ่านการประชุม/การอบรม/การจัดกิจกรรม/โครงการ/และการพูดคุยในชีวิตประจำวัน

1.1 เจ้าหน้าที่สาธารณสุข ได้แก่ 1) เจ้าหน้าที่สาธารณสุขจังหวัด 2) เจ้าหน้าที่สาธารณสุขอำเภอ 3) แพทย์/พยาบาล 4) เจ้าหน้าที่ในโรงพยาบาลประจำจังหวัด/อำเภอ/ศูนย์สุขภาพ/โรงพยาบาลส่งเสริมสุขภาพระดับต่ำบล

1.2 เจ้าหน้าที่องค์กรปกครองส่วนท้องถิ่น ได้แก่ 1) เจ้าหน้าที่เทศบาล 2) เจ้าหน้าที่องค์กรบริหารส่วนต่ำบล

1.3 เจ้าหน้าที่ราชการส่วนภูมิภาค/หน่วยงานราชการ/โรงเรียน ได้แก่ 1) นายอำเภอ 2) ปลัดอำเภอ 3) เจ้าหน้าที่กระทรวงพัฒนาสังคมและความมั่นคงของมนุษย์ (พม.) 4) ครู/อาจารย์
ความต้องการเปิดรับข่าวสารเกี่ยวกับการสื่อสารสุขภาพจากชุมชน

<table>
<thead>
<tr>
<th>ระดับความถี่</th>
<th>มากที่สุด</th>
<th>มาก</th>
<th>ปานกลาง</th>
<th>น้อย</th>
<th>น้อยที่สุด</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.4 ผู้นำการสื่อสารสุขภาพภาคประชาชน ได้แก่</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>1) อาสาสมัครสาธารณสุข หรือ อสม.</td>
<td>2) ผู้นำชุมชน/ประชาชนชุมชน</td>
<td>3) อาสาสมัครสาธารณสุขที่เป็นเด็ก (อสม.น้อย)</td>
<td>4) ประชาชนร่วมบ้าน</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1.5 เจ้าหน้าที่องค์กรพัฒนาเอกชน (NGOs)

1.6 สื่อของประชาชน

(.................................................................)

2. สื่อชุมชน ได้แก่ 2.1) เสียงตามสาย/หอกระจายข่าว 2.2) สภาพที่รัฐบาลออกเสียงตามสาย 2.3) การประชุมประชาชนสุขภาพระดับต่างๆ 2.4) สภาพแวดล้อม 2.5) โทรศัพท์ 2.6) วิทยุชุมชน 2.7) สังคม 2.8) การทำกิจกรรม 2.9) การอัดเสียงของเข้า

3. สื่อมวลชน ได้แก่ 3.1) โทรทัศน์ 3.2) หนังสือพิมพ์

4. สื่อสื่อการ ได้แก่ 4.1) การประชุม/อบรม 4.2) การเขียนแผน/โครงการสุขภาพชุมชน 4.3) การตรวจสอบคุณภาพ 4.4) การวิจัย 4.5) การรวมกลุ่มของกิจกรรม 4.6) การเขียนข้อความในกระดาษ A4 4.7) การควบคุมการบริโภคเครื่องดื่มและอาหาร 4.8) การป้องกันและสู้กับปัญหาอุบัติเหตุทางถนน

5. กลุ่มสื่อสื่อทางการ ได้แก่ 5.1) ใบปลิว/แผ่นพับ 5.2) การเขียนข้อความในกระดาษ A4 5.3) จดหมายเชิญตีต้อน 5.4) หนังสือ/ตัววิชิทำง 5.5) ป้ายสติกเกอร์/วิชิทำง 5.6) ป้ายเตือนในการจราจร 5.7) บนประชาสัมพันธ์ 5.8) สัตว์ 5.9) ปฏิทิน 5.10) สื่อ 3 มิติ

6. สื่อใหม่ ได้แก่ 6.1) เว็บไซต์ 6.2) การใช้โปรแกรมในการสืบค้นข้อมูล (Search engine) เช่น เว็บไซต์ Google/ Yahoo 6.3) เอกสาร 6.4) แอพพลิเคชันต่างๆ เช่น ไลน์ เฟซบุ๊ก ยูทูบ เป็นต้น
2.2 ข้อมูลเกี่ยวกับความคิดเห็นของผู้ที่เกี่ยวข้องกับการสื่อสารสุขภาพในชุมชนต่อการให้ข้อมูลข่าวสารเกี่ยวกับการสื่อสารสุขภาพของสื่อในชุมชน

<table>
<thead>
<tr>
<th>ความคิดเห็นของคนในชุมชนต่อการให้ข้อมูลข่าวสารเกี่ยวกับการสื่อสารสุขภาพของสื่อในชุมชน</th>
<th>ระดับความคิดเห็น</th>
</tr>
</thead>
<tbody>
<tr>
<td>เพื่อตัวเลขมาเกิดสุด</td>
<td>เพื่อตัวเลขมาเกิดสุด</td>
</tr>
<tr>
<td>1. สื่อในชุมชนทำให้ท่านเห็นความสำคัญของการดูแลสุขภาพตนเองให้แข็งแรงทางกายและจิตใจ</td>
<td>(5)</td>
</tr>
<tr>
<td>2. สื่อในชุมชนสามารถน่ายทอดเนื้อหาเกี่ยวกับการสื่อสารสุขภาพให้ท่านเข้าใจได้ได้ง่าย</td>
<td></td>
</tr>
<tr>
<td>3. เจ้าหน้าที่สาธารณสุข  อสม. และผู้ที่เคยป่วยแล้ว หายมีความรู้เรื่องการสื่อสารสุขภาพเป็นอย่างดี</td>
<td></td>
</tr>
<tr>
<td>4. สื่อในชุมชนทำให้ท่านมีความรู้ความเข้าใจในการดูแลสร้างเสริมสุขภาพตนเองมากขึ้น</td>
<td></td>
</tr>
<tr>
<td>5. สื่อในชุมชนช่วยให้ท่านดูแลสร้างเสริมสุขภาพตนเองให้แข็งแรงตั้งแต่ยังไม่เจ็บป่วย</td>
<td></td>
</tr>
<tr>
<td>6. เจ้าหน้าที่เทศบาลและเจ้าหน้าที่ อบต. ที่เห็นถึงความสำคัญของการดูแลสร้างเสริมสุขภาพทำให้คนในชุมชนเห็นความสำคัญของการดูแลสุขภาพมากขึ้น</td>
<td></td>
</tr>
<tr>
<td>7. เจ้าหน้าที่เทศบาลและเจ้าหน้าที่ อบต. ที่เห็นถึงความสำคัญของการดูแลสร้างเสริมสุขภาพทำให้คนในชุมชนเข้ามามีส่วนร่วมในโครงการ/กิจกรรมด้านสื่อสารสุขภาพเพิ่มมากขึ้น</td>
<td></td>
</tr>
<tr>
<td>8. สื่อในชุมชนทำให้ท่านเห็นความสำคัญของการดูแลสุขภาพ/โครงการกิจกรรม/ที่เกี่ยวกับการสื่อสารสุขภาพของชุมชน</td>
<td></td>
</tr>
</tbody>
</table>
ความคิดเห็นของคนในชุมชนต่อการให้ข้อมูลข่าวสารเกี่ยวกับการสื่อสารสุขภาพของสื่อในชุมชน

<table>
<thead>
<tr>
<th>ระดับความคิดเห็น</th>
<th>เก่งด้วยมากที่สุด</th>
<th>เก่งด้วย</th>
<th>ปานกลาง</th>
<th>ไม่เก่งด้วย</th>
<th>ไม่เก่งด้วยมากที่สุด</th>
</tr>
</thead>
<tbody>
<tr>
<td>9. โปสเตอร์ แผ่นพับ ใบปลิว และโครงการ/กิจกรรมต่างๆ มีการออกแบบตัวสื่อมีเนื้อหาที่สอดคล้องกับสถานการณ์ตัวโรคและภัยสุขภาพที่ชุมชนประสบอยู่</td>
<td>(5)</td>
<td>(4)</td>
<td>(3)</td>
<td>(2)</td>
<td>(1)</td>
</tr>
<tr>
<td>10. โปสเตอร์ แผ่นพับ ใบปลิว และโครงการ/กิจกรรมต่างๆ มีการออกแบบตัวสื่อมีเนื้อหาที่มาจากความต้องการของคนในชุมชน</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2.3 ข้อมูลเกี่ยวกับความคิดเห็นของผู้ที่เกี่ยวข้องกับการสื่อสารสุขภาพในชุมชนต่อบทบาทหน้าที่ของเจ้าหน้าที่สุข ผู้นำชุมชน อสม. คนที่เคยเจ็บป่วยแล้วหาย ญาติ/คนในครอบครัวที่ดูแลผู้ป่วยในการเป็นแกนนำด้านการสื่อสารสุขภาพ

<table>
<thead>
<tr>
<th>ระดับความคิดเห็น</th>
<th>เก่งด้วยมากที่สุด</th>
<th>เก่งด้วย</th>
<th>ปานกลาง</th>
<th>ไม่เก่งด้วย</th>
<th>ไม่เก่งด้วยมากที่สุด</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. แกนนำด้านการสื่อสารสุขภาพของชุมชนสามารถเป็นบุคคลที่มีชื่อเสียงเจ้าหน้าที่สารสนเทศได้เขียนคู่มือชุมชน อสม. คนที่เคยเจ็บป่วยแล้วหาย ญาติ/คนในครอบครัวที่ดูแลผู้ป่วยเป็นต้น</td>
<td>(5)</td>
<td>(4)</td>
<td>(3)</td>
<td>(2)</td>
<td>(1)</td>
</tr>
<tr>
<td>2. เจ้าหน้าที่สารสนเทศ อสม. ผู้ที่เคยเจ็บป่วยแล้วหาย (จากข้อ 1) ดูแลสุขภาพของตนเองให้เจ็บป่วย อยู่เสมอ และสามารถเป็นแบบอย่างด้านการ มีสุขภาพที่ดีให้กับคนในชุมชนได้</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3. เจ้าหน้าที่สาธารณสุข อสม. ผู้ที่เคยเจ็บป่วยแล้วหาย (จากข้อ 1) ได้รับความร่วมมือเป็นอย่างดีจากหน่วยงานสาธารณสุข องค์กรปกครองส่วนท้องถิ่น รวมถึงเครือข่ายสุขภาพต่าง ๆ ทั้งในและนอกชุมชนในการทำงานด้านการสื่อสารสุขภาพ

4. เจ้าหน้าที่สาธารณสุข อสม. ผู้ที่เคยเจ็บป่วยแล้วหาย (จากข้อ 1) ส่งเสริมการมีส่วนร่วมในโครงการ/กิจกรรม/เครือข่ายที่เกี่ยวกับการสื่อสารสุขภาพในชุมชน

5. เจ้าหน้าที่สาธารณสุข อสม. ผู้ที่เคยเจ็บป่วยแล้วหาย (จากข้อ 1) สามารถให้ข้อมูลความรู้และคำแนะนำในการดูแลสุขภาพและการป้องกันโรค แก่คนในชุมชนได้เป็นอย่างดี

6. เจ้าหน้าที่สาธารณสุข อสม. ผู้ที่เคยเจ็บป่วยแล้วหาย (จากข้อ 1) สามารถสื่อสารให้คนในชุมชน หน่วยงานที่เกี่ยวข้องในการดูแลสุขภาพของตนเองให้สมบูรณ์ขึ้นได้

7. เจ้าหน้าที่สาธารณสุข อสม. ผู้ที่เคยเจ็บป่วยแล้วหาย (จากข้อ 1) เปิดโอกาสให้ท่านได้คิด รับฟังความรู้ที่มีอยู่ในการทำงานด้านการสื่อสารสุขภาพการพัฒนาการดูแลสุขภาพของประชาชน

8. เจ้าหน้าที่สาธารณสุข อสม. ผู้ที่เคยเจ็บป่วยแล้วหาย (จากข้อ 1) มีความมั่นใจในการทำงานด้านการสื่อสารสุขภาพเพื่อผลประโยชน์ส่วนรวม
ส่วนที่ 3 ความพึงพอใจในการได้รับข่าวสารเกี่ยวกับการสื่อสารสุขภาพของผู้ที่เกี่ยวข้องกับงานสื่อสารสุขภาพในชุมชน

<table>
<thead>
<tr>
<th>ความพึงพอใจในการได้รับข่าวสารเกี่ยวกับการสื่อสารสุขภาพของคนในชุมชนจาก &quot;สื่อในชุมชน&quot;</th>
<th>ระดับความพึงพอใจ</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>มากที่สุด (5)</td>
</tr>
<tr>
<td>1. ท่านพึงพอใจโดยรวมต่อการออกแบบสื่อในชุมชนในการสื่อสารสุขภาพ</td>
<td></td>
</tr>
<tr>
<td>2. ท่านพึงพอใจโดยรวมต่อเนื้อหาต้นการสื่อสารสุขภาพของสื่อในชุมชน</td>
<td></td>
</tr>
<tr>
<td>3. ท่านมีความพึงพอใจต่อความเป็นแบบอย่างที่ดีในการดูแลสุขภาพของเจ้าหน้าที่สาธารณสุข ผู้ม. และผู้ที่เคยเจ็บป่วยแล้วหาย</td>
<td></td>
</tr>
<tr>
<td>4. ท่านพึงพอใจในการได้รับข้อมูลข่าวสารเกี่ยวกับการสื่อสารสุขภาพที่มีความหลากหลายสอดคล้องกับความต้องการของท่าน และสถานการณ์ของชุมชน</td>
<td></td>
</tr>
<tr>
<td>5. ท่านพึงพอใจในการได้รับข้อมูลข่าวสารเกี่ยวกับการสื่อสารสุขภาพที่มีความหลากหลายสอดคล้องกับความต้องการของท่าน และสถานการณ์ของชุมชน</td>
<td></td>
</tr>
<tr>
<td>6. ท่านมีความพึงพอใจในการได้รับข้อมูลข่าวสารเกี่ยวกับการสื่อสารสุขภาพที่มีความรวดเร็ว ทันต่อเหตุการณ์ และมีความทันสมัย เช่น เรื่องโรคอุบัติใหม่ อุบัติซ้ำและการผลิตวัคซีนใหม่ๆเป็นต้น</td>
<td></td>
</tr>
</tbody>
</table>
## ความพึงพอใจในการได้รับข้อมูลข่าวสารเกี่ยวกับสื่อสารสุขภาพของคนในชุมชนจาก “สื่อในชุมชน”

<table>
<thead>
<tr>
<th>ระดับความพึงพอใจ</th>
<th>มากที่สุด(5)</th>
<th>มาก(4)</th>
<th>ปานกลาง(3)</th>
<th>น้อย(2)</th>
<th>น้อยที่สุด(1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>8. ท่านพึงพอใจในการได้รับข้อมูลข่าวสาร/คำแนะนำที่เกี่ยวกับการสื่อสารสุขภาพที่ทำให้ท่านได้รับความรู้ใหม่ๆ ที่ไม่เคยทราบมาก่อน</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. ท่านพึงพอใจในการได้รับข้อมูลข่าวสาร/คำแนะนำที่เกี่ยวกับการสื่อสารสุขภาพที่ทำให้ท่านได้รับดูแลสุขภาพตนเองเพิ่มมากขึ้น</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. ท่านพึงพอใจในการนำข้อมูลข่าวสารที่เกี่ยวกับการสื่อสารสุขภาพไปแนะนำ/แลกเปลี่ยนกับบุคคลอื่นๆ ให้ท่านดูแลสุขภาพตนเองเพิ่มมากขึ้น</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. ท่านมีความพึงพอใจในการที่ได้มีส่วนเป็นผู้วิ่งนำโครงการ/กิจกรรมที่เกี่ยวกับการส่งเสริมสุขภาพ</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. ท่านพึงพอใจที่คนในชุมชนเห็นถึงความสามารถของท่านในการทำงานด้านการสื่อสารสุขภาพ</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. ท่านพึงพอใจในการที่ได้เป็นผู้นำเสนอเนื้อหาวิทยากรในกิจกรรมการสื่อสารสุขภาพของชุมชน</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. ท่านพึงพอใจในการที่ได้ร่วมกลุ่มกันบนที่ใกล้ชิดในการทำงานโครงการ/กิจกรรมที่เกี่ยวกับการสื่อสารสุขภาพ</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. ท่านพึงพอใจในการได้รับข้อมูลข่าวสารเกี่ยวกับการสื่อสารสุขภาพเนื่องจากท่านสามารถติดตามข้อมูลส่งเสริมสุขภาพและแลกเปลี่ยนความคิดเห็นได้ทันที</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
ความพึงพอใจในการได้รับข่าวสารเกี่ยวกับการสื่อสารสุขภาพของคนในชุมชนจาก “สื่อในชุมชน”

<table>
<thead>
<tr>
<th>ระดับความพึงพอใจ</th>
<th>มากที่สุด (5)</th>
<th>มั่น (4)</th>
<th>ปานกลาง (3)</th>
<th>น้อย (2)</th>
<th>น้อยที่สุด (1)</th>
</tr>
</thead>
</table>

16. ท่านพอใจที่บุคคลที่ท่านพูดคุย/ติดต่อประสานงานได้รับสิ่งที่มีความสินคัดหน้าจากการทำงานสื่อสารสุขภาพ

ส่วนที่ 4 การสื่อสารแบบมีส่วนร่วมในการสื่อสารสุขภาพของผู้ที่เกี่ยวข้องกับการสื่อสารสุขภาพในชุมชน

<table>
<thead>
<tr>
<th>การสื่อสารแบบมีส่วนร่วมในการสื่อสารสุขภาพของคนในชุมชน</th>
<th>ระดับการมีส่วนร่วม</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>มากที่สุด (5)</td>
</tr>
</tbody>
</table>

1. ท่านได้รับทราบข้อมูลข่าวสารเกี่ยวกับการสื่อสารสุขภาพจากชุมชน

2. ท่านมีโอกาสแสดงความคิดเห็นกับเจ้าหน้าที่สาธารณะและคนในชุมชนเวลาพูดคุยเรื่องการสื่อสารสุขภาพ

3. ท่านมีส่วนร่วมในการแสดงความคิดเห็นเกี่ยวกับแผนพัฒนา ใบปลิว โปสเตอร์ วิโมล สติกเกอร์ ที่ผลิตออกมาเป็นต้นแบบมีการออกแบบและมีเนื้อหาที่ทำให้คนในชุมชนเข้าใจได้ง่ายหรือไม่

4. ท่านมีส่วนร่วมในการแสดงความคิดเห็นเกี่ยวกับโครงการ/กิจกรรมที่เกี่ยวกับการสื่อสารสุขภาพของชุมชน

5. ท่านได้รับข้อมูลข่าวสารจากการสื่อสารสุขภาพในแผ่นพับ ใบปลิว โปสเตอร์ วิโมล สติกเกอร์ เสื้อและเนื้อหาในการพูดเสียงตามสาย
### การสื่อสารแบบมีส่วนร่วมในการสื่อสารสุขภาพของคนในชุมชน

<table>
<thead>
<tr>
<th>การสื่อสารแบบมีส่วนร่วมในการสื่อสารสุขภาพของคนในชุมชน</th>
<th>ระดับการมีส่วนร่วม</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>หมายที่สุด (5)</td>
</tr>
<tr>
<td>6. ท่านมีส่วนร่วมในการกำหนดโครงการ/กิจกรรมในชุมชนที่เกี่ยวกับการสื่อสารสุขภาพ</td>
<td></td>
</tr>
<tr>
<td>7. ท่านมีส่วนร่วมในการเป็นผู้นำเสนอเนื้อหาในโครงการ/กิจกรรม เยี่ยงตามสาย ในชุมชนที่เกี่ยวกับการสื่อสารสุขภาพ</td>
<td></td>
</tr>
<tr>
<td>8. ท่านมีส่วนร่วมในการเขียนแผน/โครงการ/กิจกรรมสุขภาพชุมชน</td>
<td></td>
</tr>
<tr>
<td>9. ข้อมูลข่าวสารด้านการสื่อสารสุขภาพที่ท่านได้แลกเปลี่ยนกับเจ้าหน้าที่สาธารณสุขและคนอื่นๆในชุมชนเป็นประโยชน์กับตัวของท่านเองและนำมาปรับใช้ในชุมชนได้</td>
<td></td>
</tr>
<tr>
<td>10. ท่านได้มีโอกาสแลกเปลี่ยนความคิดเห็น/ความรู้สึก เวลาพูดคุยเรื่องความเจ็บป่วยของตนเองกับครอบครัว/ญาติพี่น้องแพทย์/พยาบาล เจ้าหน้าที่สาธารณสุขและอสม.</td>
<td></td>
</tr>
<tr>
<td>11. ชุมชนให้การยอมรับท่านในการนำเสนอข้อมูล/ความคิดเห็นเกี่ยวกับการสื่อสารสุขภาพในโครงการ/กิจกรรม หรือการพูดคุยในชีวิตประจำวัน</td>
<td></td>
</tr>
<tr>
<td>12. เจ้าหน้าที่สาธารณสุขให้อาสาทุกคนและทุกหน่วยงานในชุมชนในการเป็นผู้นำเสนอวิธีการดูแลสุขภาพ</td>
<td></td>
</tr>
<tr>
<td>13. ท่านรับฟังบุคคลในครอบครัวและญาติพี่น้องของผู้ป่วยที่ท่านไปเยี่ยมบ้านเกี่ยวกับวิธีการดูแลผู้ป่วย ข้อจำกัด และความต้องการของครอบครัวและญาติพี่น้อง</td>
<td></td>
</tr>
<tr>
<td>การสื่อสารแบบมีส่วนร่วมในการสื่อสารสุขภาพของคนในชุมชน</td>
<td>ระดับการมีส่วนร่วม</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>------------------</td>
</tr>
<tr>
<td></td>
<td>มากที่สุด (5)</td>
</tr>
<tr>
<td>14. องค์กรปกครองส่วนท้องถิ่น</td>
<td>อ้างอิงหน่วยงานเอกชน และประชาชนในชุมชนของท่าน</td>
</tr>
</tbody>
</table>

ส่วนที่ 5 พฤติกรรมสุขภาพของผู้ที่เกี่ยวข้องกับการสื่อสารสุขภาพในชุมชน

<table>
<thead>
<tr>
<th>พฤติกรรมสุขภาพ</th>
<th>ระดับการปฏิบัติ/ความคิดเห็น</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>มีการปฏิบัติ/เห็นด้วยสูงมาก (5)</td>
</tr>
<tr>
<td></td>
<td>(5)</td>
</tr>
</tbody>
</table>

1. ท่านมักเข้ารับการรักษาทันทีและขอคำแนะนำจากบุคลากรทางสาธารณสุข เช่น แพทย์ พยาบาลเจ้าหน้าที่สาธารณสุข ในเวลาที่ท่านเจ็บป่วยไม่มากนัก

2. ท่านคิดว่าการสื่อสารสุขภาพเป็นงานที่อยู่ในความรับผิดชอบของเจ้าหน้าที่สาธารณสุขเท่านั้น

3. ท่านคิดว่าความเครียด สังคมและสิ่งแวดล้อมที่เสื่อมโทรมไม่ส่งผลให้ท่านเกิดความเจ็บป่วย

4. ท่านจะเริ่มให้ความสำคัญในการดูแลสุขภาพของตนเองเมื่อท่านเริ่มมีภาวะเสี่ยง เช่น ความดันสูง มีคำน้ำตาล และกรดCHARICOLEในมาตรฐานที่กำหนด หรือเจ็บป่วยแล้ว
<table>
<thead>
<tr>
<th>พฤติกรรมสุขภาพ</th>
<th>ระดับการปฏิบัติ/ความคิดเห็น</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>มีการปฏิบัติ/เห็นด้วยสูงมาก (5)</td>
</tr>
<tr>
<td>5. ท่านได้รับการอบรมจากบุคลากรทางสาธารณสุขภายนอกชุมชน เช่น สำนักงานป้องกันควบคุมโรคที่ 1 กรุงเทพฯ สำนักงานสาธารณสุขจังหวัด และโรงพยาบาลภายนอกอำเภอ ในการป้องกันควบคุมโรคและสร้างเสริมสุขภาพทั้งของตนเองและชุมชน</td>
<td></td>
</tr>
<tr>
<td>6. ท่านให้ความสำคัญกับการป้องกันโรคโดยการสวมหน้ากากอนามัย ตรวจคัดกรองโรคประจำวัน ควบคุมและติดตามซ้ำเพื่อการป้องกันโรคหัดไข้สะบั้นยอด วัณโรค คอตีบ ไข้หวัดใหญ่และบาดทะยัก เป็นต้น</td>
<td></td>
</tr>
<tr>
<td>7. เจ้าหน้าที่สาธารณสุขใช้สื่อในชุมชนในการให้ความทราบให้ท่านรับรู้ความสำคัญและเข้ามามีส่วนร่วมในการทำงานสื่อสารสุขภาพ</td>
<td></td>
</tr>
<tr>
<td>8. เจ้าหน้าที่สื่อสารสุขภาพในกลุ่มที่ชุมชนองค์กรปกครองส่วนท้องถิ่นอำเภอ หน่วยงานเอกชนและประชาชนในกลุ่มของท่านสามารถบริหารจัดการเครือข่าย/โครงการ/กิจกรรมต่างๆ ที่เกี่ยวกับการสื่อสารสุขภาพได้อย่างมีประสิทธิภาพ</td>
<td></td>
</tr>
<tr>
<td>9. ท่านมีส่วนร่วมในงานสื่อสารสุขภาพของชุมชน เช่น การเป็น อสม. ติดอาสา คณะกรรมการสุขภาพ ฟืมฝังระวังสอบสวน</td>
<td></td>
</tr>
<tr>
<td>พฤติกรรมสุขภาพ</td>
<td>ระดับการปฏิบัติ/ความคิดเห็น</td>
</tr>
<tr>
<td>-----------------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td></td>
<td>มีการปฏิบัติ/เห็นด้วยสูงมาก</td>
</tr>
<tr>
<td>เคลื่อนที่เร็ว (SRRT) การเป็นสมาชิกของโครงการ/กิจกรรมที่เกี่ยวกับการสื่อสารสุขภาพ หรือการเป็นผู้นำเสนอในโครงการ/กิจกรรมที่เกี่ยวกับการสื่อสารสุขภาพ</td>
<td>(5)</td>
</tr>
<tr>
<td>10. ท่านคิดว่ามีสุขภาพดีต่อ การมีร่างกายที่แข็งแรง-สภาพจิตใจที่ดี-ความสัมพันธ์ที่ดีกับผู้อื่น-การมีสุขคล่องที่ดี-และการเห็นคุณค่าในตัวเอง</td>
<td></td>
</tr>
<tr>
<td>11. ท่านคิดว่าการสื่อสารสุขภาพเป็นเรื่องที่เกี่ยวข้องกับทุกคน ทุกกลุ่ม ทุกหน่วยงานในชุมชน</td>
<td></td>
</tr>
<tr>
<td>12. ท่านให้ความสำคัญกับการปรับพฤติกรรมเพื่อให้ร่างกายแข็งแรงและดีจิตใจดี ดังนั้นการดูแลสุขภาพดีจึงเป็นปัจจัยสำคัญ ดังนั้นการที่ท่านมีการดูแลรักษาตัวเองและออกกำลังกายมากขึ้น</td>
<td></td>
</tr>
<tr>
<td>13. ท่านใช้บริการแพทย์ทางเลือก เช่น การใช้สมุนไพรในการรักษาโรค การนวด อบประดากิจกรรมส่งเสริมการสร้างสุขภาพ การกินข้าวลดน้ำหนัก ข้าวไรซ์เบอร์รี่ ข้าวสีนิล เป็นต้น</td>
<td></td>
</tr>
<tr>
<td>14. ท่านคิดว่าการดูแลสุขภาพของตัวท่านเองและคนอื่นๆ ในชุมชนสามารถทำได้ทุกสถานที่</td>
<td></td>
</tr>
</tbody>
</table>
พฤติกรรมสุขภาพ

<table>
<thead>
<tr>
<th>ระดับการปฏิบัติ/ความคิดเห็น</th>
<th>มีการปฏิบัติ/เห็นด้วยสูงมาก (5)</th>
<th>มีการปฏิบัติ/เห็นด้วยสูง (4)</th>
<th>มีการปฏิบัติ/เห็นด้วยปานกลาง (3)</th>
<th>มีการปฏิบัติ/เห็นด้วยน้อย (2)</th>
<th>มีการปฏิบัติ/เห็นด้วยน้อยที่สุด (1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>โดยไม่จำกัดแค่ในหน่วยงานของสาธารณสุขเท่านั้น</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. การรวมกลุ่มกันทำกิจกรรมออกกำลังกายและการที่ท่านได้พูดคุยกับบุคคลที่มีความใกล้ชิดกับท่านมีส่วนช่วยให้ท่านดูแลสุขภาพของตนเองได้ดีมากยิ่งขึ้น</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX B
GUIDED QUESTIONS
GUIDED QUESTIONS

Respondents’ Demographic Information
1. Sex
2. Age
3. Education
4. Occupation
5. Native Town

Guided Questions Part I for Responding Research Question No. 1-2: For public health officers who was the assessor of “Excellent District Health System Award” in 2014’s Area-level assessment
1. What and how was your role related to community health communication operation?
2. What were the criteria that you use for selecting the area which received “Excellent District Health System Award” in 2014?
3. Did you think that the Office of Disease Prevention and Control 1st area, Bangkok, had outstanding or different for administrating from other areas? and how?
4. Did you think that locals in (1) Phra Nakorn Sri Ayuthaya district, Phra Nakorn Sri Ayuthaya, (2) Bang Yai district, Nonthaburi, and (3) Nong Sua district, Pathum Thani had sufficient knowledge to care and strength their health properly?
5. Did you think that locals in (1) Phra Nakorn Sri Ayuthaya district, Phra Nakorn Sri Ayuthaya, (2) Bang Yai district, Nonthaburi, and (3) Nong Sua district, Pathum Thani always promote and strength your/their health when they already gotten ill? and why?
6. Did you think that locals in (1) Phra Nakorn Sri Ayuthaya district, Phra Nakorn Sri Ayuthaya, (2) Bang Yai district, Nonthaburi, and (3) Nong Sua district, Pathum Thani think that who or which sectors should be responsible for health communication operation? and why?
7. Did you think that locals in (1) Phra Nakorn Sri Ayuthaya district, Phra Nakorn Sri Ayuthaya, (2) Bang Yai district, Nonthaburi, and (3) Nong Sua district,
Pathum Thani to prevent yourself and your family through vaccination for tetanus prevention, screening diabetes, blood pressure, breast cancer? and why?

8. Did you think that locals in (1) Phra Nakorn Sri Ayuthaya district, Phra Nakorn Sri Ayuthaya, (2) Bang Yai district, Nonthaburi, and (3) Nong Sua district, Pathum Thani had to be instructed by public health officer outside community? and why?

9. Did you think that locals in (1) Phra Nakorn Sri Ayuthaya district, Phra Nakorn Sri Ayuthaya, (2) Bang Yai district, Nonthaburi, and (3) Nong Sua district, Pathum Thani always promote and strength your/their health since they didn’t get ill? and why?

10. Did you think that which media in community and which content in (1) Phra Nakorn Sri Ayuthaya district, Phra Nakorn Sri Ayuthaya, (2) Bang Yai district, Nonthaburi, and (3) Nong Sua district, Pathum Thani that made locals realize about the importance of healthcare efficiently? and why?

11. Did you think that what type of locals and sectors in (1) Phra Nakorn Sri Ayuthaya district, Phra Nakorn Sri Ayuthaya, (2) Bang Yai district, Nonthaburi, and (3) Nong Sua district, Pathum Thani could participate in (1) Audience or express opinion level, (2) Content exhibitor or content presenter level, and (3) Determine and evaluation level? and how?

12. Did you think that what was the main factor that make (1) Phra Nakorn Sri Ayuthaya district, Phra Nakorn Sri Ayuthaya, (2) Bang Yai district, Nonthaburi, and (3) Nong Sua district, Pathum Thani succeed and obtain reward in disease prevention and control according to “2014’s Excellent District Health System Award” policy? and did you think that communication is the one factor for success? and why?

13. Did you think that what were the obstacles to operate community health communication in (1) Phra Nakorn Sri Ayuthaya district, Phra Nakorn Sri Ayuthaya, (2) Bang Yai district, Nonthaburi, and (3) Nong Sua district, Pathum Thani? and why?

14. Did you think that what was the most achievement result to operate community health communication in (1) Phra Nakorn Sri Ayuthaya district, Phra Nakorn Sri Ayuthaya, (2) Bang Yai district, Nonthaburi, and (3) Nong Sua district, Pathum Thani? and why?
Guided Questions Part II for Responding Research Question No. 1: For public health officers who involved in health communication operation

1. Locals had sufficient knowledge to care and strength their health properly?
2. How did you communicate about disease prevention and control including healthcare with locals? and why?
3. How did you communicate and treat with patients who attended the service? and why?
4. Which media in community and which content that made you/ and your locals realize about the importance of healthcare efficiently? and why?
5. Did you think that when you/ and your locals got ill, they only relied on or asked for help from physician, nurse, or public health officer? and why?
6. How did you define about the term of “Healthy”? and why?
7. Who or which sectors should be responsible for health communication operation? and why?
8. How did you communicate with locals, when facing with severe epidemic or outbreak case? and why?
9. Did you/ and locals think to prevent yourself and your family through vaccination for tetanus prevention, screening diabetes, blood pressure, breast cancer? and why?
10. Did you think that you/ and your locals had to be instructed by public health officer outside community? and why?
11. Did you think that you/ and your locals always promote and strength your/their health in order to not getting ill? and why?
12. Did you open the opportunity for other related sectors to be health communication exhibitor with community?
13. Did you/ and locals avoid health threat behavior? and what was behavior?
14. Did you/ and locals use alternative medicines? What type? and why?
Guided Questions Part III for Responding Research Question No. 2: For public health and local administrative officers who involved in health communication operation

1. How did you communicate with local when your community faced with severe epidemic or outbreak case? and why?

2. What did activities or projects that had main objectives to promote healthcare? And how about the achievement? and why?

3. Did you think that locals had to be instructed by public health officer outside community? and why?

4. Which media in community that you expose the most and which content that made you realize about the importance of healthcare efficiently? and why?

5. Were you satisfied health communication information presented by media in community? Which media satisfied you the most? and why?

6. Who could be health communication leader? and how did the characteristic of health communication leader should be? and why?

7. How did you and your community create participation from every involved sectors in community health communication operation? and what level did every involved sectors participate? (1) Audience or express opinion level, (2) Content exhibitor or content presenter level, and (3) Determine and evaluation level.

8. Did you and your community received the cooperation from related health agencies both within and outside community? and why?

9. Did you and community open the opportunity for other related sectors to be health communication exhibitor with community?

10. What was the main factor that make your community succeed and obtain reward in disease prevention and control according to “2014’s Excellent District Health System Award” policy? and did you think that communication is the one factor for success? and why?
Guided Questions Part VI for Responding Research Question No. 2: For public sector who involved in health communication operation, i.e. Public health volunteer and Community Leader

1. Did public health officers help you realizing about the importance of caring your health? and why?

2. At present, did you think that district public health officers within your community are able to administrate activities or networks related to healthcare by themselves? and why?

3. Which media in community and which content that made you realize about the importance of healthcare efficiently? and why?

4. Were you satisfied health communication information presented by media in community? Which media satisfied you the most? and why?

5. Did you and your community received the cooperation from related health agencies both within and outside community?

6. Who could be health communication leader? and how did the characteristic of health communication leader should be? and why?

7. How did you caring your health when you got ill? and why?

8. Did you think to prevent yourself and your family through vaccination for tetanus prevention, screening diabetes, blood pressure, breast cancer? and why?

9. How did you define about the term of “Healthy”? and why?

10. Did you avoid health threat behavior? and what behavior?

11. Did you use alternative medicines? What type? and what was the reason that you use? and why?

12. Did you participate in community health communication operation? and what level did you participate? (1) Audience or express opinion level, (2) Content exhibitor or content presenter level, and (3) Determine and evaluation level.

13. Did public health officer open the opportunity for you to be health communication exhibitor with community?

14. What was the main factor that make you community succeed and obtain reward in disease prevention and control according to “2014’s Excellent District Health System Award” policy? and did you think that communication is the one factor for success? and why?
แบบสัมภาษณ์

ข้อมูลเกี่ยวกับลักษณะทางประชากรของผู้ให้สัมภาษณ์
1. ชื่อ/นามสกุล
2. อายุ
3. การศึกษา
4. อาชีพ
5. ภูมิลำเนา

แนวค่าถามล่าสุดที่ 1 เพื่อตอบปัญหาการวิจัยข้อที่ 1-2: สำหรับผู้ประเมินหลักตามนโยบาย “อำเภอควบคุมโรคเข้มแข็งแบบยั่งยืน” สำนักงานป้องกันควบคุมโรคที่ 1 กรุงเทพฯ

1. ท่านมีบทบาท หรือหน้าที่ที่เกี่ยวข้องอย่างไรบ้างในการดำเนินงานด้านการสื่อสารสุขภาพของชุมชน
2. ท่านมีเกณฑ์ในการคัดเลือกอำเภอต้นแบบที่ประสบความสำเร็จ (Success case) ในการป้องกันควบคุมโรคและภัยสุขภาพตามนโยบาย “อำเภอควบคุมโรคเข้มแข็งแบบยั่งยืน” ในปี 2557 อย่างไร
3. ท่านคิดว่าการทำงานด้านการสื่อสารสุขภาพของสำนักงานป้องกันควบคุมโรคที่ 1 กรุงเทพฯ มีความแตกต่าง/ท้าทาย/โดดเด่น จากสำนักงานป้องกันควบคุมโรคในเขตอื่นๆ หรือไม่ เพราะเหตุใด
4. ท่านคิดว่าคนในชุมชน (1) อำเภอพระนครศรีอยุธยา จังหวัดพระนครศรีอยุธยา (2) อำเภอบางใหญ่ จังหวัดปทุมธานี และ (3) อรรคภูมิชนี หรือไม่ เพราะเหตุใด
5. ท่านคิดว่าคนในชุมชน (1) อรรคภูมิชนี จังหวัดปทุมธานี และ (2) อรรคภูมิชนี จังหวัดพระนครศรีอยุธยา หรือไม่ เพราะเหตุใด
6. ท่านคิดว่าคนในชุมชนทั้ง (1) อรรคภูมิชนี จังหวัดพระนครศรีอยุธยา (2) อำเภอพระนครศรีอยุธยา อำเภอบางใหญ่ และ (3) อรรคภูมิชนี จังหวัดปทุมธานี มีความคิดที่จะป้องกัน
โรคต่างๆ เช่น โรคติด คอตีบ บาดทะยัก ไวรัสตับอักเสบบี วัณโรค และพิษสุนัขบ้า ให้กับตนเอง หรือบุคคลในครอบครัว อย่างไร

8. ท่านคิดว่าในชุมชน (1) อ่างทอง (2) จังหวัดพระนครศรีอยุธยา (3) อ่างทองใหญ่ จังหวัดสมุทรปราการ (4) อ่างทองใหญ่ จังหวัดสมุทรปราการ ให้ความสำคัญกับการสร้างเสริมสุขภาพของตนเองให้แข็งแรงอยู่เสมอในขณะที่ตนเองยังมีสุขภาพที่ดีหรือไม่ เพราะอะไร

9. ท่านคิดว่าในชุมชน (1) อ่างทอง (2) จังหวัดพระนครศรีอยุธยา (3) อ่างทองใหญ่ จังหวัดสมุทรปราการ ให้ความสำคัญกับการสร้างเสริมสุขภาพของตนเองให้แข็งแรงอยู่เสมอในขณะที่ตนเองยังมีสุขภาพที่ดีหรือไม่ เพราะอะไร

10. ชุมชน (1) อ่างทอง (2) จังหวัดพระนครศรีอยุธยา (3) อ่างทองใหญ่ จังหวัดสมุทรปราการ ให้ความสำคัญกับการสร้างเสริมสุขภาพของตนเองให้แข็งแรงอยู่เสมอในขณะที่ตนเองยังมีสุขภาพที่ดีหรือไม่ เพราะเหตุใด

11. ใคร/หน่วยงานใดที่เกี่ยวข้องมีส่วนร่วม (เช่น การแสดงหรือแลกเปลี่ยนความคิดเห็น ความรู้ ความรู้สึก และประสบการณ์/การร่วมผลิตสื่อ) ในการประชุม การอบรม กิจกรรม หรือรายการที่ออกอากาศ/การร่วมกิจกรรมในการดำเนินโครงการหรือกิจกรรมในการสร้างเสริมสุขภาพพื้นที่ รวมทั้งได้ผลในด้านการปรับพฤติกรรมสุขภาพของประชาชนหรือไม่ เพราะเหตุใด

12. ท่านคิดว่าเป็นปัจจัยสำคัญในการทำให้ชุมชน (1) อ่างทอง (2) จังหวัดพระนครศรีอยุธยา (3) อ่างทองใหญ่ จังหวัดสมุทรปราการ เป็นชุมชนต้นแบบที่ประสบความสำเร็จ (Success case) ได้รับรางวัล “อ่างทองคว้าถ้วยทองคำเชิง แบบยั่งยืนอีกครั้ง” ในปี 2557 และได้รับคะแนนสูงสุดของจังหวัด คืออะไร และท่านคิดว่าการสื่อสารเป็นปัจจัยสำคัญที่ทำให้ชุมชนประสบความสำเร็จ หรือไม่ เพราะอะไร

13. ท่านคิดว่าอุปสรรคในการดำเนินงานด้านการสร้างเสริมสุขภาพของชุมชน (1) อ่างทอง (2) จังหวัดพระนครศรีอยุธยา (3) อ่างทองใหญ่ จังหวัดสมุทรปราการ (4) อ่างทองใหญ่ จังหวัดสมุทรปราการ ในปัจจุบันมีอะไรบ้าง และจะมีแนวทางในการแก้ไขอย่างไร

14. เป้าหมายที่สำคัญที่สุดของการดำเนินงานด้านการสร้างเสริมสุขภาพของชุมชนเป็นไปตามความต้องการของประชาชนที่ (1) กรุงเทพฯ จังหวัดพระนครศรีอยุธยา (2) อ่างทอง จังหวัดพระนครศรีอยุธยา (3) อ่างทองใหญ่ จังหวัดสมุทรปราการ คืออะไร เพราะเหตุใด
แนวค่าถามลำดับที่ 2 เพื่อดำเนินการวิจัยข้อที่ 1: ลำดับลำดับที่สำธาระณสุขช่วงเวลาเจ้าหน้าที่สาธารณสุขอำเภอเจ้าหน้าที่โรงพยาบาลอนุทิน/รพ.ท.ส.เจ้าหน้าที่เทศบาลเจ้าหน้าที่องค์การบริหารส่วนที่ 2 และทีมผู้ระวังสอบสวนเคลื่อนที่เร็ว (SRRT)

1. ท่านคิดว่าท่านเอง/คนในชุมชนมีข้อมูลเกี่ยวกับการดูแลสุขภาพของตนเองให้สมบูรณ์แข็งแรงหรือไม่ เพราะอะไร?

2. ท่านมีวิธีการสื่อสารความรู้เกี่ยวกับการป้องกันควบคุมความคุ้มครองและสร้างเสริมสุขภาพให้กับคนในชุมชนด้วยวิธีการใด?

3. ท่านมีวิธีการสื่อสารกับคนที่เจ็บป่วยในชุมชนที่มีรับบริการอย่างไร?

4. สื่อ/ช่องทางการสื่อสาร และเครื่องมือที่ท่านใช้ในการให้ความรู้เกี่ยวกับการป้องกันควบคุมความคุ้มครองและสร้างเสริมสุขภาพและได้ผลหรือไม่ เพราะเหตุใด?

5. ท่านมีวิธีการสื่อสารกับคนที่เจ็บป่วยในชุมชนที่มีรับบริการอย่างไร?

6. ท่านมีวิธีการสื่อสารกับคนที่เจ็บป่วยในชุมชนที่มีรับบริการอย่างไร?

7. ท่านมีวิธีการสื่อสารกับคนที่เจ็บป่วยในชุมชนที่มีรับบริการอย่างไร?

8. ท่านมีวิธีการสื่อสารกับคนที่เจ็บป่วยในชุมชนที่มีรับบริการอย่างไร?

9. ท่านมีวิธีการสื่อสารกับคนที่เจ็บป่วยในชุมชนที่มีรับบริการอย่างไร?

10. ท่านมีวิธีการสื่อสารกับคนที่เจ็บป่วยในชุมชนที่มีรับบริการอย่างไร?

11. ท่านมีวิธีการสื่อสารกับคนที่เจ็บป่วยในชุมชนที่มีรับบริการอย่างไร?

12. ท่านมีวิธีการสื่อสารกับคนที่เจ็บป่วยในชุมชนที่มีรับบริการอย่างไร?

13. ท่านมีวิธีการสื่อสารกับคนที่เจ็บป่วยในชุมชนที่มีรับบริการอย่างไร?

14. ท่านมีวิธีการสื่อสารกับคนที่เจ็บป่วยในชุมชนที่มีรับบริการอย่างไร?
แนวค่ามลำดับที่ 3 เผด็จศึกษาท้ายการวิจัยข้อที่ 2: ส่าห์สร้างความเข้าใจผู้ที่สามารถสูตรจางหวัด เจ้าหน้าที่สาธารณสุขอำเภอ เจ้าหน้าที่โรงพยาบาลอายุ/ร.พ.ส.ท. เจ้าหน้าที่เทศบาล เจ้าหน้าที่ องค์กรบริหารส่วนตำบล และทีมฝ่ายระวังสอบสวนคลอดเดือนที่รี (SRRT)

1. ในชุมชนมีช่วงเวลาที่เกิดวิกฤตด้านสุขภาพ หรือเกิดโรคระบาดภายในชุมชนหรือไม่ และในช่วงเวลาที่มีวิธีการสื่อสารกับคนในชุมชนอย่างไร

2. ชุมชนมีกิจกรรม/โครงการ/เครื่องจักรใดบ้างที่มีเป้าหมายเพื่อการสร้างเสริมสุขภาพ และผลสัมฤทธิ์ของแต่ละกิจกรรมเป็นอย่างไร

3. ท่านคิดว่าในชุมชนจ่ายเป็นสิ่งได้รับการอบรม/ให้ความรู้เกี่ยวกับการป้องกัน ควบคุมโรคและการสร้างเสริมสุขภาพจากบุคคลภายนอกสู่ชุมชนหรือไม่ เพราะอะไร

4. ท่านชุมชน มีกิจกรรมที่เกี่ยวกับการสื่อสารสุขภาพจากฟ้าใสบ้าง (ยกตัวอย่างเสื่อ) และ สื่อใดที่ท่านคิดว่ามีประสิทธิภาพในการทำให้ท่านเห็นภาพในการสื่อสารสุขภาพของตนเองให้ สมบูรณ์แข็งแกร่งที่สุด เพราะอะไร

5. ท่าน/ชุมชน มีความพึงพอใจในการได้รับข่าวสารเกี่ยวกับการสื่อสารสุขภาพจากฟ้าใสใน ชุมชน (ยกตัวอย่างเสื่อ) ของทางไหนหรือไม่ ในประเด็นใดบ้าง เพราะอะไร

6. ท่านคิดว่าแผนการดำเนินการสื่อสารสุขภาพของชุมชนคืออะไร ควรมีลักษณะเป็นอย่างไร เพราะอะไร

7. ท่าน/ชุมชน สร้างการมีส่วนร่วมจากทุกภาคส่วนในชุมชนได้อย่างไรในการดำเนิน กิจกรรม/โครงการ/เครื่องจักรที่เกี่ยวกับการสื่อสารสุขภาพ และในแต่ละภาคส่วนมีส่วนร่วม อย่างไร และในขั้นตอนใดบ้าง เช่น (1) ระดับผู้บริหาร/ระดับผู้มีอำนาจ/ได้ตอบ (2) ระดับการผลิตสื่อ/นักอ่านสื่อ (และ 3) ระดับการกำหนดแนวทิศดำเนินงานและประเมินผล

8. ท่าน/ชุมชน ได้รับความร่วมมือจากหน่วยงาน/เครื่องจักรสุขภาพต่างๆ ภายในชุมชน รวมทั้งภายนอกชุมชนในการสื่อสารสุขภาพหรือไม่ อย่างไร

9. ท่าน/ชุมชน ได้เปิดโอกาสให้ผู้ที่เกี่ยวข้องกับการสื่อสารสุขภาพจากภาคส่วนต่างๆ เป็น ผู้ส่งสื่อสารสุขภาพกับผู้บริหารสู่ชุมชนหรือไม่ เพราะอะไร

10. ท่านคิดว่าปัจจัยสำคัญในการทำให้ชุมชนเป็นชุมชนต้นแบบที่ประสบความสำเร็จ (Success case) ในการป้องกันควบคุมโรคและภัยสุขภาพของโรค “ต่างกับความคุมโรคยัง เช่น แบบยั่งยืน” ในปี 2557 คืออะไร และท่านคิดว่าการดำเนินการที่ทำให้ชุมชนของท่านประสบความสำเร็จหรือไม่ เพราะอะไร
แนวคิดจุดส่วนที่ 4 เพื่อตอบปัญหาการวิจัยข้อที่ 1-2: สำหรับแกนนำภาคประชาชนที่เกี่ยวข้องกับงานสื่อสารสุขภาพของชุมชน ได้แก่ อาสาสมัครสาธารณสุข และผู้นำชุมชน

1. เจ้าหน้าที่สาธารณสุขภายในชุมชนสามารถทำให้ท่านตระหนักในความสำคัญของการป้องกันควบคุมโรคและสร้างเสริมสุขภาพ หรือไม่ อย่างไร

2. ในปัจจุบันท่านคิดว่าชุมชนของท่านสามารถบริหารจัดการเรื่องการสื่อสารสุขภาพ โดยการจัดเสริมสร้างการรับรู้สึ歌唱เจ้าหน้าที่สาธารณสุขภายนอกชุมชน ได้หรือไม่ เพราะอะไร

3. ท่านได้รับข่าวสารเกี่ยวกับการดูแลสุขภาพจากสื่อใดบ้าง (ยกตัวอย่างสื่อ) และสื่อ/เนื้อหาใดที่ท่านคิดว่ามีประสิทธิภาพในการทำให้ท่านตระหนักในการดูแลสุขภาพของตนเองให้สมบูรณ์แข็งแกร่งที่สุด เพราะอะไร

4. ท่านมีความพึงพอใจในการได้รับข่าวสารเกี่ยวกับการดูแลสุขภาพจากสื่อในชุมชน (ยกตัวอย่างสื่อ) ของท่านหรือไม่ ในประเด็นใดบ้าง เพราะอะไร

5. ท่านชุมชนได้รับความร่วมมือจากหน่วยงาน/เครือข่ายสุขภาพต่างๆ ภายในชุมชนรวมทั้งภายนอกชุมชนในการสื่อสารสุขภาพหรือไม่ อย่างไร

6. ท่านคิดว่าแผนเกี่ยวกับการสื่อสารสุขภาพของชุมชนเกิดใคร และภาระมิลักและเป็นขั้นไหน เพราะอะไร

7. เวลาที่ท่านเข้าป่วยท่านมีการดูแลรักษาตนเองอย่างไร เพราะอะไร

8. ท่านมีความคิดที่จะป้องกันโรคต่างๆ เช่น โรคหัด คอตีบ มดุล หรือโรคที่อักเสบภายนอกชุมชน ไวรัส ไข้พิษสุนัขบ้า ให้กับตนเองหรือบุคคลในครอบครัว อย่างไร เพราะอะไร

9. ท่านต้องการมีสุขภาพที่ดี คืออะไร เพราะอะไร

10. ท่านให้เห็นถึงความมุ่งมั่นในการสื่อสารสุขภาพที่เป็นอันตรายต่อสุขภาพ หรือไม่ เช่นพริตติสุขภาพอะไรบ้าง เพราะอะไร

11. ท่านใช้บริการแพทย์ทางเลือกหรือไม่ เพราะอะไร

12. ท่านมีความร่วมมือโครงการ/กิจกรรม/เครือข่ายที่เกี่ยวกับการสื่อสารสุขภาพหรือไม่ และมีส่วนร่วมในระดับใดบ้าง และอย่างไร เช่น (1) ระดับผู้รับสาร/แหล่งความคิดเห็น/ให้ตอบ (2) ระดับการผลิตสื่อ/น้าเสนอข่าวสาร และ (3) ระดับกำหนดแนวทางดำเนินงานและประเมินผล

13. ท่านมีสิทธิ์ในการแสดงความคิดเห็นอย่างไร

14. ท่านคิดว่าปัจจัยสำคัญในการทำให้ชุมชนเป็นชุมชนด้านที่ประสบความสำเร็จ (Success case) ในการป้องกันควบคุมโรคและภัยสุขภาพของนโยบาย “ฉีกควบคุมโรคเพิ่มเติม” อย่างไร โดยที่ท่านเป็นผู้นำกิจกรรมสำคัญที่ทำให้ชุมชนของท่านประสบความสำเร็จ หรือไม่ เพราะอะไร
APPENDIX C

PICTURES OF MEDIA IN COMMUNITY
Child and Youth council in Nong Sua district, Pathum Thani, with “Teen Away from AIDS Activity”
Specialized Media which were Brochure, Condom, and Activity Media, i.e. Exhibition of “Teen Away from AIDS Activity” in Nong Sua district, Pathum Thani
Specialized Media which was Bueng Ba Subdistrict Administrative Organization’s Calendar in Nong Sua district, Pathum Thani
“Prevention and Resolution of Traffic Accident Project” of Nong Sua District, Pathum Thani’s Network
“2016 Ayuthaya Unity Game Activity” which was Public Health Personnel’ Sport Competition
Specialized Media which was 3D Media Exhibited in “Sweet Hidden Poison Project” of Phra Nakorn Sri Ayuthaya’s Municipality
New Media for Non-Communicable Diseases Evaluating and Integration between Activity and Personal Media for Instructing How to Prevent Non-Communicable Diseases Caused by Inappropriate Behavior
Specialized Media which were Sticker, Poster, and Vinyl for “Control of Alcohol Intake Project” of Bang Yai District, Nonthaburi
Rewarded for “Excellent District Health System in 2014”, Phra Nakorn Sri Ayuthaya district, Phra Nakorn Sri Ayuthaya and “Excellent District Health System in 2015”, Bang Yai Districts, Nonthaburi
BIOGRAPHY

NAME 
Kirati Kachentawa

ACADEMIC BACKGROUND 
Bachelor’s Degree in Political Science (Major in Sociology & Anthropology) from Chulalongkorn University, Bangkok, Thailand in 2006
Master’s Degree in Communication Arts (Major in Integrated Communication Management) from Chulalongkorn University, Bangkok, Thailand in 2012
Enroll in Ph.D. Program in Communication Arts & Management Innovation (Major in Communication Arts & Innovation) from National Institute of Development Administration, Bangkok, Thailand since 2014

PRESENT POSITION 
Received a Full Scholarship from National Institute of Development Administration, Bangkok, Thailand in 2014
Research Assistant of Asst. Smith Boonchutima, Faculty of Communication Arts, Chulalongkorn University, Bangkok, Thailand, since 2012-present
Research Assistant of Assoc. Prof. Patchanee Cheyjunya, Graduate School of Communication Arts & Management Innovation, National Institute of Development Administration, Bangkok, Thailand, since 2014-present
EXPERIENCE

Business & Area Development Officer at Global Art & Creative (Thailand) Co., Ltd., Bangkok, Thailand, since 2007-2010