

Received: 11 November 2022 Accepted: 15 March, 2023

DOI: <https://doi.org/10.33182/rr.v8i3.34>

Guidelines for Community Wellbeing Development with Village Health Volunteers' Participation During COVID-19 Pandemics In Aranyaprathet District, Sa Kaeo Province, Thailand

Nawasanan Wongprasit¹ Wichit Seangsawang^{*2}

Abstract

This research is an integrated qualitative-quantitative approach. Its objective was to develop a guideline for community wellbeing development through the village health volunteer participation during the outbreak of COVID-19, in Aranyaprathet district, Sa Kaeo province, Thailand. The key informants for qualitative approach were recruited through the purposive sampling technique, 680 people including the Directors of Tambon Health Promoting Hospitals, Presidents of Tambon Administrative Organizations, community leaders, and village health volunteers in Aranyaprathet district. Tools for collecting data were in-depth interviews and non-participant observation, and the obtained data were analyzed by content analysis. The quantitative research samples consisted of 351 people of Aranyaprathet district, selected by using hierarchical random sampling. The data collection instrument was a questionnaire, and the analytical statistics were frequency, percentage, mean, standard deviation, Pearson correlation coefficient, and multiple regression analysis. The results were summarized as a draft guideline of developing the community wellbeing for village health volunteers during the outbreak of COVID-19. The draft of guideline was brought up for a group discussion among 10 experts to confirm and summarize as the guideline for developing the community wellness through participation of village health volunteers during the outbreak of COVID-19. The study results found that community wellness development with village health volunteers' participation during the outbreak of COVID-19 (COVID-19), in Aranyaprathet district, Sa Kaeo province, Thailand, consisted of 3 main factors: 1) factor of community leaders, directors of the Health Promotion Hospital, local leaders, and monks, whose functions were to form the policy, support budget and encouragement, 2) factor of village health volunteers who had to walk and knock on the door to screen and give advice about the disease to people; 3) factor of individuals and families who had to abide by the policy and cooperate with the healthy activities. All three factors were the essential cores contributing to community wellbeing. The participatory working process consisted of four steps. 1) Participatory community wellbeing planning included activities to explore the problem, mobilize participation, and prepare village statutes. 2) Implementation of the planned activities for community wellbeing: there were setting up activities for screening checkpoints for entering and exiting villages, developing the potential of village health volunteers, and knocking door for screening and giving advice. 3) Monitoring and evaluating community wellbeing: activities included both formal follow-up activities by meeting, and informal follow-up by greeting and questioning in any convenient occasion. 4) Returning benefits to the community: activities included sharing knowledge and publicizing process and outcomes to others for learning as a practical

^{1,2} Rajabhat Rajanagarindra University, Thailand

Corresponding author: Wichit Seangsawang (wssw_9@hotmail.com)

model to reduce the spread of the disease in society in the future.

Keywords: *community wellbeing, participation, COVID-19 epidemics, Aranyaprathet, Thailand*

Background and Significance of the Problem

An outbreak of COVID-19 was first detected in Wuhan, the capital of Hubei province, The People's Republic of China. The World Health Organization declared the outbreak a Public Health Emergency of International Concern on January 30, 2020, and a pandemic on March 11, 2020. In Thailand, the COVID-19 has been declared a dangerous communicable disease according to the Communicable Diseases Act 2015 and effectively enforced since March 1, 2020. The Prime Minister's Office ordered establishing the Center for the Administration of the Situation due to the Outbreak of the Communicable Disease Coronavirus (COVID-19) on March 10, 2020. In Thailand, the first wave of the epidemic was in January 2020. The first detected case was a Chinese tourist who entered Thailand on January 12, 2020. At the early period, the infected were tourists and number of Thai infected cases gradually increased in the later period. The outbreak period was active between March and April 2020, but the disease could be controlled within 2 months. The second wave of epidemic (December 2020) was marked by reporting that the infected cases migrated through Ta Khilek, from Republic of the Union of Myanmar on November 30, 2020. It was an epidemic of the G614 strain of COVID. Later, in December 2020, Thai people were infected and transmitted from the shrimp market, Samut Sakhon province. And the third wave of the outbreak (April 2021) started at the end of March 2021 in entertainment venues in Bangkok, many places at Soi Thonglor and Soi Ekamai. It was an epidemic of British strains of COVID. Sa Kaeo province had the first case of the third wave of outbreak. It was transmitted through visiting entertainment venues in Thong Lor, Bangkok, on March 27, 2021. It, then, spread to their own families before spreading to a wider society. At present, while collecting data in Sa Kaeo province, there are 3,376 cumulative cases from the third wave of the outbreak (April 1 - July 31, 2021), while in the whole country there are 526,828 cases (Department of Disease Control, July 31, 2021).

Through the outbreaks of COVID-19 in Thailand as the above-mentioned, Village Health Volunteers (VHVs) have played the significant role in bringing health services to reach people. VHVs are local people who are selected from clusters of villagers and are trained according to the training program set by the Ministry of Public Health. With an important role as a leader of change in health behavior, health communication, giving advice, information dissemination, planning and coordinating public health activities. They also provide various public health services such as health promotion, surveillance, and prevention of disease, first aid and medical treatment by using drugs and medical supplies within the scope prescribed by the Ministry of Public Health. Village Health Volunteers are responsible for taking care of households in the

village, one VHV per 10-15 households (Department of Health Service Support, 2011, p 20). During the COVID-19 epidemic, VHVs approached villagers by knocking on the door of each house to screen and give advice on the prevention of COVID-19. They educated people about symptoms and self-observation, handing out masks, mostly medical masks supplied by the government, and some provided by VHVs, hand-made cloth-mask sewn by health volunteers. They also handed out alcohol gel and manual guide of self-practice. The volunteers also received face masks, face shields, hazardous waste bags, and alcohol gel for protecting themselves. They searched for patients with COVID-19 by focusing on the suspected to be at risk according to the definition of the Ministry of Public Health. Due to working to reach the target groups and having high intention and determination, they have been hailed by the World Health Organization as community heroes (WHO, 2020), whose power and potentiality should be explored as lessons learned and acknowledged as a role model in a new normal for Thai society. Aranyaprathet is a district in Sa Kaeo province of Thailand, adjacent to Cambodia.

It consists of 13 sub-districts, 104 villages, with 16,816 households and 91,491 people. During COVID-19 pandemic, Aranyaprathet district faced the problem that migrant laborers flew across the border from Cambodia. Some migrants travelled across the borders in natural channels without health and legal screening. Therefore, screening measures were set up for public health agencies, village health volunteers, and communities to cooperate in surveying and screening people in the community. The measures included quarantine, monitoring, and organizing a strict community outbreak prevention system until receiving the Best Practice Award (Department of Disease Control, 2021). Due to the strict measures of the province, especially in immigration, the governor of Sa Kaeo province issued an urgent order to set up immigration checkpoints at 5 entry-exit points, in the province for 24 hours a day, and to suspend the permission of Cambodian merchants to carry goods in Rong Kluea Market, Aranyaprathet district as needed, limiting only 50 cars per day or no more than 100 people to prevent the spread of the COVID-19 virus. Aranyaprathet district implemented measures to prevent the spread of COVID-19, strictly by using 5 royal biosafety vehicles for screening the infectious disease, surveillance, and actively detecting coronavirus 2019 in Aranyaprathet district, Rong Kluea market area. There was also a training to prepare public health personnel, including volunteers, to have the knowledge and skills to respond to emergencies, and prepare volunteer spirits to help in case of an outbreak of the Coronavirus Disease 2019 in the area. If they found any person was at risk, they would send him/her to a designated area for quarantine and continuously observe symptoms every day until complete quarantine period. (Krungthep Turakij, 2021).

The research team realized the importance of the work of volunteers and those involved in public health management according to the country's measures to prevent the spread of COVID-19. Therefore, we were interested in studying how to improve community well-being during the COVID-19 pandemic to propose the guideline for managing the future health crises by village

health volunteers and those involved in community well-being of Aranyaprathet district, Sa Kaeo province. It would be beneficial to set guidelines for developing community wellbeing to strengthen people to have a good quality of life, being aware of healthy practice for timely preventing epidemic or emerging diseases in the future, reduce the impact that might occur to the wider public. These would result in people with good immunity for preventing negative impacts that might come in at any time. People could be important power for developing the country in a stable, prosperous, and sustainable way.

Research Objectives

To develop a community wellbeing through participation of village health volunteers and those involved in community wellbeing during the COVID-19 outbreak in Aranyaprathet district, Sa Kaeo province.

Methodology

The researchers designed this research as a mixed method. Data were collected in the year 2021, during the third wave of COVID-19 outbreak in Thailand. The research procedure was divided into 5 steps as follows:

Step 1: Collecting qualitative data and studying community context.

Researchers interviewed people who were involved in the community wellbeing in all sub-districts of Aranyaprathet district. The interviewing was to explore the situation, problems, and obstacles of, and solutions for community well-being to prevent the spread of COVID-19.

Step 2: Qualitative data analysis. It used content analysis.

Step 3 Quantitative data collection.

The questionnaire was created including factors affecting community wellbeing development with participation of village health volunteers. It was integrated the related theoretical concepts for forming the questionnaire for data collection. It comprised the independent variables, namely factors affecting the development of community well-being, and dependent variables, namely participatory community wellbeing. Training research assistants for collecting data before going to the field was done. The respondents of questionnaire were randomly drawn from the people of all sub-districts.

Step 4 Quantitative data analysis.

The data obtained from questionnaire were analyzed by descriptive statistics. The relationship between levels of factors affecting community wellbeing development during the COVID-19 outbreak of Aranyaprathet district was tested by using Pearson's correlation. The factors affecting the development of community wellbeing were tested with multiple regression statistics, using a

software program..

Step 5 Summarizing and confirming the solution.

Both the qualitative and quantitative data obtained were summarized and used for drafting a guideline. Then the draft guideline was reviewed and commented in focus group discussion by experts who were representatives of community leaders, Tambon Health Promotion Hospitals, village health volunteers, Tambon Administrative Organizations, schools, and academicians. The results were summarized and prepared in the form of a manual. Then, researchers organized a meeting to return information to the community.

The target groups were village health volunteers, community leaders, and 200 people from every village in Aranyaprathet district. In the meeting, manuals were distributed among communities to all sub-districts for application and distributing to the public through local news. A special news scoop to publicize on TV programs was aimed at acknowledgement and that it could be a good role model for other districts to apply in the future.

The Studied Population and Sample

The population used in this study were all those involved in community wellbeing of Aranyaprathet district as follows: 1) providing service group referred to 1,622 village health volunteers, 1 District Health Office, 16 Directors of Tambon Health Promotion Hospital. Community leaders referred to 114 village headmen, 13 Tambon headmen, and 13 presidents of local administrative organizations in Aranyaprathet district, and 2) service recipients: 91,491 local people.

The sample group consisted of 680 key informants with details as follows.

Qualitative Research

Key informants, service providers in every sub-district, were identified and interviewed. The key informants included 16 directors of sub-district health promotion hospitals, 13 sub-district administrative offices using purposive sampling, 37 community leaders, and 324 volunteers; all of them were totally 390 people. Key informants for in-depth interviews and non-participatory observation from service providers, including 162 volunteers (but not the same group as the main informants), one District Health Officer, and 13 sub-district headmen, a total of 176 people. In-depth interviews and non-participatory observation from service users were representatives of 114 households, drawn from 114 villages by purposive sampling. Experts participating in the group discussions included representatives from community leaders, representatives from sub-district health promotion hospitals, representatives from village health volunteers, representatives from local administrative organizations, and 10 academic representatives.

Quantitative Research

The population for the quantitative research were 91,491 people of Aranyaprathet District. Determination of sample size: It was determined by using the sample calculation formula according to Krejcie and Morgan's table (Krejcie & Morgan, 1970, p.608), the confidence level was 95%. The sample size was 351 people, using a layered random sampling method. Stratified Random Sampling was applied for calculation of the proportion according to the list of sub-districts, then perform a simple random operation until each village had reached the required number.

Tools used for data collection

1. The tools used for collecting qualitative data were semi-structured interviews, created according to Patton's concept (Patton, 1990). The contents were related to the current conditions, problems and obstacles, and the ways in which community wellbeing could be improved and any outbreaks could be prevented, motivation to go to work during the pandemic, and principles of work. The tools used for non-participatory observation included the record form, consisting of both physical and observational findings. Things that were seen, events, health behaviors, work environment for village health volunteers, households, protective devices, alcohol gel, how they wore the facemask, and others. Checking quality of the tools: Three experts were asked to check for content validity of the tools. One expert was an academician from a university teaching at Faculty of Public Health, one provincial health administrator, and one district health administrator. Then, the tools were applied by using to interview three people to improve the tools before using in the field.

2. The tools used for collecting quantitative data included questionnaires on factors affecting the development of community well-being with volunteer participation during the COVID-19 outbreak in Aranyaprathet district, Sa Kaeo province. Checking quality of the tool was done by identifying the IOC and confidence values, reliability, by using the alpha coefficient by Cronbach's method (Cronbach, 1990, pp. 201-204), which the confidence value of the whole version was greater than 0.75. It was considered that the questionnaire was reliable for further data collection.

Data collection

Qualitative research: the data were collected by in-depth interviews among key informants or until data were saturated. The collecting data was also done by other methods, including non-participant observation, and making field note, and checking reliability with rigor criteria. The researchers verified the same information from many sources such as annual reports, newspapers, and analysis of related documents. Writing reflexive note after collecting data was also done for recording ideas, data-based beliefs, and association of data collected to be used for complete and

accurate data analysis. Quantitative research data collection: it was done by sending a questionnaire to the sample group and collecting it once completed.

Data analysis

The qualitative data were analyzed by using content analysis. The analysis process included defining data codes, interpreting meaning of the data, creating concepts by comparing the concepts with the theories and existing research findings according to the qualitative study approach. There were three steps according to Strauss & Corbin's approach (Strauss & Corbin, 1998). Quantitative data analysis: Data were analyzed by using a software package program. The statistics used were frequency, percentage, mean (\bar{x}), standard deviation (S.D.), Pearson correlation coefficient, and multiple regression analysis.

Research results

Qualitative research results

1. Study of the current situation problems and solutions about improving community well-being during the COVID-19 epidemic through participation of village health volunteers and people involved in community well-being in Aranyaprathet district, Sa Kaeo province found as follows:

1) Current situation of the outbreak of COVID-19 still had been constantly at risk since the third wave of the epidemic since the confirmed cases coming from entertainment venues from Thonglor, Bangkok, and tourist cases from karaoke pubs in the area, causing more infections. As a result, Aranyaprathet district had established 16 field hospitals, Community Isolation Center (*Sun-pak-koi*), or local quarantine centers, in every sub-district for taking care of travelers returning from Cambodia and those traveling from any risk areas. Measures to control spread of the disease were set and required every sub-district to strictly follow the government's measures, screening of people entering and exiting villages and coming from risky areas, quarantine, reporting information through rapid technology systems, by cooperative working with all sectors. Leaders of all sectors, monks, and citizens were formed in a committee; in some places they applied community resolutions or sub-district statutes in their operations. This is a kind of management that comes from people in the community expressing their opinions to seriously control and prevent the outbreak in cooperative work..

2) The problems found included lack of cooperation from some people, some complaints, and that some did not inform when they enter the area, lack of good communication, and lack of knowledge about COVID-19 outbreak management. The problems also included that health workers had not yet received their compensation for working in the risk area, shortage of budget, illegal immigration, and smuggling work through natural channels. Volunteers had increased workload due to the spread of COVID-19 and setting up screening checkpoints.

3) The solutions to the problems were to have training, reviewing, increasing knowledge for village health volunteers, creating guidelines that suitable for individual needs for developing skills of village health volunteers. There were the organizing formal and informal meetings among Tambon headmen and village headmen, mobilizing resources and proposing cooperation from the public sector, private sector, temples, schools, and the public. Periodical monitor and evaluation of performance to ensure that if any problem arisen, it could be solved in time. Special operation centers for communicable diseases or accident centers had been set up. There was a central administrative agency to prepare and take account for all sectors. The morale boosting system also was available for village health volunteers.

2. Components of participatory community wellbeing development during the COVID-19 epidemic through village health volunteers and people involved in community wellbeing in Aranyaprathet district, Sa Kaeo province.

It was found that the components of participatory community wellbeing development during the COVID-19 epidemic through village health volunteers and people involved in community wellbeing in Aranyaprathet district, Sa Kaeo province consisted of factors contributing to successful development of community wellbeing, namely 1) individual and family factors, 2) community leaders, the director of Health Promotion Hospitals and local leaders, 3) factors of village health volunteers and participatory community wellbeing development consisted of 1) Participatory wellbeing planning 2) Planned community wellbeing implementation 3) Monitoring and evaluating community wellbeing 4) Returning benefits to the community. There were also other related activities, namely 1) problem surveys, mobilizing participation, 2) implementing planned wellness as 3 activities, 3) formal and informal follow-up, and 4) sharing knowledge and public relations.

Quantitative research results

The results of the level analysis of factors affecting the development of community well-being of village health volunteers during the COVID-19 outbreak Aranyaprathet district, Sa Kaeo Province overall, it was at the highest level. The factors with the highest average values were personal and family factors, followed by the VHWs factor, and the lowest averages were the factors of community leaders, the hospital director, and local leaders, as shown in Table 1.

Table 1: Mean, Standard Deviation of Factors Affecting Community Wellbeing Development

No	Affecting factors	\bar{X}	S.D.	Level of opinion	Ranked
1.	Personal and family factors	4.63	0.48	Highest	1
2.	Factors of community leader, HPH directors, local leaders	4.56	0.50	Highest	3
3.	VHWs factors	4.61	0.49	Highest	2
	Total	4.60	0.49	Highest	

If taking consideration in each aspect, it is found as follows:

1) Overall personal and family factors were at the highest level of value. The item with the highest average was the carrying alcohol gel with them and frequently washing their hands, followed by the willingness to teach family members to wear protective devices all the time. The item with the average value at the lowest level was that an understanding of the occurrence of COVID-19.

2) Factors of community leaders, directors of the Health Promotion Hospital, and local leaders in overall value was at the highest level. The item with the highest average value was that the people in the community seriously cooperated and acted in accordance with the advice of the authorities, for example, refraining from social gatherings, avoiding the crowded, followed by people wearing masks when leaving home and meeting people. The item with the lowest average was the training sessions for educating them to understand how to prevent COVID-19.

3) The overall VHV factors were at the highest level. The item with the highest average value was VHVs working well in helping the community to prevent the spread of COVID-19, followed by VHVs seriously taking care of COVID-19 prevention. The item with the lowest average value was that the village health volunteers wore masks when leaving home and meeting people every time.

1. Analysis of community wellbeing level with participation of village health volunteers during the COVID-19 outbreak in Aranyaprathet district, Sa Kaeo province, was at the highest level. The aspect with the highest average value was the return of benefits to the community, followed by the implementation of the planned community well-being, participatory wellbeing planning aspect. The lowest average value was the aspect of monitoring and evaluating community wellbeing, as shown in Table 2.

Table 2 Mean, Standard Deviation of Participatory Community Wellbeing

No	Participatory Community Wellbeing	\bar{X}	S.D.	Levels of opinion	Ranked
1	Planning of participatory community wellbeing	4.57	0.49	Highest	3
2	Planned implementation of community wellbeing	4.62	0.48	Highest	2
3	Monitoring and evaluating community wellbeing	4.51	0.50	Highest	4
4	Returning benefit to community	4.72	0.44	Highest	1
Total		4.61	0.48	Highest	

If taking consideration in each aspect, it is found as follows:

- 1) Participatory community wellbeing planning in overall was at the highest level. The item with

the highest value was the participation in the planning, monitoring, and evaluation of the project or activities to prevent COVID-19 disease, followed by participation in planning to benefit the community from the project or activities to prevent COVID-19. The item with the lowest average value was the participation in planning solutions to prevent COVID-19 disease.

2) The aspect of implementing community wellbeing according to the plan in overall was at the highest level. When considering each item, it was found that the item with the highest average value was that the community had sufficiently supported resources for the project or activities to prevent the spread of COVID-19, such as distributing face masks, alcohol gel, and others. The second rank was that receiving information and communication relation of project or activities from communities for preventing COVID-19. The item with the lowest average value was the participation in activities or projects to prevent COVID-19 disease.

3) The aspect of monitoring and evaluating overall community wellbeing was at the highest level. The item with the highest average value was the knowing results of the project or activities to prevent the spread of COVID-19, followed by the knowing date, time and place where the community monitored and evaluated the project or activities to prevent the spread of COVID-19. The item with the lowest average value was the satisfaction with the work of the village health volunteers to prevent the spread of COVID-19 in the community.

4) The aspect of returning benefits to the community, in overall, was at the highest level. The item with the highest mean was that the community had the implemented activities or projects to prevent the spread of COVID-19 with the community participation in every step. It was followed by receiving knowledge of the benefits of projects or activities to prevent the spread of COVID-19 to the community periodically. The lowest average value was that the community benefited the most from working on the COVID-19 prevention program of the community management team.

3. The results of the analysis of the relationship between factors affecting the development of community well-being and the participatory community well-being of village health volunteers during the COVID-19 outbreak, Aranyaprathet district, Sa Kaeo province had a positive relationship with statistical significance at the .01 level, as shown in Table 3.

Table 3 Correlation coefficients between factors affecting the development of community well-being (X) and participatory community well-being (Y).

Variables	X ₁	X ₂	X ₃	Y
X ₁	1.00			
X ₂	.304**	1.00		
X ₃	.799**	.323**	1.00	
Y	.588**	.360**	.583**	1.00

**	symbol of	degree of significance .01
X1	symbol of	personal and family factors
X2	symbol of	factors of community leader, community hospital director, HPH directors, community leaders
X3	symbol of	VHWs’ factors
Y	symbol of	participatory community wellbeing

4. The results of analysis of factors affecting the participatory community well-being development found that all 3 factors together predicted the well-being of community with volunteers’ participation during the COVID-19 outbreak, in Aranyaprathet district, Sa Kaeo province., the factors were personal and family factors, village health volunteer factors, and community leaders, the health promotion hospital directors, and local leaders could jointly predict 40.90% with a statistical significance at the .01 level, as shown in Table 4.

Table 4 Results of Multiple Regression Analysis of Factors Affecting Participatory Community Wellbeing Development

Model	<i>b</i>	<i>S.E.b</i>	β	<i>t</i>	<i>Sig</i>
Constant	1.235	.238		5.191	.000
Personal and family factors (X_1)	.322	.070	.316	4.584	.000
VHWs’ factors (X_3)	.234	.059	.274	3.958	.000
Factors of community leader, HPH directors, local leaders(X_2)	.176	.044	.176	4.017	.000
R = .640, R ² = .409, S.E. _{est} = .17505, F = 80.071, P = .000					

** $p \leq .01$

3. Guidelines for participatory community wellbeing development during the COVID-19 outbreak through village health volunteers and those involved in community health in Aranyaprathet district, Sa Kaeo province.

After the researchers concluded the results of the quantitative data analysis from the three factors affecting the development of participatory community wellbeing, which could together predict the levels of the participatory community wellbeing through village health volunteers during the epidemic COVID-19 in Aranyaprathet district, Sa Kaeo province. The factors were the personal and family factors, village health volunteers, and community leaders together with the hospital directors and local leaders. Participatory community wellbeing development included planning,

implementation, monitoring, and evaluation processes, and returning benefits to the community. Then, the factors found were used to integrate into the elements of the first draft guideline for bringing in a focus group discussion among 10 experts who gave additional comments. The result of the focus group discussion found that the participatory community wellbeing development approach through village health volunteers during the outbreak of COVID-19 in Aranyaprasat district, Sa Kaeo province, as shown in Figure 1.

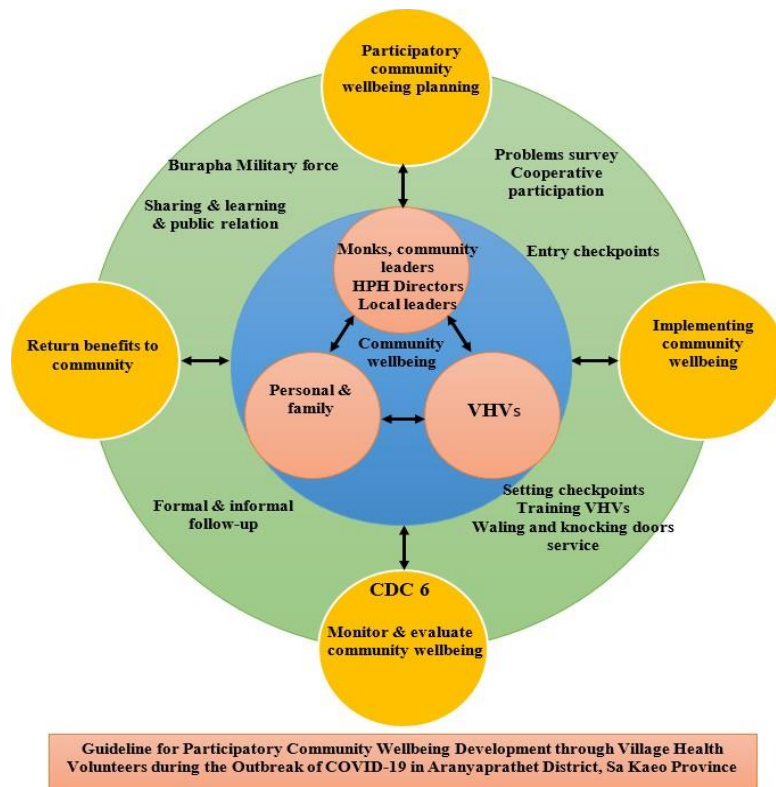


Figure 1 Guideline for participatory community wellbeing development through village health volunteers during the outbreak of COVID-19 in Aranyaprasat district, Sa Kaeo province

From Figure 1, the participatory community wellbeing development guideline of village health volunteers during the outbreak of COVID-19 (COVID-19) in Aranyaprasat district, Sa Kaeo province, consists of three innermost factors affecting the development of community wellbeing and participation processes through the 4-step process; the characteristics of the 3 main factors are as follows.

1. Factors of community leaders, the directors of health promotion hospitals, monks, and local

leaders refer to people who have a leadership role in each aspect of preventing the spread of COVID-19 in the community, including community leaders, that is, sub-district headmen and village headmen. Directors of Tambon Health Promotion Hospital (Director of Sub-District Hospital) refer to community health leaders while local leaders refer to the mayor or the Presidents of the Tambon Administrative Organizations (Subdistrict Administrative Organizations) and include the monks, the temples' abbots who also function as people's spiritual leaders in the community. The characteristics of leaders in each aspect had functions to determine policy and support budget for community practices; they had high responsibilities by taking big efforts in their works, dedicating themselves with seriousness, commitment, role model, creativeness, skillfulness in solving emerging difficulties, and most importantly team-working and having the same goal, that is, to prevent COVID-19 pandemic in community.

2. The VHV factors: VHVs refer to people who are selected from villagers in each village and receive training according to the curriculum set by the Ministry of Public Health. They have an important role as a leader for changing health behavior (change agent) by giving advice, disseminating knowledge, planning, and coordinating public health development activities. They also can provide various public health services within the scope of functions set by the Ministry of Public Health, working with voluntary spirit and sacrificing themselves to the people in the village; they have no salary but only small amount of monthly compensation. They are responsible for household health care in their village/community, one VHV for 10-15 households. The characteristics of VHVs should be diligent, patient, highly determined, indomitable, sacrificed for public, compassionate, knowledgeable, and be a role model at the standard of practices for preventing COVID-19 endemic in the community, set by the government and director of sub-district health promotion hospital. VHVs must have good communication skills and self-learning attitude.

3. Personal and family factors refer to people living in the community.

The characteristics of this personal and family must be interested in taking care of their own health to prevent COVID-19, listening to the advice, and doing in accordance with the measures of the village health volunteers, the director of the hospital, public health personnel, subdistrict chiefs, village chiefs, village headmen, government personnel, and the sub-district health statute. They must tell their own family members to follow health practice regularly, not indifferent, working together to help each other according to their condition and aptitude to focus on preventing the spread of disease-19 in the community with a self-reliant concept to help one another as much as possible. All three factors are the innermost factors of this approach because they are integrated into an important center for community well-being and must collaboratively work as joined forces in unity, working together, connecting all three factors, so the operation would be successful. Therefore, a double-sided arrowhead is used to indicate a relationship that

cannot be separated from each other which requires coordination with relevant agencies, including the Eastern Military Force, Immigration Division, and the Center for Disease Control 6. That is, the staff in each department must realize the importance of implementing measures and strictness during the epidemic of COVID-19. They all participated in finding ways to develop community well-being.

Participatory working process through the 4-step procedure as follows:

Step 1: Participatory planning of community wellness:

In this step, it includes a search for the problem of COVID-19 and needs of people in the community, plan for solutions to meet the needs of people or communities to achieve the greatest community wellbeing. It consists of activities to explore problems, mobilize participation, and propose solutions to the problems by themselves to form a guideline for the participatory community wellbeing development during the outbreak of COVID-19 until the Tambon Health Constitution was enacted. Then, it is to make an agreement or a joint agreement or a joint action plan, and announce it for general information, both formal and informal. Village health volunteers and village leaders would be the key persons in communicating and spreading the news to let people know and adhere in practice. Village health volunteers and village leaders must be voluntary sacrificing their own happiness for the sake of the public. Most importantly, they must pay attention to their health and have discipline in their actions to prevent COVID-19, both for themselves, their families, and their communities, to be an example of how to conduct their lives according to the measures. By being role model, they could encourage people in the community to see the importance of health behavior and willing to cooperate to solve community problems. They could be leaders in the community for COVID-19 prevention activities. These would be a solution to community problems by using the community participation process and become the foundation for sustainable practices in the future.

Step 2 Participatory implementing the community wellbeing as the planned:

It is a process of implementing the plan or statute of sub-district health as determined. This affects the practice that everyone in the community must jointly follow the measures to prevent the spread of COVID-19 in the community to have complete physical, mental, emotional and community well-being. The main activity is the activity of setting up screening checkpoints for people traveling in and out of the village. To screen people who are at risk of spreading the virus in the community, measures have been put in place to screen people traveling in and out of the village, with volunteers responsible for 24-hour duty and asking for cooperation from people in the community to adhere to the measures. VHVs communicate, publicize, provide practical information, record, and register the number of people entering and leaving the village to ensure they have body temperature check, wear a mask, and spray disinfectant to the cars that enter and exit the village. Information would be reported daily to the president of Tambon Administrative

Organizations and the directors of Tambon Health Promotion Hospitals.

Door-knocking activity by village health volunteers:

VHVs visited people at home to knock the door and give advice about self-care in each household and their neighbors on a regular basis. They let the public know and be aware of how to practice according to the new normal daily life guidelines (new normal) during the crisis of the COVID-19 epidemic and encouraged people to practice social distancing, wear a mask, and have vaccination. At the same time, the risk group in the village would also be screened for suspected symptoms of COVID-19. If they found any renters with problems and unpassed the screen criteria, they would proceed according to the system. If there was a problem, they would report the director of the hospital to help quickly solve the problem. To make sure that they had checked all people, they would not overlook even single person. Otherwise, there might be a problem as a source of infection. VHVs must work to reach the target group and always think proactively.

Step 3: Participatory Monitor and evaluation of community wellbeing:

It is both formal and informal follow-ups. The village health volunteers are the main responsible for monitoring and evaluating performance outcomes. The community leaders together with the directors of health promotion hospital, village leaders and all parties involved in monitoring and evaluation. They participated in both formal meeting follow-up that organized every month, and informal meeting follow-up, such as talking and admonishing each other when meeting people who did not wear masks, or children refused to be back in their houses before 10 p.m. according to the rules of the community. After monitoring and evaluation, VHVs would summarize the report of the joint performance to let the community learn and aware of their own strengths and weaknesses for using as data for further efficient development.

Step 4 Returning benefits to the community:

It is the process of summarizing the performance and bringing the knowledge back to the community. Its aims are to create pride of performance the successful work and to be a guideline for further development as well as to be a good model for application in other communities for creating public pride and promoting the community to have a good quality of life in all aspects.

Discussion

The researchers present some interesting points as follows.

The issue that some people did not cooperate in complying with government measures.

According to the research results, it was found that the current conditions during the COVID-19 epidemic, there were measures to strictly control the spread of the disease according to the state's

regulations. Directors of Tambon Health Promoting Hospitals, Village health volunteers, sub-district headmen, and village headmen realized the importance of conducting themselves appropriately according to their individual roles and responsibilities. Apparent problem was that there was the lack of cooperation from some people. Some traveled without notifying community leaders; some gathered as group without keeping social distancing, no self-quarantine, lack of good communication, and lack of knowledge about managing the COVID-19 outbreak. Some people did not wear masks. These findings were consistent with Yaowalak Ban Pho (2021, p. 51 - 52), who found that the problems and obstacles in the prevention of COVID-19 were non-cooperation, not wearing a mask, lack of tools and equipment, lack of knowledge and understanding about COVID-19, and communication, no self-quarantine while having monitor symptoms, and delays in performance. Difficulty in reaching the public, and insufficient budget for implementation were consistent with Ananyaporn Imjongjairak (2019, pp. 134 - 136), who found that the problems and obstacles in the prevention of COVID-19 were that people lacked knowledge, Lack of understanding in participatory community wellbeing development, and limitation of budget, and community contexts that were not conducive to development. As a result, the development of community wellbeing still lacked consistency. The community still lacked good communication or public relations, causing that community members did not understand the information and not aware of the importance of developing community wellbeing. This might be due to those measures implemented in Thailand came from the Ministry of Public Health, the only one that announced to treat all communities equally and at the same time and was also an emerging disease that had never happened before and involved modifying human behavior with different perceptions and awareness. Therefore, it took time to communicate with the people. Therefore, it was found that some people cooperated, and some did not cooperate as they should.

Components of participatory community wellbeing development through village health volunteers during the COVID-19 epidemic in Aranyaprathet district, Sa Kaeo province were appropriate and able to operate effectively in the context of Thailand. From the results of the study of components of participatory community wellbeing development during the COVID-19 outbreak through village health volunteers and those involved in community health, it was found that the factors contributing to successful development of community health were: 1) personal and family factors; 2) factors of community leaders, THPH directors, monks, and local leaders; and 3) VHV's factors. And the participatory community wellbeing development process consisted of 1) participatory planning of community wellbeing, 2) community wellbeing implementation according to the planned, 3) monitoring and evaluation of community wellbeing, and 4) returning benefits to the community. There were also other related activities, including 1) surveying problems, mobilizing participation, 2) implementing well-being plans, 3) doing formal and informal follow-ups, and 4) sharing knowledge and public relations. This might be because

everyone in the community was aware and fear of dying from the disease. They perceived the importance of prevention and participation in the analysis of problem situations and ways to solve problems from the beginning, both formally and with voluntary spirit. These resulted in components of community well-being development in participatory ways during the outbreak of COVID-19, which led to successful implementation of community wellbeing development with community participation. These were consistent with Rattayaphit Ratchatawan *et al.* (2018, p 231) stating that the community participatory development process was a process that encouraged the interaction of the related people or stakeholders in the community with actions that led to exchange and created mutual understanding to achieve community goals with a shared sense of responsibility. This resulted in the needs that corresponding to the way of life of people in the community.

This was consistent with Kanchana Panyatorn *et al.* (2021, p 199-200) that found that the community participatory development process in preventing COVID-19 disease was planned for community leaders to realize the importance of the COVID-19 problem, know the problems of past operations, propose activities to prevent disease, and implement the plan by educating about COVID-19 disease, strengthening risk awareness and the severity of COVID-19. Advocating perception of risk and severity of disease was implemented by the village health volunteers, and nursing students; the activities included providing information on disease outbreaks every day, doing a survey about COVID-19 prevention behaviors in households, schools, and temples, reviewing measures of COVID-19 prevention in the community, observing COVID-19 prevention behaviors of community leaders, and representatives of household members.

The reflection of performance was done by returning information to the community and taking lessons to be information that reflected the performance in each cycle. This might be due to that the management of the problem in the first period Thailand had set measures from the central government through all government agencies to cooperate in prevention of COVID-19 pandemic. There was also an increasing number of deaths, because the disease still could not be treated. As a result, every agency, every sector, and most people paid attention to the operation. In the context of the participation of all sectors in the community in Aranyaprathet district, it was found that this community used to have some educational agencies to do research in the area many times enabled local leaders had high leadership, vision, and discipline to control and prevent COVID-19. There were also potential monks who were spiritual leaders in the community had participated in preaching and helping the quarantine facilities because the hospital did not have enough beds.

The monks could take alms for food and give for those who were at risk to eat free of charge. So, it was found that this community could be a model for other places. In other words, this component of participatory community well-being development was appropriate to the Buddhist

context and could be implemented effectively.

Community wellbeing development with participation of village health volunteers during the COVID-19 outbreak Aranyaprathet district, Sa Kaeo province showed good cooperation.

The analysis results of the level of the participatory community wellbeing through village health volunteers during the COVID-19 outbreak in Aranyaprathet district, Sa Kaeo province, in overall was at the highest level. This might be because the participatory community well-being development was successful requiring the step-by-step management process, including shared thinking, shared participatory wellbeing planning, shared participatory implementing community wellbeing as planned, monitoring, and evaluating community wellbeing, and returning benefits to the community. In addition, the four sub-activities in each process included problem survey, mobilization of participation, Implementation of planned wellbeing, formal and informal follow up, and exchange knowledge and public relations. These findings were consistent with Ratthayaphit Ratchatawan *et al.* (2018, p 237) stating that community participation in well-being development by participatory action research was important. It was a process of true participation, consisting of participation in planning, participation in implementation of activities, shared advantage, shared benefits, and participated evaluation. The results of the process of true participation of community in wellbeing development would be value directly to the quality of life of those who had been developed. It was due to the distribution of benefits to the community which gave the community the potential for continuous development and eventually became self-reliant. This was consistent with Thanat Baiya and Wichai Nilkong (2020, pp 25 – 26) stating that community wellbeing development with participatory management required situational study of the community wellbeing management, a wide range of health management, participation of various network partners in each area. Participatory community wellbeing management model began with creating a common concept of people in the community, using the concept of self-reliance, and starting from small points, from volunteers and leaders; the process included self-reviewing, setting goals, issues and plans to drive together, building the village/sub-district leadership team, carrying out activities, developing based on some good things existing in the community, creating standard measures, community statute, connecting with working network partners in the area and outside the area, and summarizing lessons and evaluating them together. These processes could strengthen groups and communities and reduce health risk factors. The results were consistent with Punyanin Khuenpet and Lamnow Wongjai (2016, p. 103) stating that the community participation process was a concept that people in the community must participate in receiving information and news, or perceiving health problems in the community, shared thinking, shared planning for forming guidelines for implementing activities, shared benefits and participating in the evaluation. It was to promote the good health behaviors, which health professionals at primary care level were important in promoting health

through which depended on community participation process to create learning and developing the sustainable healthy community. It was in line with Ananporn Imjongjairak (2019, pp 142-143), stating that the development of community well-being could be achieved through which people in the community had to work well together as one, through the process of creating participation for people in the community to have the opportunity from co-thinking, co-planning, co-deciding, co-operating, co-following and evaluating participation in maintaining good health to drive the community to move forward for further development.

This might be because the epidemic was so severe and not yet known how to treat it in the early stages, as well as the lack of a comprehensive preventive vaccine, causing public health officials, doctors, nurses, village health volunteers, village chiefs, village chiefs, and all volunteers in Thailand come to work together and do everything possible to stop the outbreak. Therefore, it was found that the results of participatory community wellbeing analysis of village health volunteers during the COVID-19 outbreak Aranyaprathet district, Sa Kaeo province was at the highest level.

Suggestions

Suggestions for applying the research results:

1. From the study on factors affecting the development of community wellbeing through village health volunteers' participation during the COVID-19 outbreak, in Aranyaprathet district, Sa Kaeo province, factors of community leaders, the directors of Health Promotion Hospitals, and local leaders had overall value at the highest level. However, it was ranked in the last order. Therefore, managers should emphasize the community leaders, health promotion directors and local leaders provided and ensured the services to reach more people by considering the safety and health of the service recipients by adhering to the highest professional morality and ethics, such as knocking on the door of the house by VHVs. Or they could walk to visit and meet people to inquire about their happiness monthly so that they could listen to their problems and bring the problems back to fix them. After that, they could report the problems' solutions to people. If they could achieve what they were expected to do, they could be more accessible to the public.

2. From the study, it was found that the participatory community well-being through village health volunteers during the COVID-19 outbreak in Aranyaprathet district, Sa Kaeo province, the aspect of monitoring and evaluating community wellbeing overall was at the highest level but ranked the last. Therefore, village health volunteers and those involved in community wellbeing should organize the management or setting up a system or finding a strategy to give people from all sectors the opportunity to participate in expressing their ideas creatively or participating as a team in monitoring and evaluating periodically in development of community and local well-being to stimulate the monitoring of practice and to bring information to improve efficiency. Not

only did they assign the work according to roles and duties, but also, they might use the method of requesting volunteers to follow up on the compliance and practice at and bring information to report at the meeting to receive information for further development.

3. From the study, it was found that the community well-being development guidelines for preventing the spread of COVID-19 was appropriate for use in districts that had the context close to Aranyaprathet, such as Khok Sung district, Sa Kaeo Province. Therefore, it was proposed that nearby districts adopt the participatory community wellbeing development during the COVID-19 outbreak through village health volunteers and those involved in community wellbeing in Aranyaprathet district, Sa Kaeo province. It could be used as information for determining important policies for improving community wellbeing to promote participation by all parties in management, prevention and control of COVID-19 and emerging diseases in the future. It should emphasize that everyone in the community is important and must work together to act strictly and earnestly without refraining to be truly beneficial and preventable. Especially the volunteers in the area, they know most local people; they are the main force in visiting and knocking on the door of every house. Their activities include screening everyone with clear communication; Sub-district Administrative Organizations, sub-district headmen, village headmen should set up checkpoints at the enter and exit of the villages with strict measures and allocating sufficient budget. Public health executives should keep educating and understanding about the disease and encourage teams of village health volunteers. People follow the measures in practices and support the operation by donating the necessities. Most importantly, everyone must strive, believe in the team, cooperate, and encourage each other to aim for the same goal of disease prevention and control.

4. According to research findings, it was a problem that risk management remuneration of health personnel was delayed. Later, it was found that the Ministry of Public Health had already allocated a budget disbursement according to work reports and established criteria. However, it was found that during the delay of budget, it caused some health personnel lack morale in working. Therefore, it would be proposed that policymakers should set up a reserved budget to be used in case of unexpected or emergency situations to facilitate management.

5. From the study it was found that Village Health Volunteers had burden workload in both regular health care work, at the rate of 1:10-15 households, and their tasks for distributing chronic disease medicines to NCD patients to reduce hospital visits during the COVID-19 outbreak. Although volunteers had some degree of knowledge through the training, their knowledge might not be sufficient to perform their additional tasks. Therefore, it is proposed that the public health administrators consider the appropriateness of the workload of village health volunteers to be appropriate in the present and the future. It may consider reducing the number of responsible households or increasing the number of village health volunteers in each

area.

6. According to the study, there was a problem of insufficient communication of information; therefore, it is suggested to set up a center for accidents or emerging diseases specifically to manage the overall situation without being too burden to public health workers who have regular work. It is proposed that policy makers at the level of Ministry of Public Health should consider establishing an agency dealing with emerging disease management or various disasters that have never happened or are expected to occur in the border areas; it may be piloted at Aranyaprathet district to manage and find ways to manage it efficiently. It would be a role model for other areas.

Suggestions for further research

1. There should be a follow-up study and evaluation for the development of community well-being by the village health volunteers during the COVID-19 outbreak, in Aranyaprathet district, Sa Kaeo dprovince.
2. There should be a study on the competency model of community leaders, the directors of the Health Promotion Hospitals, and local leaders whose roles and functions affect the development of community well-being through the village health volunteers during the COVID-19 outbreak, in Aranyaprathet district Sa Kaeo province. It should be a mixed method between quantitative and qualitative research to result in quality results.

Acknowledgment

This research was funded by the National Research Council of Thailand for the fiscal year 2021. I would like to thank all committees from the National Research Council for their advice, and suggestions for improving this research. Thanks to Rajabhat Rajanagarindra University for supporting the research. I would like to express my deep gratitude to the monks of Pa Mok Thammaram temple and the abbot of Thap Phrik temple. The president of the Tambon Administrative Organization, the sub-district headmen, the village headmen, the village health volunteers, and all the people who kindly cooperated in collecting the data for this research.



References

- Department of Disease Control. (2021). Guidelines for surveillance, prevention, and control of Corona Virus infection 2019. Bangkok: Division of General Communicable Diseases.
- Department of Health Service Support. (2011). Handbook of village health volunteers in the new

era. Bangkok: Agricultural Co-operative Association of Thailand. Bangkok Business (2021).

The governor of Sa Kaeo ordered the establishment of checkpoints, five entry-exit points, 24 hours a day to prevent COVID-19. Accessed on 18th January 2021 from <https://www.bangkokbiznews.com/news/915900>.

Kanlaya Wanichbancha. (2007). Statistical Analysis: Statistics for Administration and Research. (10th edition), Bangkok: Chulalongkorn University.

Kanchana Panyatorn et al. (2021, January - June). Community participation in prevention of COVID-19, Ban Nong Sawan, Chiang Phin Subdistrict, Mueang District, Udon Thani Province. Journal Prapokklao College of Nursing, Chanthaburi, 32(1), 189 – 204.

Kittiporn Naosuwan, Phacha Singwiratham and Vaporn Damsaengsawat. (2020). The relationship between the perception of the severity of the disease affecting the role of control operations. Coronavirus disease 2019 in the community of Village Health Volunteers (VHVs) in Thailand. Journal of Bamrasnaradura Infectious Diseases Institute, 14(4),92-103.

Thanat Baiya and Wichai Nilkong. (2020, May-August). Developing Participatory Community Wellbeing based on Sufficiency Economy Philosophy, Nan Province. Journal of the Department of Health Service Support, 16 (2), 25-36.

Punyanin Khueanpet and Lamnow Wongjai. (2016). The effectiveness of the community participation process in modifying obesity behavior among the elderly in the health service network, Mae Lao District. Chiang Rai Medical Journal, 7(1), 103 – 112.

Pattaraphon Jungsomjatepaisan and Santi Tuaymirit. (2021, May-June). The development of the operational model of village health volunteers in the prevention of coronavirus

disease 2019, Nakhon Ratchasima Province. Public Health Journal, 30(3), 490 – 499 Yaowalak Pho villagers. (2021, January-April). The role of village health volunteers in

preventing infectious disease outbreaks new strain of corona virus 2019, Phra Pradaeng District, Samut Prakan Province. Journal of Public Administration. Suan Sunandha Rajabhat University, 4(1), 44 – 58.

Ratthayaphit Ratchatawan et al. (2018, January-June). Community Participation Process in Well-Being Development. Southern Technology Journal, 11(1), 231 – 238.

Wichai Siriworawatchai (2021, January - June). Factors affecting the performance according to the role of village health volunteers in Surveillance and prevention of COVID-19, Phu Phiang District, Nan Province. Maharat Nakhon Si Thammarat Vejsarn, 4(2), 63-75.

Sorawut Iamnui. (2021, May–August). Factors Affecting Roles and Performance of Village Health Volunteers in surveillance and prevention of COVID-19, Kong Krailat District, Sukhothai Province. Journal of Public Health and Health Studies. 1(2), 75 – 90.

Ananporn Imjongjairak (2019). Factors Affecting Success in Community Development in Well-Being Areas. Phasi Charoen District, Bangkok. Master of Arts Thesis Administration social development National Institute of Development Administration.

Oranas Yuangtong. (2014, July – September). Evaluation of the Strong Community Participation for Disease Control District Project. Surat Thani province. Journal of Medicine Regional 11, 28(3), 629-635.

Cronbach, L. J. (1990). Essential of psychological testing (5thed.). New York: Harper Collins. Krejcie, R.V. & Morgan, D.W. (1970). Educational and Psychological Measurement. New York:

Minnesota University.

- Patton QM. (1990). Qualitative evaluation and research methods. (2nd ed). Newbury Park, CA: Sage.
- WHO. (2020). Thailand's 1 million village health volunteers - "unsung heroes" –are helping guard communities nationwide from COVID-19. Retrieved from <https://www.who.int/thailand/news/feature-stories/detail/thailands-1-million-village-health-volunteers-unsung-heroes-are-helping-guard-communities-nationwide-from-COVID-19> 20 August 2020.