

## **Enhancing Community Participation to Create Safe Areas in Response to the Spread of the Covid-19 Virus in Kalayani Vadhana District, Chiang Mai Province**

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### **Abstract**

This research on the enhancement of community participation to create safe areas in response to the spread of the COVID-19 virus in the area of Kalayani Vadhana district, Chiang Mai province was conducted with the objectives to study the behavior of people in communities in the period before the occurrence of the spread, during the pandemic, and after relaxation of the measures of control of the government, to study the role of communities for the enhancement of participation in preventing the spread of the virus, and to propose guidelines for community participation to create areas that are safe from the spread of the virus. The research was conducted as a mixed methods approach by using a system of research methods combining three types, which were 1) documentary research, 2) a quantitative research set, and 3) qualitative research with in-depth interviews and focus groups. The research results indicate that the behavior of people in communities in the period before the occurrence of the spread was that some groups of people in communities gathered together to form large clusters. With regard to health, some groups were interested in matters of health and wellness, whereas other groups neglected them. The behavior during the pandemic included people in communities implementing social distancing, taking care of the health of both themselves and the people around them, and doing more activities inside their homes, and as for the behavior after the relaxation of the measures of control of the government, some groups of people in communities returned to living life normally, but most people in communities have continued taking precautions in terms of their health. The role of communities is considered to be the process that encourages the relationships of people in communities and the government agencies in areas as well as taking the actions that lead to the exchange and adjustment of methods and the monitoring and prevention of the pandemic that are specific to the context of each area, which is an effective way to create safe areas by using the mechanisms of Action Research.

**Keywords:** participation, safe areas, pandemic, the COVID-19 virus, Kalayani Vadhana district, Chiang Mai province

### **Introduction**

The outbreak of the infectious coronavirus disease 2019 (COVID-19) began in December 2019 by first being found in the city of Wuhan, the capital of Hubei province, People's Republic of China, which is the most populous city in the central region of China with more than 19 million people. On 30 December 2019, the Office of Public Health of the

City of Wuhan, Hubei province issued an official announcement that an idiopathic pneumonia had been found, which was associated with a seafood market in the city of Wuhan, China (Department of Disease Control, 2022, online). Thereafter, the outbreak spread rapidly, and there were very many deaths. Afterwards, the spread of a new species of the virus was found in the city of Wuhan, China, and the World Health Organization (WHO) issued a statement that the species of virus as mentioned was found to be transmitted from person to person through small droplets. Some time later, the WHO announced the COVID-19 pandemic with the number of cases increasing outside of China very rapidly, for example, in South Korea, Italy, Iran, Spain and France. Many new cases were being found around the world increasing by around 3,000-4,000 cases per day and the number of deaths increased by approximately 200-300 cases per day. The mortality rate from the disease was approximately 3.5% (Zyoud et al., 2020). Moreover, the COVID-19 virus also had an impact on the population that suffer from various diseases such as diabetes, respiratory diseases, chronic diseases, etc. These groups of people have a higher risk of becoming infected by the COVID-19 virus, which corresponds with the research article of Gupta which stated that groups of people that have congenital diseases have a chance to become infected by the COVID-19 virus that is higher than the groups of people who are well. Therefore, they should mainly avoid participation in various social activities (Gupta et al., 2020).

For Thailand, due to the situation of the outbreak of the coronavirus 2019 infectious disease outbreaks occurring around the world, the Department of Disease Control opened the Emergency Operation Center (EOC) on 4 January 2020 for the response to the outbreak of the infectious coronavirus disease 2019 and began screening for infected persons at the entrance and exit points of the country. The first cases of infected persons that were found were Chinese tourists who traveled to Thailand; some time later, there were reports of finding the first infected Thai person, a taxi driver who did not have a travel history to other countries but had previously provided taxi services to Chinese visitors who were infected. Soon afterward, the number of cases increased continuously for both patients that traveled from overseas countries and domestic cases. Based on this situation, the Ministry of Public Health issued an announcement in the Government Gazette that, effective starting on 1 March 2020, it was determined that the coronavirus disease 2019, or COVID-19, is an infectious disease with the danger level of 14. According to the Communicable Diseases Act 2015, for the benefits from the surveillance, prevention and control of dangerous communicable diseases in the following period of time, it was determined that it was a pandemic as the infections were occurring in clusters. The spread continued in boxing stadiums and entertainment venues in the areas of Bangkok, which are places where there are gatherings of very large groups of people and the accompanying congestion. At this time, there was an announcement to close the city in the area of Bangkok, resulting in the movement of the population to the provinces, allowing people to come into contact and spread the disease into various provinces, which caused the total number of infected persons of Thailand to increase rapidly. Thus, the government needed to enhance the management of services. The situation of the spread of COVID-19 in Thailand was kept within a limited range by the order of government departments, state enterprises, and agencies working together inside the scope of their legal authority and the establishment of an administrative center for the situation of the spread of the coronavirus 2019 infectious disease and enhancement of the measures for the surveillance and control of the spread of COVID-19 in Thailand. The Ministry of Public Health implemented urgent measures intended to prevent a crisis resulting from the coronavirus 2019 infectious disease through a consensus from the Cabinet and a request for the participation of government agencies and all of the private

sector to take action according to the measures mentioned so as to achieve tangible effects (Department of Disease Control, 2022, online).

Living life in the “new normal” involves a novel way of daily life that is different from the past due to there being several things that impact the plans and guidelines, and the behavior that people in society consider familiar, normal and expected to be predictable must change to a new way of life under the principles of the new measures that are unfamiliar, consisting of ways of thinking, ways of learning, ways of communicating, and ways of behaving, and as a result, the management of a new type of living life has emerged. Afterwards, one of the largest and most radical changes occurred, which forced people to adapt in order to cope with the present situation more than maintain the traditional ways from the past. This had an impact on the lifestyles of people in communities, both directly and indirectly, and made people in communities experience stress persistently. Moreover, when they had to face the situation of the spread of the COVID-19 virus, people in communities needed to live life and adapt to a new way of living that is different from the past and requires a change to a new lifestyle known as the “new normal” under the new unfamiliar standards for doing activities outside their homes, such as going to make merit at the temple, joining various other activities in communities that required keeping meters away from others, wearing a face mask when leaving home, washing hands frequently when touching unclean items or using alcohol gel to sanitize hands, passing through screening for the disease before joining activities in various places to respond to the situation that has changed so as to continue to live in their communities and society normally and happily.

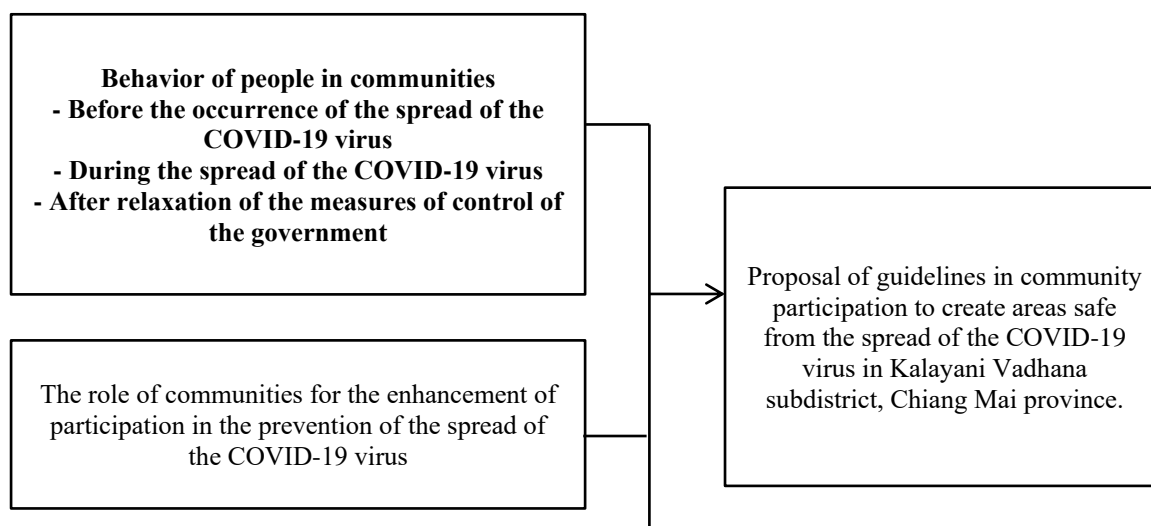
Kalayani Vadhana district is the 25th district of Chiang Mai province, which is a new district that was created from Mae Chaem district, Chiang Mai province. There is a large area of forest, high hills and wilderness, travel is difficult, the system of bureaucratic care is not thorough regarding the problems involving basic infrastructure, and communication between districts, subdistricts, and villages is difficult and inconvenient due to the wide areas and being located in a national forest. Development of various infrastructure is therefore difficult to accomplish, including problems in terms of the quality of life of the population in receiving basic services from the state, which are not sufficient, especially with regard to public health, including security in the life and property of the population who live scattered in these forest areas and high mountains. These problems have had an impact on the basic public health care needs along with the spread of the COVID-19 virus in Chiang Mai province, which is at a high elevation. This inspired the researchers to become interested in conducting a study on the behavior of people in communities in the period before the occurrence of the spread of the COVID-19 virus, during the spread of the COVID-19 virus and after relaxation of the measures of control of the government as well as the role of communities for the enhancement of participation in the prevention of the spread of the COVID-19 virus and to propose guidelines in community participation to create areas that are safe from the spread of the COVID virus in Kalayani Vadhana district, Chiang Mai province.

## **Objectives**

1. To study the behavior of people in communities in the period before the occurrence of the spread of the COVID-19 virus, during the spread of the COVID-19 virus, and after relaxation of the measures of control by the government in the areas of Kalayani Vadhana district, Chiang Mai province.

2. To study the role of communities for the enhancement of participation in the prevention of the spread of the COVID-19 virus in the areas of Kalayani Vadhana district, Chiang Mai province.
3. To propose guidelines for community participation to create areas that are safe from the spread of the COVID-19 virus in the areas of Kalayani Vadhana district, Chiang Mai province.

## Conceptual Framework



## Methods

This research is a mixed methods study that can be explained as follows.

1. The research model combined three approaches, which are 1) documentary research, 2) quantitative research using a questionnaire on the behavior of people in communities with the table of Krejcie and Morgan (Srisa-ard, 2002) and a confidence level of 95%, giving the size of the sample group as not less than 169 people, and 3) qualitative research in which the researchers interviewed the main groups of the area by in-depth interviews and focus group discussions.
2. The area of Kalayani Vadhana district includes three subdistricts as follows: Ban Chan subdistrict, Mae Daet subdistrict, and Chaem Luang subdistrict. Kalayani Vadhana district is part of Chiang Mai province.

### 3. Population and the sample group

- 1) Religious leaders
- 2) Community leaders
- 3) Representatives from government agencies
- 4) Representatives from subdistrict health promotion hospitals
- 5) Village Health Volunteers representatives/community volunteers
- 6) Community representatives

## 4. Data analysis

The researchers used the method of content analysis to present the data with descriptive methods and obtained the data from statistical analysis of mean for comparison

with the criteria that was characterized as a rating scale to determine the evaluation of the criteria and additional data obtained from the interviews, the focus group discussions and from the collection of the questionnaires using analytic induction by compiling the data and classifying it systematically. Following this, the relationships were interpreted and conclusions drawn from various data that were collected simultaneously with the data collection in order to be able to study the various issues deeply, which when the issues that have been analyzed are not yet clear, there will be follow-up with the collection of additional data in these various issues in order to answer the main questions based on the objectives of the qualitative research data that has been analyzed. This is done to identify the theoretical correlations and construct the summary and conclusive proof using various academic concepts, theories, and research studies to create a conclusion together with reliable data once again by focusing on connections in order to lead to proofs that are concrete and accurate based on the facts that are apparent.

## **Results**

The behavior of people in communities before the pandemic involved going to work with peace of mind, gathering to engage in various activities in communities with some groups forming large crowds such as eating out as well as drinking alcohol in groups, organizing traditional activities with very many people coming together with joy and fun. Regarding behavior related to finances, some groups of people in communities had awareness of saving money but other groups had the opposite behavior, which was to not have financial planning and to spend extravagantly instead. Furthermore, the behavior of some groups of people in communities reflected an interest in matters of health and wellness, whereas some other groups ignored matters of good health and well-being.

The behavior of people in communities during the spread of the COVID-19 virus indicated that people in communities maintained social distancing, took care of the health of both themselves and the people around them, changed their shopping behavior and the financial planning of themselves and their families, worked from home and did activities inside their homes more frequently and turned to electronic transactions more than using cash to buy goods.

Finally, in terms of the behavior after relaxation of the measures of control of the government, people in communities returned to living life normally similar to as before the occurrence of the spread of the COVID-19 virus. Some groups of people in communities ignore the prevention of disease, but most people in communities are taking care of the health of both themselves and the people around them, especially children and the elderly, who will have the behavior that is more cautious than other groups, which can be seen from daily life. This corresponds with Taengwong et al. (2020), who studied the behavior of adapting to a new way of life after the situation of the spread of COVID-19 of the elderly in the seniors club of Lat Bua Khao subdistrict, Bang Pong district, Ratchaburi province. The research results indicated that regarding the behavior of adaptation of the elderly past working age who live in communities and their perception of news and information related with the outbreak of COVID-19, volunteers in communities give more importance to surveillance with groups of the elderly and children due to these being groups that have high risk. In addition, the members of their families have become involved in taking care of and helping with activities for the elderly in order to provide access to news and information at any place and time. In addition, importance is also given to social distancing and wearing hygienic face masks, becoming more familiar with using technology and the online world, especially online

shopping behavior, changes in the financial planning of themselves and their families, and the increased use of electronic transactions. In addition, some groups of people in communities also work from home and do activities inside their homes. However, there are also some groups who go to work outside their homes or their communities.

The role of communities in the enhancement of participation in the prevention of the spread of the COVID-19 virus is considered to be the process that encourages the relationships of people in communities and local government agencies and stakeholders as well as taking actions that lead to the exchange of knowledge and building of understanding from the start of the process until achieving the goals of communities with knowledge and responsibility as well as bringing about results for the needs that correspond with the way of living life of the people in communities of Kalayani Vadhana district. This corresponds with Kwanrieng et al. (2021), who conducted a study on the role of indigenous women regular village public health volunteers in the enhancement of community participation in order to prevent and control the epidemic of the novel coronavirus 2019 in Chiang Mai province. The research results indicated that regular village public health volunteers encourage communities to become familiar with caring for themselves and the methods for taking care of other people by providing knowledge to people in communities about the prevention of COVID-19, such as wearing a face mask consistently, sanitizing hands and maintaining physical distancing, and adapting to change, including the methods of monitoring and preventing the spread that are specific to the context of each area by having the steps as follows: 1) jointly study and analyze the problems, 2) planning to take action, 3) taking action, 4) jointly receiving the benefits, and 5) participation, monitoring and evaluating performance. This is in line with San et al. (2020), who examined Crisis management in authoritarian regimes: A comparative study of COVID-19 responses in Turkey and Iran in order to study the management during the crisis of the spread of COVID-19 by the authoritarian regimes in Iran and Turkey. The research results indicated that although these are countries that are administered as authoritarian regimes, the opportunity is open for the opposition to have participation in the design and implementation of the policies and decisions regarding public health. In addition, Wongpathomtip (2017) also stated that participation is the most important factor in the prevention and control of disease of the regular village public health volunteers, whether it is participation in public relations, surveillance of disease, or the prevention and control of disease and receiving various types of training.

Thus, for the guidelines to create areas that are safe from COVID-19, the processes that are important are the participation of the people in communities through a system and the mechanisms that have the goals in the empowerment of communities in health care by using the mechanisms of Action Research, which are as follows.

- 1) Innovation in identifying infected persons proactively in Kalayani Vadhana district is implemented by acceleration of taking actions and setting up surveillance teams throughout the three subdistricts consisting of Ban Chan subdistrict, Mae Daet subdistrict and Chaem Luang subdistrict for community x-rays and control of the transmission of germs and quarantine. Also, there are systems that persuade people who have symptoms or doubt themselves to be checked conveniently with an increase in the checkpoints in communities and in risk areas by allowing people in communities to receive news and information and data related with checkpoint services. This is in line with Wittenberg-Cox (2020), cited by Sasin Graduate Institute of Business Administration of Chulalongkorn University (2020), who mentioned that for a leader to be able to effectively solve problems in a crisis such as the spread of the disease of COVID-19, they must have the characteristics of a leader, namely have

good communication, be honest and reveal the facts, be a leader that has decisiveness, is clear and reliable in decision making, be a leader that is easily accessible, friendly, familiar with good methods of coordination and by your side in every situation, as well as be a leader that displays compassion, shows understanding and expresses concern in order to be given trust from other people. They must also be a leader who is familiar with the use of the most advanced technology in dealing with problems.

- 2) The separation of patients or infected persons from their families is a necessary measure that must be implemented urgently because there is a high risk of causing an infection of the elderly or children in their families. Therefore, allocation of areas in communities in order to quarantine must be an urgent matter, both setting up field hospitals in areas in communities that have been allocated such as the grounds of the subdistrict health promotion hospitals, temples or community halls that are convenient and hygienic in order to support newly infected persons in communities. In some cases in communities, there are infected persons who do not exhibit symptoms and they need knowledge and understanding of the maintenance of the hygiene of themselves, and isolation at home is possible if their families have sufficient accommodation. However, it must be regulated and closely follow the guidance of the public health officials in communities, public health volunteers, community leaders or surveillance teams.
- 3) Allocation of community and public health resources in communities should have allocation of resources increased for the system to investigate the disease, such as the personnel, the budget and various equipment and tools for testing for the virus and quarantine in order to accelerate the search for infected persons, especially infected persons in communities who do not exhibit symptoms by having testing proactively in the areas of Kalayani Vadhana district that rapidly have risk. Moreover, the work of the teams must be coordinated and able to communicate with various parties in communities rapidly, such as the monitoring of the status of persons that have serious symptoms and have new strategies in preparing for epidemics, which is in line with Watsawan (2014), who studied the participation of the population and the implementation of prevention and control of dengue fever of public health in the area of Mae Ka subdistrict, Phayao province. The results indicated that agencies in communities or volunteers should provide new strategies in order to allow people in communities to join activities by coordinating networks in communities continuously.
- 4) Helping the rest of the families of infected persons or quarantined persons with financial problems and stress of the family members that are quarantined or infected who are employed daily as general contractors. People in communities should set up village committees as special cases for collecting the monthly or yearly contributions of people in communities for primary objective of helping those families.
- 5) Determination of community-level policies to disseminate news and information that is accurate and clear to workers and people in communities as well as issue the criteria for operations from groups that are established to monitor COVID-19 that have clear concepts together with public health agencies at the subdistrict-level to decentralize authority for each community as well as be able to decide to take actions according to the differences of each community in Kalayani Vadhana district. Thus, decisions and implementation of the work must receive support from agencies at the

district level, respectively. In addition, there must be compliance with legal authorities.

## **Conclusions**

### ***Objective 1***

The behavior of people in communities in the period before the occurrence of the spread of the COVID-19 virus, during the spread of the COVID-19 virus, and after the relaxation of the measures of control of the government in Kalayani Vadhana district, Chiang Mai province

The behavior of people in communities prior to the pandemic included going to work with peace of mind, gathering to do various activities in communities with some groups forming large crowds, such as eating out as well as drinking alcohol in groups, and organizing traditional activities with very many people coming together with joy and fun. Regarding behavior related to the finances, some groups of people in communities had awareness of saving money but other groups had the opposite behavior, which was to not have financial planning and instead spend extravagantly. Moreover, as for the behavior of people in communities, some groups were interested in matters of health and wellness, whereas some other groups did not pay attention to health and hygiene.

As for the behavior during the spread of the virus, it was indicated that people in communities maintained social distancing, took care of the health of both themselves and the people around them, changed their shopping behavior and the financial planning of themselves and their families and worked from home more, did activities inside their homes more frequently, became more familiar with the use of technology and the online world, and conducted more electronic transactions.

With respect to the behavior after relaxation of the measures of control of the government, it was indicated that people in communities returned to living life normally similar to before the occurrence of the spread of the virus, with some groups of people in communities ignoring the prevention of the spread of the virus and others taking care of health both of themselves and the people around them. In addition, other people in communities still maintain social distancing, continue wearing hygienic face masks, have become more familiar with the use of technology and the online world, and have changed their shopping behavior and the financial planning of themselves and their families by conducting electronic transactions more frequently. Furthermore, some groups of people in communities continue to work from home and do activities inside their homes, whereas some groups still work outside.

### ***Objective 2***

The role of communities in the enhancement of participation for preventing the spread of the COVID-19 virus in Kalayani Vadhana district, Chiang Mai province

The role of communities for the enhancement of participation in the preventing of the spread of the COVID-19 virus indicated that community leaders and community committees called for meetings of the people in communities frequently and the core leaders in communities, such as village community members and public health volunteers, campaigned for the cooperation of stores and entertainment venues related with surveillance of the spread of the virus. When there were infected persons in communities, the core leaders of



communities were able to reach out to infected people and groups of people that have high risk in a timely manner. People in communities allowed the cooperation of various activities that are related with surveillance of the spread of the virus with government agencies and the private sector, including independent organizations providing knowledge related with the spread of the virus to people in communities. The core leaders of communities had good knowledge related with the risk and severity of the virus that enabled them to share advice and methods of behavior with people in communities. The core leaders in communities also conducted strict surveillance operations on the virus in communities although there was an announcement regarding relaxation of the measures of control of the government and community leaders or the core leaders currently hold meetings in order to receive policies from various work sections related with surveillance of the spread of the virus regularly.

In communities, there are centers or places to monitor the spread of the virus that were arranged by communities to have the participation of temples or religious centers in the dissemination of news related with surveillance of the spread of the virus. In communities, there are places to isolate the people infected with the virus according to the criteria and conditions of public health agencies that were determined and stores and entertainment venues in communities cooperated in various activities related with surveillance of the spread of the virus. From the impacts that resulted from the virus, communities dealing with the outbreak of the virus are certainly an important factor that must be implemented in order to control and not allow disease to spread widely in communities together with the government determining the operational strategic framework for public health in responding to the outbreak of the virus by having the goals in order to reduce infections, reduce illness and reduce deaths. These are the important strategies of the state, namely surveillance, prevention and control of the spread of the virus, by having the prevention and control of disease at the provincial level, the district level, the subdistrict level, and the village level. For the village level, the measures for the community leaders and agencies that are related and regular village public health volunteers were assigned to develop the behavior of health monitoring of risk groups, screening, coordinating work with public health officials and Village Health Volunteers.

Regular village agencies that are related report the operational results and provided knowledge related with disease and the prevention to members in households. Also, news and information related with the situation of COVID-19 must be provided in order to allow people in communities to have awareness of the risk and severity of the disease including the behavior that is appropriate by taking care with proper methods to reduce contact through secretions such as saliva and phlegm or direct contact by sanitizing hands and wiping with alcohol regularly, wearing hygienic face masks, maintaining social distancing, avoiding crowded places, etc.

### ***Objective 3***

The guidelines in participation of communities in order to create safe areas in response to the spread of the COVID-19 virus in the area of Kalayani Vadhana district, Chiang Mai province

Enhancement of participation preventing the spread of the COVID-19 virus is considered to be the process that encourages the relationships of people in communities and the government agencies in areas and stakeholders to mutually take actions that lead to the exchange of knowledge and building a common understanding from the beginning of the process until achieving the goals of communities with knowledge and responsibility, together with having an impact on needs. This is in line with the way of living life of the people in the

communities of Kalayani Vadhana district by having the steps as follows: 1) jointly studying and analyzing problems, 2) planning to take action, 3) taking action, 4) jointly receiving the benefits, and 5) the stage of participation in tracking and evaluating performance.

Thus, for the guidelines to create areas that are safe from COVID-19, the key process is the participation of the people in communities that is systematic and the mechanisms that have the goals in the empowerment of communities in health care by using the mechanisms of Action Research, which are as follows:

- 1) Innovation in identifying infected persons proactively in Kalayani Vadhana district by accelerated implementation to set up surveillance teams throughout the three subdistricts consisting of Ban Chan, Mae Daet and Chaem Luang subdistricts for the community x-rays and to control the transmission of the virus and quarantine. Moreover, there should be a system that encourages people with symptoms or doubt to get tested conveniently, an increase in the checkpoints in communities and in risk areas, and providing people in communities with news and information and data related with checkpoint services.
- 2) The measures of isolating patients or infected persons from their families is a necessary measure that must be implemented urgently because there is high risk of infecting the elderly and children in their families. Therefore, allocation of areas in communities in order to quarantine must be an urgent matter, both the setting up of field hospitals in areas in communities that have been allocated such as the grounds of subdistrict health promotion hospitals, temples or community halls in communities that are convenient and are hygienic. In order to support newly infected persons in communities, in which some cases in communities include infected persons who do not exhibit symptoms, they should have knowledge and understanding in the maintenance of the hygiene of themselves and their families. If there is sufficient accommodation to stay home in isolation, that is possible to do, but it must be regulated closely by public health officials in communities, public health volunteers, community leaders or surveillance teams.
- 3) Allocation of community resources and public health in communities should be increased for the disease investigation system, such as the personnel, the budget and the various equipment and tools for testing for the virus and isolation in order to accelerate identifying infected persons, especially infected persons in communities who do not exhibit symptoms, by rapidly having testing proactively in Kalayani Vadhana district where there is risk. Furthermore, the work of the teams must be coordinated and there should be rapid communication with various parties in communities, such as the monitoring of the status of people that have serious symptoms.
- 4) Helping the rest of the families of infected persons or quarantined persons with problems regarding the financial stress of the families of those quarantined or infected who are employed daily as general contractors. People in communities should set up village committees as special cases to collect the monthly or yearly contributions of people in communities for the objective of primarily helping those families.
- 5) Determination of community-level policies to disseminate news and information that is accurate and clear to the workers and people in communities as well as issue the criteria for operations from groups that are established in order to monitor COVID-19 that have clear thinking principles together with public health agencies at the subdistrict-level to decentralize authority for each community to decide together and be able to take actions according to the differences of each community in Kalayani

Vadhana district. Thus, decisions and operations must receive support from agencies at the district level respectively. Moreover, they must comply with the legal authorities.

## Recommendations

- 1) Government agencies should provide support for tools and equipment such as ATK testing kit services or make them available at a low cost and distribute them to stores in communities or the homes of community leaders in order to allow the people in communities to obtain them easily
- 2) Enhancement of community participation should be carried out in order to create safe areas in response to the spread of the virus and must rely on the foundation of development in conjunction with frequent training to build up knowledge and understanding related with the COVID-19 virus. In the model of integration with various work sections in communities, using operational methods that are simple and not complicated nor difficult and are appropriately not beyond the capability of people in communities will allow them to understand the methods and be able to behave appropriately and be flexible in each community.
- 3) For the participation of communities in order to create safe areas in response to the spread of the COVID-19 virus, primary healthcare work is considered to be an important part in which volunteers and COVID surveillance teams must determine activities for the development of the quality of life of infected persons and risk groups by development of four aspects, namely physical development, mental development, social relations, and the environment in communities.

## References

- Department of Disease Control. **Infectious disease the novel coronavirus** 2019. Retrieved on 25 June 2022 from: <https://ddc.moph.go.th/viralpneumonia/situation.php>
- Faculty members, Sasin Graduate Institute of Business Administration of Chulalongkorn University. (2020). Lessons from female leaders in Crisis: How should leaders cope with the COVID-19 crisis?. Retrieved on 25 June 2022 from: <https://sasin.edu/content/insights/lessons-from-women-leaders-how-to-deal-with-the-covid-19-crisis>
- Gupta, S. et al. (2020). Social isolation during Covid-19: Boon or bane to diabetes management. *Diabetes & Metabolic Syndrome: Clinical Research & Reviews*. Volume 14, Issue 4, July–Aug 2020, p. 567.
- Kwanrieng, P. et al. (2021). The role of women regular village public health volunteers in the enhancement of community participation for the prevention and control of the epidemic of the novel coronavirus 2019 in Chiang Mai province. **Research report**. Bangkok: King Prajadhipok's Institute.
- San, S., Bastug, M. F., & Basli, H. (2020). Crisis Management in Authoritarian Regimes: A Comparative Study of COVID-19 Responses in Turkey and Iran. *Global Public Health*, 16(4): 485-501. <http://dx.doi.org/10.1080/17441692.2020.1867880>
- Srisa-ard, B. (2002). **Primary research**. 7<sup>th</sup> edition. Bangkok: Suwiriyan.
- Taengwong, S. et al. (2020). The role of nurses in the application of nursing innovations in order to increase body temperature for patients after receiving anesthesia. **Journal of Nursing Science Christian University of Thailand**. Year 7, Issue 2 July-December 2020, p. 75-81.

- Watsawan, G. (2014). Participation of the population and operations preventing and control disease dengue fever of public health Phayao provincein Mae Ka subbdistrict, Phayao province. State self-study, Master of Administration (Department of Public Policy) Phayao University.
- Wongpathomtip, K. (2017). Participation of regular village public health volunteers in the prevention of and control of the infectious Sika virus disease in Don Tum district, Nakhon Pathom province. 7<sup>th</sup> Office of Disease Control and Prevention, Khon Kaen. 24(2): p. 59-67.
- Zyoud, S.H. & Al-Jabi, S.W. (2020). Mapping the situation of research on coronavirus disease-19 (COVID-19): A preliminary bibliometric analysis during the early stage of the outbreak. Zyoud and Al-Jabi BMC Infectious Diseases, p. 3.