

**THE KEY SUCCESS FACTORS AND KEY OBSTACLES OF ADMINISTRATION
OF THE PREVENTION AND CONTROL OF COVID-19 IN THAILAND**

**Surachart Na Nongkhai, Lampang Intertech College, Thailand
Korawik Pornnimit, Lampang Intertech College, Thailand
Anongwan Upradit, Lampang Intertech College Thailand**

ABSTRACT

Health workforces in both urban and rural areas in Thailand formed a professional public health association (CPHA) in 2005 and pushed the government to enact the Community - Public Health Professional Act (CPH Act) until success in 2013. The purpose of CPH council is to regulate its member practice with professional standard and professional ethics. By law, the president of the CPHA is a member of the professional council by position and CPHA have to support the activities of CPH council. The objective of this study is to describe the opinion of the members of the CPHA executive board about the key success factors and t obstacles of administration of the COVID – 19 during the lockdown period in Thailand. Delphi technique is a process of arriving at group consensus by providing experts with rounds of questionnaires, as well as the group response before each subsequent round. The group of experts are 24 members of the CPHA executive board. By collecting data between March - July 2020. There were unmatched and different opinions in the first round, but when presented with the same information. In the second round, more than 75% agreed that the factors that were most important to the administration of COVID – 19 prevention and control were 100% or consensus are leadership of health workforces, accurate knowledge and information of workers in COVID prevention and control, and unity level of work together as a team. The top three obstacles were 83.33%, a centrally defined committee structure, equal to the normality regulations that were not appropriate with the COVID – 19 situations and 79.17 sufficiency of supporting essential materials. The results of this study are consistent with the WHO Framework's Six Building Blocks.

Keywords: Administration of the prevention and control, COVID – 19

Introduction

Coronavirus disease (COVID-19) is an infectious disease caused by the most recently discovered coronavirus. This new virus and disease were unknown before the outbreak began in Wuhan, China, in December 2019. COVID-19 is now a pandemic affecting many countries globally. Since December 31, 2019, and as of August 24, 2020; 23,441,581 cases of COVID-19 (in accordance with the applied case definitions and testing strategies in the affected countries) have been reported, including 809, 422 deaths. To deal with this problem effectively, causes of failure and factors of success to support prevention and control are required. In the case of COVID-19, at least three aspects must be analyzed: administration, management and epidemiology.

Thailand is ranked number one in the world (as of July 29, 2020) with an overall score of 82.27 and is ranked in the fifth category. It is the most advanced virus mitigation country in the world. The score was 100%, with the 70% score derived from four indicators (high score means better recovery), namely 1) Number of active cases per population 2) Number of people who were cured. And then per infected person 3) number of tests per number of infected people and 4) number of tests per population.

This success is achieved through a collaborative effort from both the public and private sectors, which the Public Health Professions Association Or sometimes known as Community-Public Health Professional Association (CPHA) assesses that this success factor plays a key role in the effective administration to support prevention and control of management and empowerment of the Village Health Volunteer (VHV) participate to prevent and control of COVID – 19, especially during lockdown between March and July 2020 brought up to research questions. The CPHA also foresees a future scenario that a second outbreak will be highly severe. Therefore, keeping the success factor remains and fixing anything that hinders the management of the health system to be eliminated or reduced is very helpful.

The objective of this study is to describe the opinion of the members of the CPHA executive board about the key success factors and the key obstacles of administration of the COVID – 19 during the period in which Thailand announced a lock down due to the coronavirus outbreak.

Materials and Methods

This study applies Delphi technique for collecting data. The questionnaire was sent to 24 qualified experts and voluntarily answered questions. The ranking criteria summarize the answers to each round. In the first round, the 24 experts asked for identifying no more than six key success factors and six key obstacles to administrate COVID prevention and control. Submitted expert responses were scored according to the specified criteria, ranking number one gets six points, and the score is reduced until the ranking number six gets one point, and the lower one will be eliminated. The next round presents the ranking results for consideration if 17 or more people agree or 75% are considered finalized.

The questions used for data collection are as follows:

- (1) During lockdown March - July, you see that the success factors in the administration of prevention, what are the top 6 most important COVID controls in descending order?
- (2) What are the recommendations for treating or developing such success factors? If these factors are not maintained or developed in the future, what are the effects?
- (3) During lockdown March - July, you see the obstacles in the management of the defense. What are the top 6 most important COVID controls in descending order?

- (4) What are the suggestions for eliminating the obstacles? If the future obstacles are not taken, what will be the consequences?

Expert qualifications in this study are:

- (1) Work-related to health services in the community for at least ten years.
- (2) Used to be a director of HPH or used to be a CPHA Executive committee.
- (3) Voluntarily join to provide information

Table 1. Demographic Characteristics of Experts

Regions (Experts)	CPHA Executive Committee		Gender		Education	
	Current	Former	Male	Female	Bachelor's Degree	Over Bachelor
North (4)	4	-	2	2	2	2
Central (4)	3	1	3	1	1	3
East (2)	1	1	2	-	1	1
Northeast (11)	9	2	9	2	9	2
West (1)	-	1	1	-	1	-
South (2)	2	-	2	-	1	1
Total (24)	19	5	19	5	15	9

\bar{x} of health services experiences of experts = 19 years, \bar{x} year of experts = 42.

A total of 24 persons who have completed all the required qualifications are working or having performed scattered work. The Northeast is the region with the largest area of the country. Panel at most 11 people, other areas consist of North 4 people, Central 4 people, East 2 people, 1 in the West and 2 in the South, 19 of the current CPHA committee and 5 of the former CPHA committee. 19 male, 5 female, average age 42 years, Bachelor's degree 15 people, 9 people over bachelor degree, Average working experience in health organization 19 years.

Administration of the prevention and control of COVID – 19 in Thailand

The World Health Organization is an organization responsible for the administration and management of the health systems of countries member, guideline and policy of efficiency and effective health services must chain down to different countries and the agency facing the issues of prevention and control of COVID directly in the Thai community is Health Promotion Hospital (HPH). It is needed because there are only five people in HPH on average, which is not enough to prevent and control COVID – 19. Therefore, the key success factor to the value chain is the number and ability to perform the task of village health volunteers (VHV).

Six Building Blocks

WHO plays an essential role in the global governance of health and disease; due to its core global functions of establishing, monitoring and enforcing international norms and standards, and coordinating multiple actors toward common goals. In analyzing the factors of systematic success, the WHO proposes a framework to pay attention to Six fundamental factors health systems in terms of six core components or “building blocks”: (i) service delivery, (ii) health workforce, (iii) health information systems, (iv) access to essential medicines, (v) financing, and (vi) leadership/governance. Common goals or values of WHO six building blocks framework are access coverage, quality and safety of services.

Five Forces Framework and Value Chain

There are many strategic management frameworks, but one of the most recognized strategic management frameworks used in the strategic analysis is Peter F. Drucker's Five Forces framework that may describe the situation of management. The first force is the emergence of COVID and affects health. The second force is the supporter of resources and essentials for disease prevention and control such as the WHO and governments in each country.

The third force is an organization that faces COVID, such as community hospitals, HHPs, and families, and is divided into two levels of policy-setting and resource support, known as supportive activities, or administration, with primary activities. If the three Forces are fully connected to their functional values, they can deliver COVID prevention and control to communities. It is considered that the community is the customer or the fourth Force, but if unable to connect value to the customer Strategies must be adjusted by seeking success factors and / or obstacles in order to determine the strategy at the right point. Therefore, the cause analysis must cover all dimensions or value chain.

Administration of the prevention and control of COVID – 19

Comprehensive data analysis is required to analyze both Administration or Supportive Activities and as a Management or Services, which is considered the Primary Activities at the same time this is the subject of epidemiology. Therefore, it needs to focus on the principles of epidemiology as well.

In general, the cause of administrative problems often comes from two important matters: The abstract formulation of health organization policies is so abstract that it cannot be measured against the inadequate support of operational resources. The cause of management problems often comes from a lack of planning. Implementation of the plan, monitoring and control of operations and the use of results to be modified not to be repeated (Plan, Do, Check, Act).

In epidemiology, it is necessary to analyze the causes covering both an associated Host, Agent, and Environment cannot be broken either.

Host refers to the human who can get the disease. Agent referred to an infectious microorganism or pathogen: a virus, bacterium, parasite, or other microbe. Generally, the agent must be present for disease to occur; however, presence of that agent alone is not always sufficient to cause disease. Environment refers to extrinsic factors that affect the agent and the opportunity for exposure.

Community-Public Health Professional Organizations and Health Promotion Hospital

Health practitioners in Thailand who are the closest to the people in the community to promote prevention and control of disease are public health practitioners, which before 2013 there was no law to certify the professionalism of individuals. These individuals, scattered across the country, therefore began to unofficially gather to help each other in academic and welfare. It was established as an official CPHA in 2005 and has 24,788 members as of the date of registration. It took more than ten years. Until success in the year 2013 The purpose of CPH council is to regulate its member practice with professional standard and professional ethics. By law, the president of the CPHA is a member of the professional council by position and CPHA have to support the activities of CPH council (CPHC).

Health Promotion Hospital (HPH)

HPH is a district hospital under the Ministry of Public Health or local government organization has been raised from the health center or community health center according to the Thai government policy in 2009.

At present there are 9,806 HPHs, with an average of 5 working personnel each. In the COVID situation. The government has required representatives from all sectors to join the board for the administration, prevention and control of COVID, with all provinces and areas designated as the chairman of the board of government from the interior ministry, and secretaries are often represented from the Ministry of Public Health. The structure of this committee is centrally determined and not different in each area.

Therefore, when analyzing a health system, all components must be analyzed by using the WHO's six building blocks framework as a guideline and must not be partially considered. The connection of each element must be considered as the "Value Chain", where "Value" is the COVID-19 prevention and control management covering all groups of people with quality and safety.

Results

The results showed that less than six key success factors and obstacles were identified. There were unmatched and different opinions in the first round, but when presented with the same information. In the second round, more than 75% agreed that the factors that were most important to the administration of COVID – 19 prevention and control were 100% or consensus are leadership of health workforces, accurate knowledge and information of workers in COVID prevention and control, and unity level of work together as a team. The top three obstacles were 83.33%, a centrally defined committee structure, equal to the normality regulations that were not appropriate with the COVID – 19 situations and 79.17 sufficiency of supporting essential materials.

Table 2. The Key Success Factors (KFS) and Key obstacles of administration of the prevention and control of COVID – 19 in Thailand

KFS of COVID-19 Administration identify by Experts	Ranking by score Round 1 (%)	Ranking by score Round 2 (%)	Key Obstacles COVID-19 Administration	Ranking by Score Round 1 (%)	Ranking by Score Round 2 (%)
Leadership	134 (93.05)	144 (100.00)	Flexible Structure	115 (79.86)	119 (83.33)
Teamwork	128 (88.89)	144 (100.00)	Inappropriate Regulation	100 (69.44)	119(83.33)
Accurate Knowledge and Information	104 (72.22)	144 (100.00)	Insufficiency Supportive	96 (66.67)	114(79.14)
Supportive	102 (70.83)	103 (71.53)	Unclear Policy	66 (45.83)	72 (50.00)
Rewards System	66 (45.83)	66 (45.83)	Ability to Manage Chaos Situation	32 (22.22)	32(22.22)

Others	1-12(0.88-8.33)	1-12(0.88-8.33)	Others	1-12(0.88-8.33)	1-12(0.88-8.33)
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*Note 1 = 6 point, 2 = 5 point, 3 = 4 point, 4 = 3 point, 5 = 2 point, 6 = 1 point, 144 point = 100%

Conclusion

The results of this study are consistent with the WHO Framework's Six Building Blocks; the key success factors were aligned with three factors of the WHO frameworks: leadership, health workforce and information. Leadership can support teamwork and reduce conflict. A health workforce needs to have sufficient knowledge and information on their work. The morale of the health workforce is something that must be given priority. The centralized administrative structure must focus on policy direction or support only, it must not go into details at technique and area levels. It also supports the resources for working appropriately, flexibly, instead of strictly adhering to the rules that apply in normal conditions. Maintaining the key success factors and removing the key obstacles of administration of the prevention and control of COVID – 19 is the building of the Value Chain.

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