

Lessons from Thailand's Response to the COVID-19 Pandemic

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Introduction

On 31 December 2019, Wuhan Municipal Health Commission, China, reported a cluster of 27 cases of pneumonia of unknown etiology in Wuhan, Hubei Province¹. Most of the patients were associated with exposures in one seafood market in Wuhan. The Chinese authorities also reported that there was no clear evidence of human to human transmission^{1,2}. The Chinese authorities released a coronavirus genome from an outbreak on 10 January 2020³. On 13 January 2020, the Ministry of Public Health (MoPH), Thailand, reported the first imported case of laboratory-confirmed novel coronavirus outside China⁴. Since then, the disease has spread across the world, with more than 9 million confirmed cases in 215 countries and territories, as of 21 June 2020⁵.

As of 21 June 2020, Thailand reported 3,148 confirmed cases of COVID-19 with 58 deaths. As of this same time, Thailand had not had a local transmission case for 27 days^{6,7}. This article describes Thailand's response to the COVID-19 pandemic and lessons that we have learned from our COVID-19 response.

What do we know so far about the disease?

COVID-19 is the disease caused by the new coronavirus, Severe Acute Respiratory Syndrome Coronavirus 2, or SARS-CoV-2, that was first detected in China in December 2019. COVID-19 can be transmitted from a SARS-CoV-2 infected person to others who are in close contact through respiratory droplets, by direct contact with infected people,

THJPH 2020; 50(3): 268-277

Received: June 24, 2020; Revised 1: September 16, 2020; Revised 2: October 8, 2020 Accepted: October 9, 2020

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or by contact with contaminated objects or surfaces and then touching their own mouth, nose, or possibly their eyes. To date, direct contact is the most important transmission mode for COVID-19. COVID-19 has an estimated median incubation period of 4-5 days, with a range from 0-14 days. The severity of the illness ranges from asymptomatic infection to severe illness and death. Common signs and symptoms include fever, cough, fatigue, anorexia, shortness of breath, sputum production, myalgias and loss of taste or smell. Older age, smoking and underlying noncommunicable diseases (NCDs), such as diabetes, hypertension, cardiac disease, chronic lung disease and cancer, have been reported as risk factors for severe disease and death⁸⁻¹⁰.

COVID-19 situation in Thailand and Thailand's response to the pandemic

Following the news of the outbreak from Wuhan and the information about the number of travellers from Wuhan to Thailand, Thailand's Department of Disease Control activated its emergency operations centre and its surveillance system on 3 January 2020.

The first known case of COVID-19 arrived in the country on 8 January 2020 and was detected at the airport. The patient was admitted to Bamrasnaradura Institute of Infectious Disease and was later confirmed

to be positive for COVID-19 on 13 January 2020. This patient was the first confirmed case of COVID-19 outside China⁴.

Thailand's strong surveillance system for incoming travellers was able to detect a number of cases throughout January and February⁵. After the Chinese authorities reported that the disease could transmit from human to human¹¹, Thailand started surveillance among the Thai population who had close contact with Chinese travellers, which enabled Thailand to detect the first locally transmitted case on 31 January¹².

In February, while the number of cases remained low, the Department of Disease Control started to prepare for the outbreak. The department held two important training sessions: one for the communicable disease control unit or rapid response team and the other for hospital staff. The department also started to stockpile essential equipment and medicine.

The number of cases increased in March as a result of several case clustering events in several night clubs, Thai boxing matches in Bangkok and the return of Muslim pilgrims from Malaysia¹³. In response, the Prime Minister established the Centre for COVID-19 Situation Administration (CCSA) on 12 March 2020¹⁴. On 17 March, the government closed venues where many people congregate, such as sporting events, entertainment places,

schools and asked offices to consider allowing their staff to work from home¹⁵. On 22 March, Thailand reported the highest new cases at 188¹⁶. The Prime Minister declared a state of emergency on 25 March and effective from 26 March 2020¹⁷. The government issued a curfew on 3 April¹⁸ and banned all commercial flights into the country on 4 April¹⁹. The number of new confirmed cases gradually dropped throughout April and May⁵. The number of new infections returned to single digits on 27 April²⁰. The government started to reopen businesses gradually on 3 May²¹. The last confirmed locally transmission was reported on 25 May²². Figure 1 shows the timeline of COVID-19 cases and public health responses in Thailand, from January to June 2020.

Thailand is a democratic upper-middle income country. Thailand's technology and public health infrastructure may not be as good as several developed countries. So far, Thailand was one of the countries that saw a rapid increase in the number of new infected cases and was able to control it. Here are a few strengths that Thailand has and a few things that Thailand did right.

Strong health security system established before epidemic

Thailand established a village health volunteer program in 1977 and a field

epidemiology training program in 1980. To date, Thailand has more than 1 million village health volunteers, 200 well-trained field epidemiologists and 900 communicable disease control units that can investigate outbreaks and perform contact tracing^{23,24}.

Thailand started to implement a health security program and public health emergency management in 2007 and re-engineered the program in 2015^{25,26}. Thailand has actively strengthened the country's International Health Regulation 2005 (IHR 2005) capacities^{27,28} and joined the Global Health Security Agenda (GHSA) in 2014. It is currently one of the steering member countries and will be the chair of the steering member country for GHSA in 2021.

The experiences in dealing with epidemics and pandemics ranging from SARS, avian influenza H5N1, pandemic influenza H1N1 in 2009, MERS and Zika virus disease have helped the country's public health system to better prepare for the new threat. The preparation for Ebola virus disease and avian influenza H7N9 also helped Thailand to strengthen and revise the country's preparation strategy in 2017.

Thailand's health security system may not be counted as one of the best, but the system has a deep level of capacity to deal with epidemics and pandemics^{29,30}.

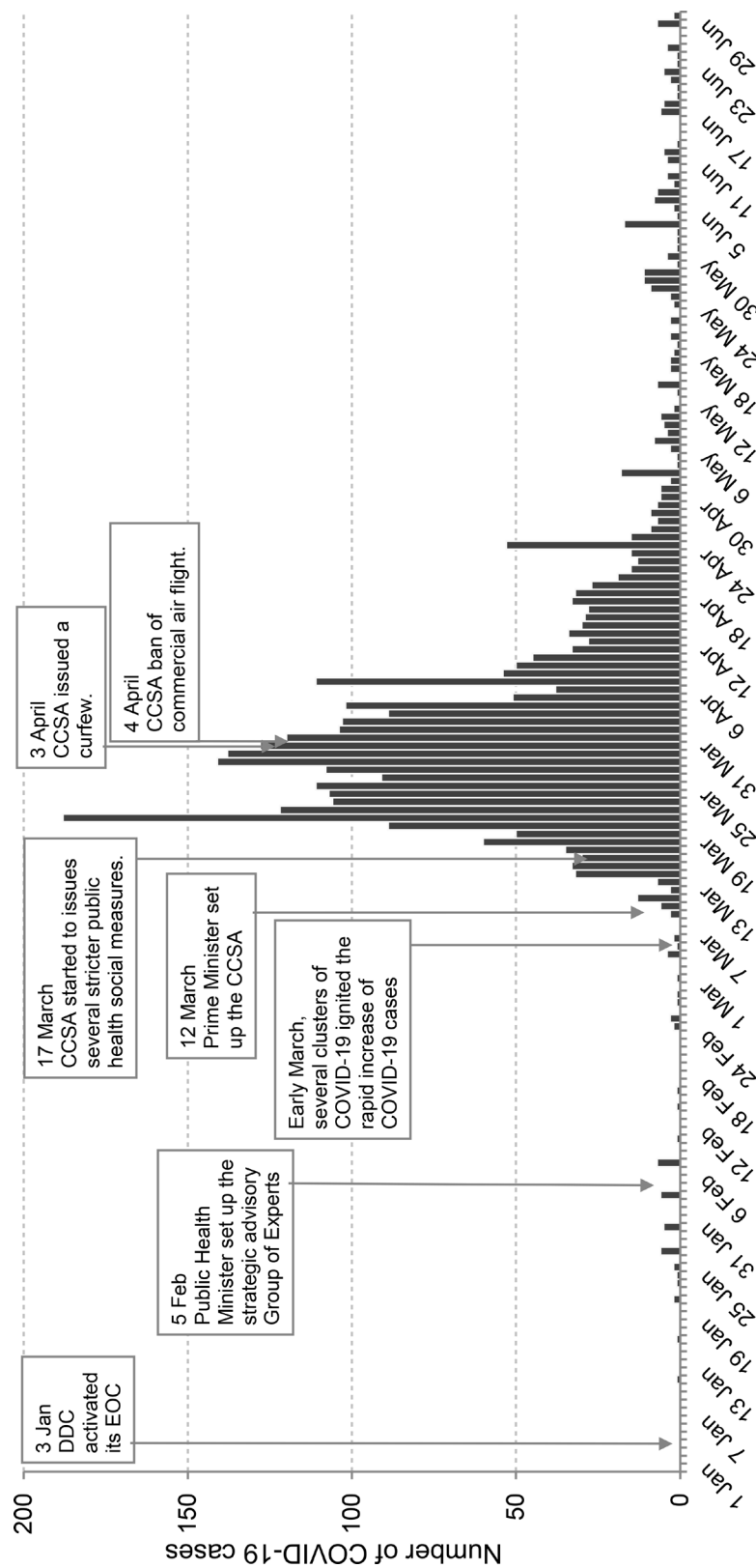


Figure 1. Timeline of COVID-19 cases and public health responses in Thailand, January – June 2020. DDC, Department of Disease Control; EOC, Emergency Operations Centre; CCSA, Centre for COVID-19 Situation Administration.

During the COVID-19 pandemic, Thailand was able to effectively perform important public health measures: prevent new infections among vulnerable populations, detect cases early, isolate cases, treat cases, investigate contacts, identify and trace contacts of cases^{28,29}. In other words, the strong health security system built up during the last 3 decades has stood the test of the first phase of the COVID-19 epidemic and has brought it under excellent control.

Timeliness

Thailand did the right things quickly.

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The Thailand Department of Disease Control and the government started to plan, prepare and implement prevention and control measures early and stayed steps ahead of the outbreak. The activities ranged from activation of the emergency operations centre, surveillance for travellers and people who had close contact with travellers, training the communicable disease control unit and hospital staff, stock-piling essential equipment and medicine, implementing universal precaution measures, setting up a structure to coordinate cross-ministry activities, and implementing soft lockdown measures. Thailand is a favourite tourist destination for citizens of Wuhan and Hubei. A slow response would have resulted in an epidemic of epic proportions.

Empowerment of public health experts

Health experts were empowered by the public health minister and the prime minister, to lead the response. A strategic group of experts were set up on 5 February to give an in-depth analysis of the situation and strategic advice to the minister of public health and to the prime minister³¹. So far, the strategic group of experts has provided the strategic directions, strategic framework for prevention and control of the situation, as well as several practical recommendations, to the Ministry of Public Health and the CCSA.

Decisive leadership

The prime minister quickly put into place the right legal and administrative structure, the CCSA¹⁴. This entity enabled easy and fast cross-departmental collaboration for all state agencies to move in the same direction and made it easier for difficult and unpopular decisions to be taken and implemented early in the crisis.

Comprehensive multi-sectoral approach

The government enrolled multiple sectors in the fight, including the private sector and civil society. Their ideas were heard and shared. Both the private sector and civil society were instrumental in implementing

the soft lockdown and the prevention measures during the soft lockdown, and designing the recommendations for the reopening of business in May.

Thai unite or Bangrajan spirit

Every time Thai people have a crisis, they unite. Some may call it 'Bangrajan spirit'. A culture of high willingness to help others and a culture of willingness to change habits, to suit new situations, is an integral part of Thai culture. These qualities have led to high compliance with safety guidance: universal wearing of masks and universal availability and use of hand-gels. The rate of wearing masks increased to nearly 100%³². This strong willingness to help in a time of crisis helped us win this first battle against COVID-19.

Conclusion

Diseases do not, indeed, know borders. Since its emergence in Asia late last year, COVID-19 has spread rapidly across the globe. Countries are trying their best to slow the spread of the virus with whatever resources the countries have. Thailand's response to COVID-19 was unique, because Thailand was able to use its existing infrastructure and public health measures to its fullest potential.

Multiple factors were very important for this initial successful fight to control COVID-19, which included a strong health security system, the timeliness of the response, the empowerment of public health experts by country leaders, decisive leadership, a comprehensive and multi-sectoral approach and the underlying Thai spirit to come together as one community in a time of need.

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