



Countermeasures against COVID-19 in Thailand by Thai Government, MOPH, the Medical Association of Thailand, Thai Medical Council and Other Thai Health Organizations reported on September 21, 2020



In conclusion, from January to September 2020, the activities performed by the Medical Association of Thailand that contribute to the COVID-19 control in Thailand can be summarized as following:



Provides knowledge on disease, treatment and prevention of COVID-19 to doctors, medical staff and Thai people through many media such as TV, radio, information sheets on many websites including the Thai Medical Council and the Medical Association of Thailand.

## ข้อมูลการแพร่ระบาด “โควิด-19”



## นายกแพทยสมาคมยื่น! โควิด-19ในไทยยังเอาอยู่



Provides knowledge on disease, treatment and prevention of COVID-19 to doctors, medical staff and Thai people through many media such as TV, radio, information sheets on many websites including the Thai Medical Council and the Medical Association of Thailand.





Give moral support and educate physicians who work frontline how to take care the patients infected with or suspected of having SARS-CoV-2 infection as well as how to protect oneself from COVID-19 infection.



Act as a coordinating center to receive donation, anti-infectious medical devices especially masks and alcohol and distribute them to doctors, nurses, medical personnel and health volunteers nationwide as well as help create innovation device to protect doctors and nurses from getting infected while performing any procedures on the patients related to the respiratory tract.





Provide comments and recommendations to the Thai government administrators including the prime minister in a special meeting that "Health must come before the economy in COVID-19" by proposing measures in order to prevent the outbreak and prepare economic remedies for the grassroots people. In short, the keyword we proposed was **“Top-down and bottom-up of enforcement of community quarantine and social distancing”** at the early stage of the local spreading.



Create a life insurance program for doctors and nurses who are frontline white-shirt warriors in the care of patients with COVID-19. These also includes nurse assistants, radiologists and medical technicians nationwide. The Medical Association of Thailand has made two programs of life insurance with the Thai Life Insurance Public Co. Ltd., and if any individual passes away due to the coronavirus, the nominee will get the sum assured as the death benefit in the amount of one to five million baht.





Share and exchange bilateral experiences of COVID-19 treatment and prevention with medical professionals from China and some MASEAN countries.







Collaborate and initiate necessary clinical research activities through a national research organization (Health System Research Institute or HSRI), to provide timely preliminary answer to control COVID-19 including collecting the daily local epidemiological data of COVID-19.





Participate in a survey and give opinions and advice on preventive measures of COVID-19 to the administrator team of the largest chain of Department Store in Thailand “Central Department Store” as an sample for other stores when the stores will be re-opened for customers after the government has given permission to re-open the nationwide department stores.

# **Submission of Report about the Countermeasures against COVID-19 in Thailand by the Government, MOPH, the Medical Association of Thailand, Thai Medical Council and Other Thai Health Organizations**

Reported by the Medical Association of Thailand (MAT)

Since the response plan has been frequently set up or adjusted according to the daily change of the spreading status of COVID-19, the MAT will report the situations of COVID-19 by month and the response plans with all activities in detail that have been set up and executed in each month according to the outbreak status.

In addition, the current president of the MAT is also an infectious disease specialist, hence the MAT has been involved in several activities including joining the official meetings in order to help the Thai Government, the prime minister of Thailand and the Ministry of Public Health (MOPH) cope with the situation of COVID-19 in Thailand and to stimulate clinical research needed to solve the urgent clinical problems.

## **Initial Timeline of COVID-19 by WHO from December to 13<sup>th</sup> January 2020**

### **31 Dec 2019**

- Wuhan Municipal Health Commission, China, reported a cluster of cases of pneumonia in Wuhan, Hubei Province. A novel coronavirus was eventually identified.

### **1 January 2020**

- WHO had set up the IMST (Incident Management Support Team) across the three levels of the organization: headquarters, regional headquarters and country level, putting the organization on an emergency footing for dealing with the outbreak.

### **4 January 2020**

- WHO reported on social media that there was a cluster of pneumonia cases – with no deaths – in Wuhan, Hubei province.

### **12 January 2020**

- China publicly shared the genetic sequence of COVID-19.

### **13 January 2020**

- Officials confirmed a case of [COVID-19 in Thailand, the first recorded case outside of China](#). (In fact, local Thai news already reported this case on January 8, 2020)



## **The Situation in January 2020 (just start!! Keep a vigilant eye at the airport and country borders)**

Since late December, the news from China that many cases with unknown cause of severe pneumonia in Wuhan city, caused a lot of concern to many officers in Department of Disease control (DDC), Thai MOPH since it was known that many Chinese tourists coming to Thailand, departed from Wuhan city in China where it become the center of the disease outbreak. The disease was referred to severe viral pneumonia but the type and the cause of it were unknown by then.

## **Strategic preparedness and response plan from the Government, MOPH, the Thai Medical Council and the Thai Medical Association of Thailand**

- The DDC set up a team to check up the febrile Chinese tourists at the entrance to Suvarnabhumi International Airport.
- The Bamrasnaradura Infectious Diseases Institute of MOPH was activated to respond to a possible admission of the first case of COVID-19.

**By January 8, 2020** a tourist from China just landed in Bangkok with a temperature over 37.5° C, a possible sign of a deadly new disease. This was the first case of suspected COVID-19 landed and detected at Suvarnabhumi International Airport and later admitted at Bamrasnaradura Infectious Diseases Institute on the same day. This case was later confirmed as Thailand's first COVID-19 case on January 13, 2020. At first, all nurses designated to go to the airport to pick up this case, had put on Personal Protection Equipment, consisting of an overall, N95 mask, goggles, a face shield, a hat, a pair of plastic socks, boots and gloves. Everyone helped each other check that they were all properly in place before the team went off in an ambulance heading to take care of this case. This was the first time, the medical team from Bamrasnaradura Infectious Diseases Institute started to fight against the infection, later named COVID-19 by WHO.

By the late January 2020, the news on COVID-19 in China took up the first front page of every newspaper in Thailand.

Since the disease was frightening to the Thai public as it was being spread quickly, the first thing that came up to mind from all people and medical team was to have all essential medical equipment ready to protect them from contracting the disease. The MOPH and government urgently needed to provide and store them for the medical personnel to cover an approximate use for at least one-three months and even to provide more negative pressure rooms to isolate and keep the patients inside. All protective medical devices were listed such as

- Personal protection equipment
- N95 masks
- Surgical masks

- Alcohol hand rub and gel
- Face shield

And they were being ordered to keep in stock in the hospitals. Thai people were also being alert to begin protect themselves from the disease by wearing facial masks and kept on alert for the information of the epidemic.

The Medical Association of Thailand (MAT) and Thai Medical Council (TMC) started to educate people about the disease, disease prevention with strict respiratory hygiene and tried to calm down the scary mood of the public. In addition, the MAT and TMC advised medical doctors how to treat the case if they found one.

**The Situation in February 2020** (Public frightening mood escalated, the first batch of Thai people returned from Wuhan, China)

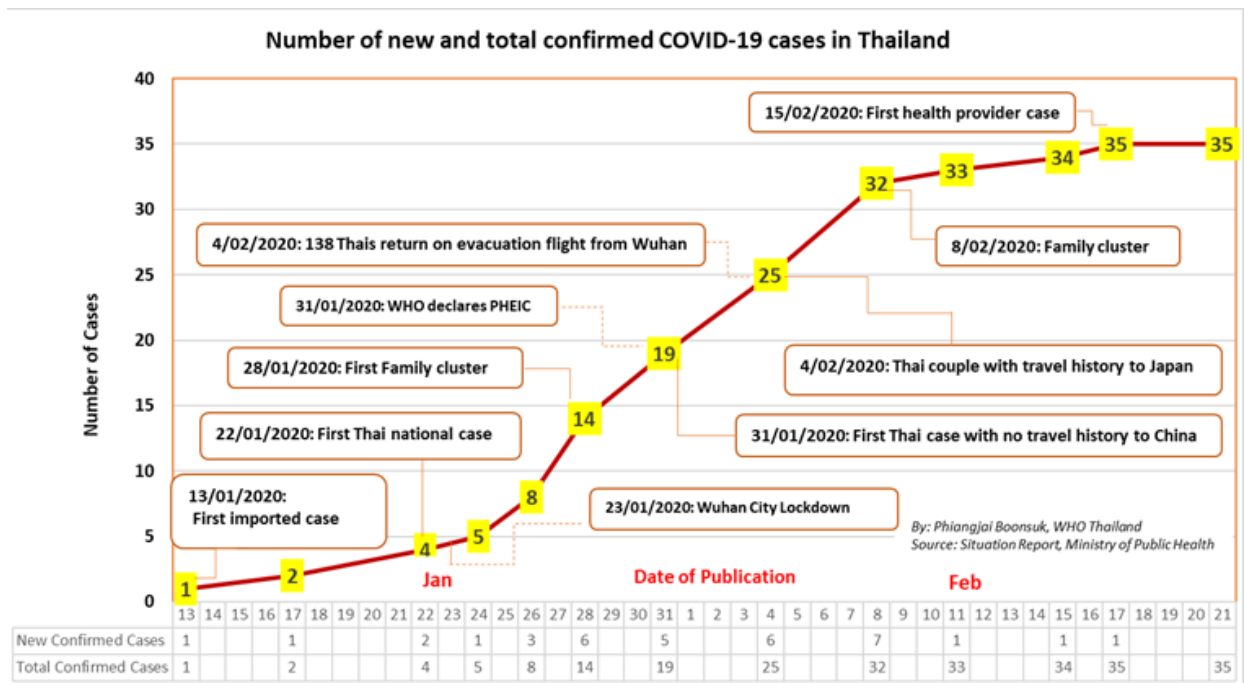
The situation was being viewed by Thai community as an eminent crisis. In early February, it was found that other four Chinese airline passengers from China's Hubei province, and one Thai citizen – a taxi driver – have now been confirmed as infected with the novel coronavirus announced in a briefing in Bangkok. This announcement was made in the first week of February and brought the current toll of confirmed coronavirus cases in the Kingdom to 19 cases.

Of note, the taxi driver was the first instance of a local human-to-human viral transmission. The driver had never travelled to China, let alone since mid-December when the Wuhan coronavirus was first identified. Since his diagnosis, Thai health officials had traced 13 people who had been in close contact with the taxi driver, but none had tested positive for the virus at this stage.

On 4 February 2020, at 20:30 hrs., the special flight operated by Thai Air Asia to bring back Thais in Wuhan and Hubei, China, safely landed at U-Tapao Rayong-Pattaya International Airport with 138 Thais from Wuhan and Hubei. Also on board were seven medical personnel from the Ministry of Public Health, two officials from the Ministry of Foreign Affairs, and three officials from the Royal Thai Embassy in Beijing, earlier dispatched to Wuhan to facilitate the return of the Thais in Wuhan and Hubei. All passengers and crew travelling with this flight passed through screening procedure for signs and symptoms associated with the 2019 novel coronavirus, as required by the Ministry of Public Health. The return of Thai nationals or workers in other countries was also considered to be done. They were quarantined for 14 days at a seaside resort in Sattahip naval base area.

The total number of laboratory confirmed COVID-19 cases reported at the end of February **stood at 42 (including 10 locally transmitted cases)**, of which 28 had recovered and 14 remained in hospital. Two patients were still severely unwell. The cumulative number of PUIs stood at 2,798 PUIs.





## Strategic preparedness and response plan from the Government, MOPH, the Thai Medical Council and Thai Medical Association of Thailand

The DDC, MOPH kept monitoring and detected more cases from international travelers at the airports and country borders who came from any countries reported to have COVID-19 endemics. Those who had fever, were isolated and treated at Bamrasnaradura Infectious Diseases Institute or Rajavithi Hospital. The Department of Medical Science, MOPH collaborated with medical schools to develop the diagnostic test for SARS-CoV2 using the RT-PCR technique.

The MOPH had announced and designated COVID-19 as a **dangerous communicable disease** according to the provisions in Sections 5 and 6 of the Communicable Disease Act. It was published in the Royal Gazette and took effect on Sunday, 1<sup>st</sup> March 2020. This gave legal authority to communicable disease officers to test, treat and quarantine people infected with COVID-19 as well as high risk contacts if needed.

Since then, the Medical Association of Thailand as well as all health organizations and MOPH together continuously educated medical personnel and Thai people through social media and television about the disease and emphasized personal measurements which played the most important role in containing the outbreak and was responding to queries from media and the general public. People were asked to protect themselves and members of the family and friends among them, by strictly following practices such as wearing a cloth or surgical masks outside the house, frequent hand washing, avoiding touching one own face, coughing

or sneezing into sleeves, maintaining a distance of 2 meters from unknown people, and staying at home or work from home as much as possible. All the annual meeting organized by health academic colleges, society or association were requested to postpone for an unknown period to avoid mass gathering. The public was urged to do their parts to stop or even end the outbreak, and protected Thailand's healthcare workers and public health system from overwhelming workload due to the possible COVID-19 outbreak in the Kingdom.

**Of note at this time**, facial or surgical masks began to shift or move to black market and finding even a few hundred masks proved very difficult. People were told that the masks were all sold out and the price if there was any, was at least more than three-five folds from the ordinary price. The government has intervened the market and bought facial masks to be distributed to health personnel.

### **The Situation in March 2020** (the expected peak has finally come!!!)

At the beginning of March, the daily newly infected cases were reported to be below ten cases per day until the mid of March. Then up to the 28<sup>th</sup> of March 2020, 109 new cases of laboratory-confirmed COVID-19 had been announced, bringing the total number of cases to 1,245. Most newly reported cases were related to previously reported clusters but others had returned from abroad or had occupational exposure to large numbers of people (spa, hotel, boxing stadium, restaurant, shops). The news that many unauthorized workers in South Korea requested to return to Thailand in the early March and many of them got infected with COVID-19 even before returning to Thailand, caused a national intensely debate whether how to best deal with this group.

At this time, two new cases were health personnel. The total number of COVID-19 cases in healthcare workers was eleven by then, but several of these individuals may have been exposed in community settings.

- Of the 76 provinces in the country, 57 had now reported cases. The proportion of COVID-19 cases detected outside of Bangkok was increasing further; cases had now been reported in 3/4 of Thailand's provinces.

### **Swift and decisive Strategic preparedness and response plan from the Government, MOPH, the Thai Medical Council and Thai Medical Association of Thailand**

The COVID-19 spreading in Thailand was considered unavoidable and possibly escalating by the medical authorities. All health authority in Thailand agreed to postpone all the annual meeting to stop local COVID-19 spreading unless strong measures to contain the disease were urgently established.

**On March 3, 2020** The Prime Minister had issued 14 urgent measures to handle the Covid-19 situation.



1. State agencies must strictly enforce the Public Health Ministry's measures and guidelines on the outbreak and, if need be, could also issue their own internal measures.
2. State officials had to suspend or postpone overseas official trips in countries where the virus was spreading and countries being monitored by the Public Health Ministry. If they could not cancel the trips, they needed permission from their heads or related agencies to go on the trips.
3. State employees who had returned to Thailand from countries at risk or had transited these countries or suspected to have contracted the virus could work at home for 14 days to observe their condition; the work at home was not be regarded as taking a leave.
4. An information centre was set up at Government House to integrate information from all agencies and received complaints as well as provided the right information to the public regarding the virus.
5. The Commerce, Public Health, and Industry ministries jointly evaluated the demand for products needed for preventing the situation from escalating, such as gels and masks, and provided these to sufficiently cater to public needs.
6. The Commerce Ministry must prevent hoarding of such products both online and in shops/stores.
7. Transport agencies and local administrative bodies must strictly screen passengers at key areas such as airports, train stations and bus stations.
8. The Labor and Foreign ministries had to closely monitor and took care of Thais living in the countries hit by the virus.
9. The Interior and Defence ministries prepared locations for quarantine and observed the condition of people who had returned to Thailand or those who were suspected of having been infected.
10. In case the Public Health Ministry and related agencies had to procure medical equipment needed to handle the outbreak, they could coordinate with the Budget Bureau to ask for more money.
11. The committee preparing the prevention of and solutions for the coronavirus held a meeting on a regular basis and constantly updated the PM on the situation.
12. The Public Health Ministry must take care of medical personnel and staff and provided them with special welfare to boost their morale.
13. The Interior and Public Health ministries had to integrate their information on the situation.
14. State agencies seek the cooperation of private companies to avoid or postpone activities that saw a mass gathering of people, which might expose them to the risk of virus infection.

**On Monday morning of March 16, 2020**, The government had a dialogue with seven leading doctors in Thailand (two from the MAT) to discuss and find appropriate measures to fight the new coronavirus (Covid-19). Prime Minister sat with the top doctors to hear their suggestions on the right way to deal with this virus crisis. The doctors who attended the meeting were: Clinical Professor Emeritus Dr. Piyasakol Sakolsatayadorn, Clinical Professor Dr. Udom Kachintorn, Prof. Dr. Yong Poovorawan, Prof. Dr. Amorn Leelarasamee and Prof. Dr. Somsri Pausawasdi. These doctors had supported the 14 urgent actions and encouraged the government to issue new critical measures and implement strong decisions such as cancelling the Songkran holidays and closing entertainment venues, boxing stadium to stop Covid-19 from further spreading. [Top-down and bottom-up of enforcements of quarantine and social distancing were emphasized and asked every official units and public to comply with.](#) The prime minister was reassured to take “Health priority before the Economy” in the middle of the COVID-19 crisis.

On March 17, 2020, the Prime Minister announced the closure of schools, universities, department stores, retailing shops, sports venues, pubs and entertainment centres in the Bangkok metropolitan area, **the first mass social distancing strategy** implemented by Thailand to contain the possible spread of transmission. One week later, the prime minister declares a state of emergency firstly from March 26 to April 26, 2020, and set up a COVID-19 center for the resolution of the emergency situation to oversee the operation. Later on the government also issued an Emergency Decree on Public Administration in Emergency Situations which was used and expanded to the end of June 2020.

The MOPH had expanded the diagnostic facilities with the medical schools and private sectors to provide more tests available for PUI and newly febrile patients with URI symptoms. Together with the leading academicians, the MOPH had issued several clinical practice guidelines on how to deal with and diagnose the persons under investigation and quarantine, how to diagnose and treat patients with COVID-19 and to provide all medical equipment necessary to cope with the increasing demand of protective device among the provincial hospitals.

The Thai sub-national public health capacity was robust, including extensive networks of Rapid Response Teams and Village Health Volunteers. These networks worked relentlessly to identify suspected cases, ensured they were quickly isolated from others, treated them and traced and quarantined their close contacts. Rapidly separating infected persons from others minimized opportunities for spread of the virus and was effective in preventing disease in the population.

Even in the worst case scenario, the MAT provided an active life insurance policy for every Thai doctors and nurses, certain medical personnel in Thailand who were to die due to their frontline duties on caring patients with COVID-19, their

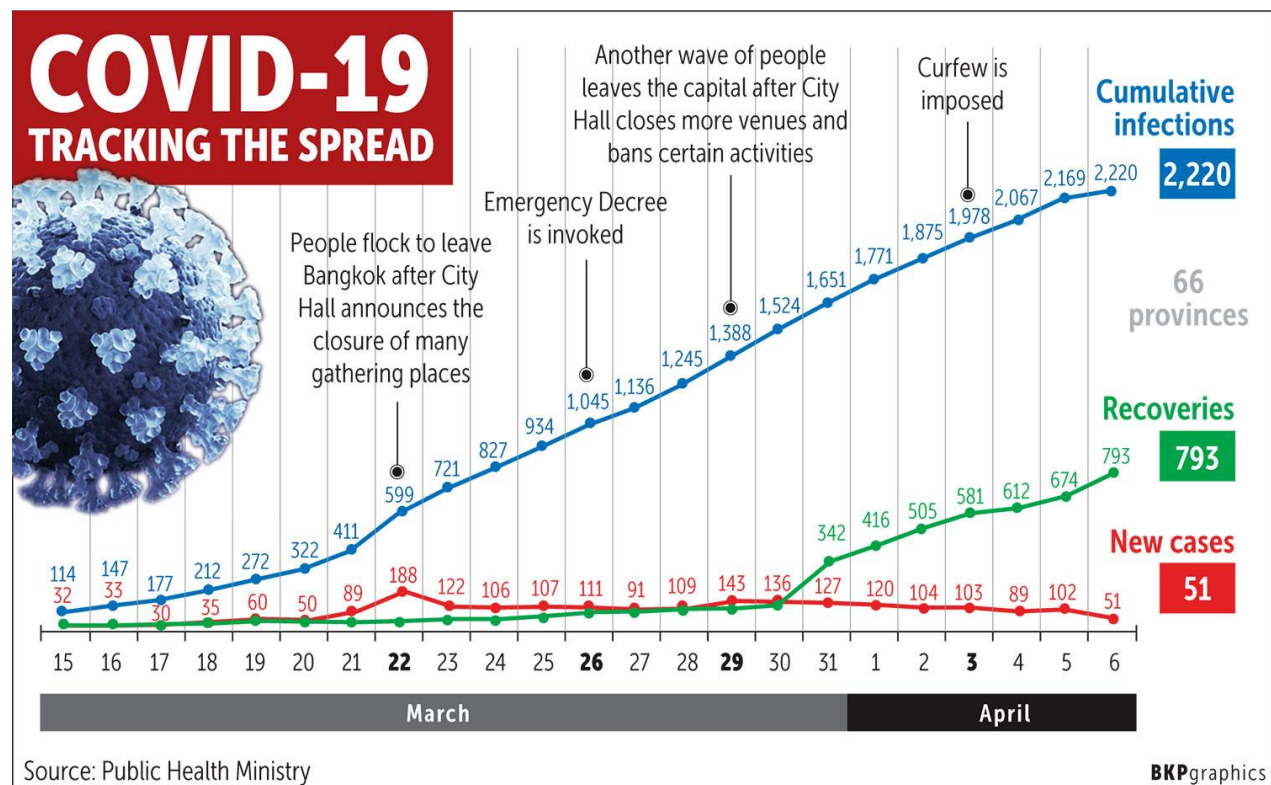


families would receive the death benefit of 1-5 million Baht. The covering insurance duration was from April to March 2021. There was also similar funding for Village Health Volunteers from the MOPH if they unfortunately died due to their duties on COVID-19 surveillance, contact tracing and case detection and reporting to the DDC, MOPH.

Public was emphasized frequently through social media, newspaper, television everyday on the necessary action everyone must take to contain the disease:

1. Everyone can play their part by staying at home when possible, maintaining 1-2 m distance from others if they must go out, washing hands frequently with soap and water or an alcohol-based sanitizer, avoiding touching the mouth and nose, and observing respiratory hygiene (coughing into flexed elbow or a tissue which is disposed of safely).
2. Anyone who has recently travelled to any province from Bangkok in the past 14 days, and who develops symptoms of COVID-19, should separate themselves from others, wear a mask and seek medical attention immediately.

The Prime Minister and Defense Minister, held video conference with the cabinet for the first time, endorsed measures to control and prevent the spread of COVID-19.



**The Situation in April-May 2020** (just follow the master plan of control measures established in March)

Newly infected cases seemed to escalate to more than 100 cases in the first two weeks of April according to official daily report. Field hospitals were being prepared to set up in many provinces if the country failed to contain the COVID-19 and the government had made sure that there were enough medical supplies, beds including ventilators.

However, the reported cases began to stabilize and decrease in the last two weeks of April and in May, though more RT-PCR tests were even more available to the public demand and performed among the high risk population in Government and private hospitals.

**Strategic preparedness and response plan from the Government, MOPH, the Thai Medical Council and Thai Medical Association of Thailand**

Since the decisive, bold and straightforward response plan were clearly established in the mid of March, the actions taken in April to June to the response went in line with the March master plan of response.

- The Ministry of Public Health had allocated 1.5 million surgical masks (approximately adequate for a one-month supply) for health facilities, including those not under the Ministry.
- The current stock of N95 masks held by the Ministry of Public Health might not be enough to meet current demand, and due to very high global demand, procurement was a challenge. Urgent research was being undertaken on the efficiency of UVC irradiation for N95 disinfection and reuse.
- The General Pharmaceutical Organization had procured 240,000 doses of Favipiravir from Japan (40,000 delivered on 30 March, 200,000 delivered in April) and 100,000 doses from China, delivered in April
- The Bangkok municipality had more than 1,000 beds available as well as a reserve of 1,000 beds in other locations (such as hotels). It also had a reserve of 300 ventilators identified through a network of hospitals. At the provincial level, there was a reserve of 10,000 beds and 1,000 ventilators.
- The declaration of the state of emergency still in place.
- Nightly curfew was implemented from 10:00 p.m. to 4:00 a.m.
- People in risk areas should not return to their home provinces at this time. If they have to travel, they are required to go through the screening process and may need 14-day quarantine.
- International flights will remain locked out until except for the special agreement until the end of June but domestic flights are allowed from June.
- Thailand remains under emergency decree until the end of June



- Thai government urges the public to comply with contact-tracing system “Thai Shana” digital platform available in Thai and English using one own mobile phone to “checked in” and “check out” at various business area or department stores.
- The Transport Ministry allowed all public transport, including buses, trains and planes to resume, to meet the people’s demand for travel, with the exception of some provinces that have not ended lockdown measures. The ministry’s deputy permanent secretary said the move was in line with the Centre for Covid-19 Situation Administration’s third phase of relaxation of Emergency Decree restrictions but public transport operators were required to enforce the ministry’s Covid-19 preventive measures, such as maintaining social distancing, wearing facemasks, providing sanitizing gels, and using the Thai Chana app to monitor public movement.
- Visitors to Thailand traveling from affected areas are being screened and provided information upon arrival by the Ministry of Public Health, including how to report any possible illness to the Department of Disease Control using the 1422 hotline.
- The Ministry has also introduced a self-reporting online tool, available in Thai, English and Chinese called “Thai Shana” digital platform.
- At least 47 provinces had a ban on the sale of alcohol to reduce the risk of social gatherings at home or in a community.
- From February until June 6, 2020, more than 400,000 samples had been tested with RT-PCR method, the majority through private hospitals. In total, more than 160 laboratories had been certified for COVID-19 testing. At present, approximately 20,000 samples can be tested in a day (10,000 in Bangkok, and 10,000 in the provinces).
- The Ministry of Public Health establishes telemedicine services and it is currently being piloted in 27 hospitals, mostly located in or nearby Bangkok to enhance social distancing to perform on-line consultation via a video call and home delivery of medicine at no additional costs, other than costs of delivery.
- Thailand is in the initial stages of vaccine development. The vaccination ‘Team Thailand’ includes the academic sector, government research institutes and private companies which developing various types of vaccine. The vaccine against COVID-19 are being tested in Thailand with collaboration from international company

- In the immediate future, entry to Thailand will be determined on the following basis until July 1, 2020:
  - Thai nationals will need to produce:
    - A Medical certificate that they are fit to travel
    - Certificate to enter to Thailand (issued by the Thai Embassy)
    - They must accept mandatory quarantine for 14 days
    - They may only enter Thailand on designated dates and points of entry.
  - Non-Thais
    - Are not permitted to enter Thailand except diplomats and those who have a work permit.
    - Details of these regulations have been sent to all diplomatic missions in Thailand.
- The president of the MAT appeared several times on many TV channels to give opinion and answered how to deal with each question asked by the public.
- The president of the MAT also presided on several research meetings on COVID-19 at the Health System Research Institute to guide the research direction on many proposals and provided funding, a total of approximately 30 million Baht.

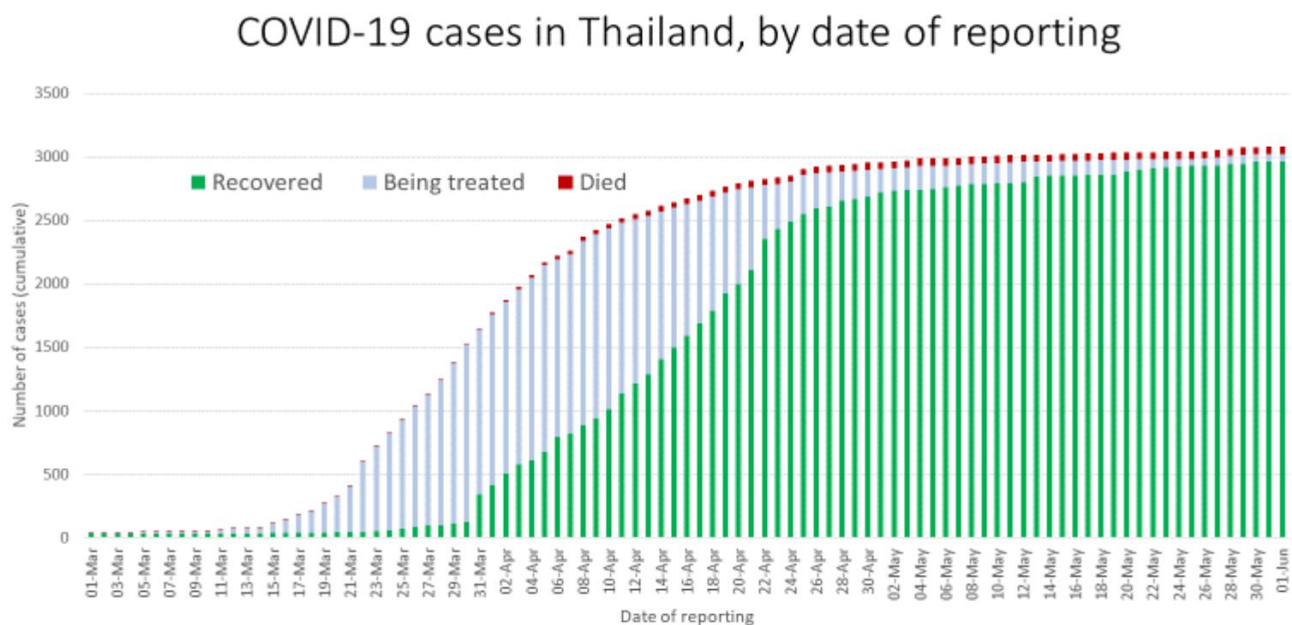
**This recommendations and advice for the public were frequently showed or repeated on social media and newspaper.** A common motto displayed almost everywhere in Thailand: “[You stay at home for doctors, Doctors stay at the hospital for you!!](#))

- Remain inside your home. Leave your home only for essential activities (e.g. medical care, purchase food).
- Always try to maintain a distance of at least 1 meter from all other persons.
- Wash your hands frequently. An alcohol-based hand rub is also effective
- Do not touch your eyes, nose or mouth.
- If unwell, wear a mask. Do not use N95 respirators as supplies are limited and they are critically needed for healthcare workers.
- Cough or sneeze into your elbow or a clean tissue. Dispose of tissues immediately and wash your hands.
- Do not shake hands, embrace, share eating utensils or smoking devices with other people.
- Keep all commonly touched surfaces clean. Advice on cleaning practices and the survivability of the SARSCoV-2 virus on surfaces & in different settings is available
- Avoiding close contact with people suffering from acute respiratory infections.
- Avoiding unprotected contact with farm or wild animals.

## The situation in June-July 2020 (after the battle, we won!!)

From the end of May to June, a newly infected case was reported to be less than 5 cases per day. Imported cases under state quarantine were found to be the infected cases. No local human to human transmission was discovered. Hence a gradual easing of lockdown measures and business restriction that had been planned into three steps, were implemented. It is reassured that in July, all existing COVID-19 lockdown measures will be lifted, including international flight restrictions and a complete reopening of a new normal Thai country. Interprovincial and international travel, as well as the emergency decree and curfew will come to an end. All tourism attractions and local businesses will be allowed to reopen from July onwards. However, to ensure a safe transition to normal operations, COVID-19 safety measures will remain in place as part of the new normal for travelers in Thailand for the foreseeable future. This is likely to include the continued use of PPE, face mask, hand wash, screening for febrile person and social distancing measures. People's cooperation remains very vital as long as the disease is still spreading somewhere worldwide and the Thai people still need to fight against COVID-19 for a while.

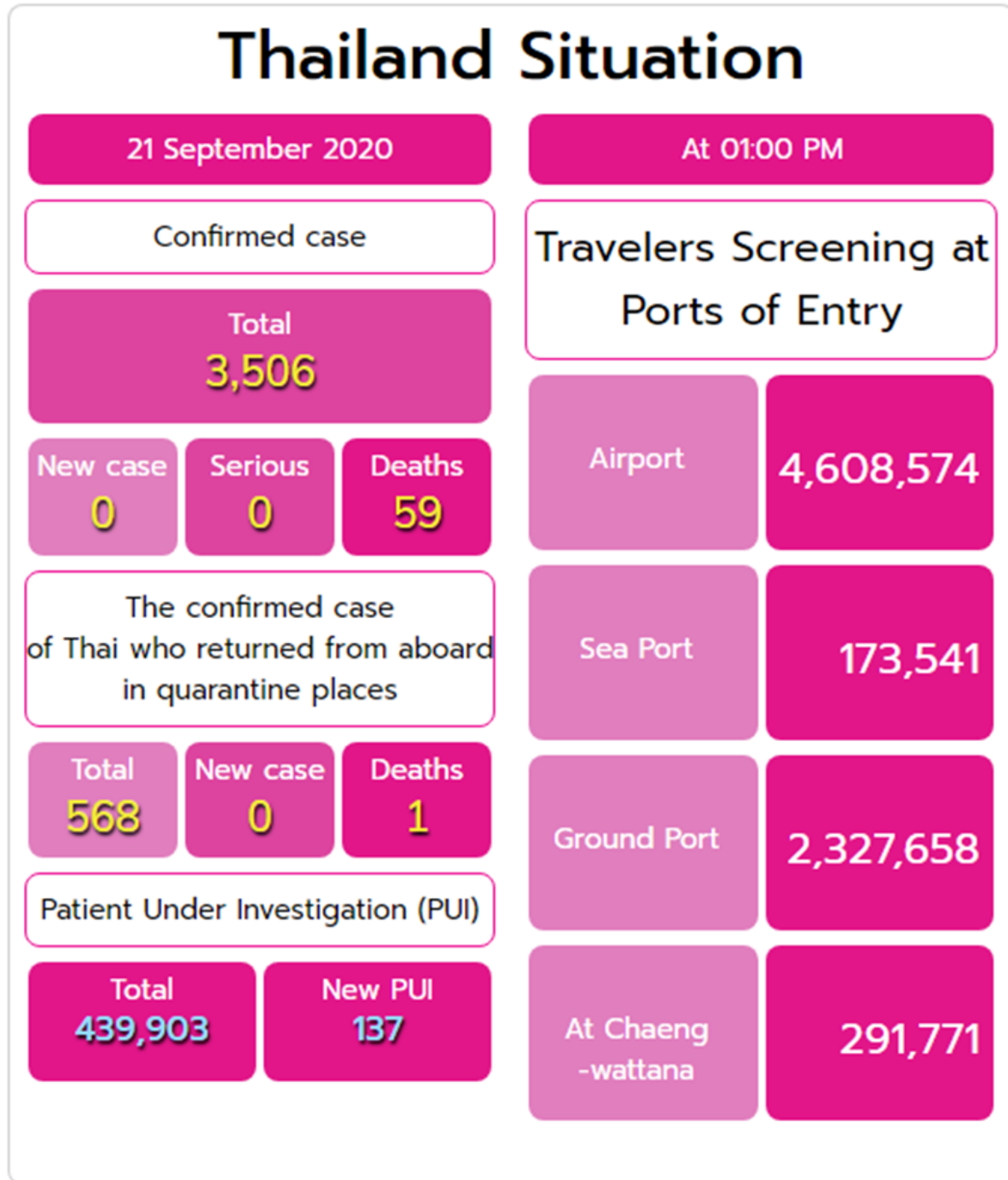
## The situation of COVID-19 in Thailand from March 1, 2020 to June 1, 2020



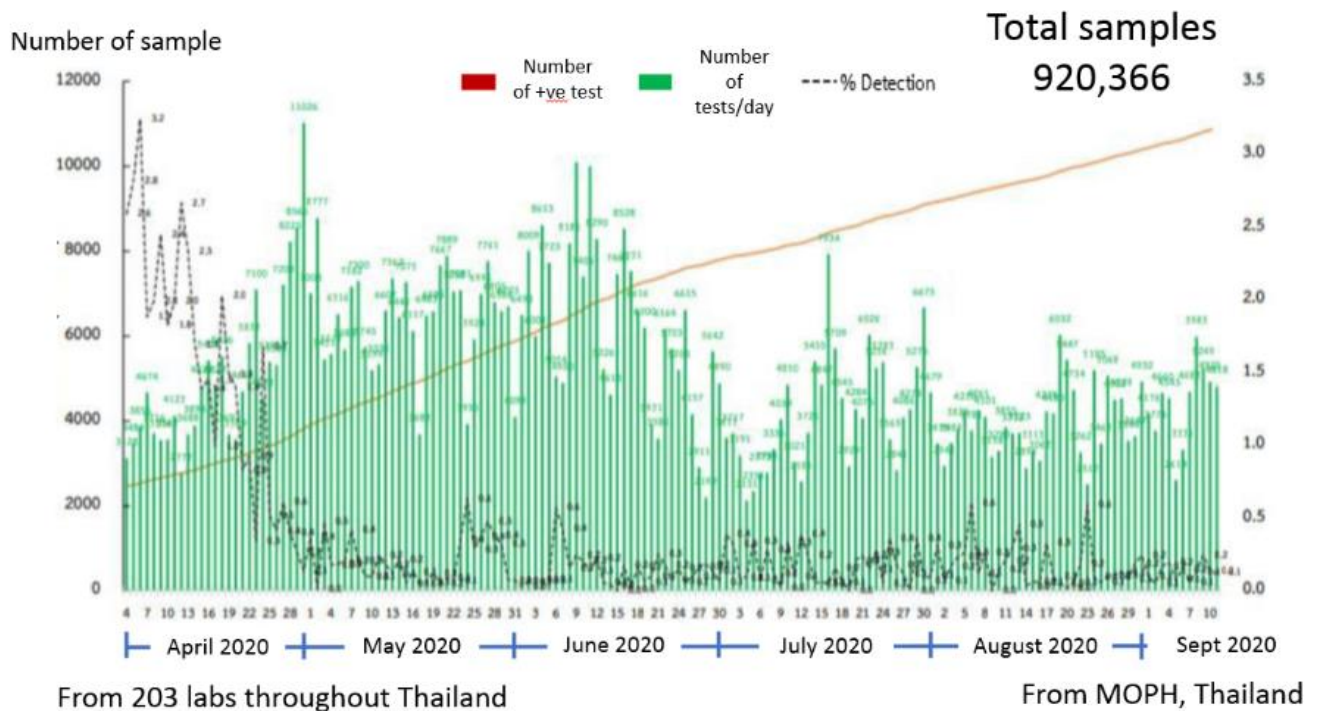
Source: MoPH, 01 June 2020



## COVID-19 Situation in Thailand from January- September 21, 2020



## Numbers of NPS samples and positivity rate From 4 April to 11 September 2020



**In conclusion, from January to September 2020, the countermeasure against COVID-19 activities performed by the Medical Association of Thailand that contribute to the COVID-19 control in Thailand can be summarized as following:**

1. Provides knowledge on disease, treatment and prevention of COVID-19 to doctors, medical staff and Thai people through many media such as TV, radio, information sheets on many websites including the Thai Medical Council and the Medical Association of Thailand.
2. Give moral support and educate physicians who work frontline how to take care the patients infected with or suspected of having SARS-CoV-2 infection as well as how to protect oneself from COVID-19 infection.
3. Act as a coordinating center to receive donation, anti-infectious medical devices especially masks and alcohol and distribute them to doctors, nurses, medical personnel and health volunteers nationwide as well as help create innovation device to protect doctors and nurses from getting infected while performing any procedures on the patients related to the respiratory tract.
4. Provide comments and recommendations to the Thai government administrators including the prime minister **in a special meeting** that "Health must come before the economy in COVID-19" by proposing measures in order to prevent the outbreak and prepare economic remedies for the grassroots people. In short, the keyword we proposed was **“Top-down and bottom-up of enforcement of community quarantine and social distancing”** at the early stage of the local spreading
5. Create a life insurance program for doctors and nurses who are white-shirt warriors in the care of patients with COVID-19. These also includes nurse assistants, radiologists and medical technicians nationwide. The Medical Association of Thailand has made two programs of life insurance with the Thai Life Insurance Public Co. Ltd., and if any individual passes away due to the coronavirus, the nominee will get the sum assured as the death benefit in the amount of one to five million baht.
6. Share and exchange bilateral experiences of COVID-19 treatment and prevention with medical professionals from China and some MASEAN countries.



7. Collaborate and initiate necessary clinical research activities through a national research organization (Health System Research Institute or HSRI), to provide timely preliminary answer to control COVID-19 including collecting the daily local epidemiological data of COVID-19.

8. Participate in a survey and give opinions and advice on preventive measures of COVID-19 to the administrator team of the largest chain of Department Store in Thailand “Central Department Store” as an sample for other stores when the stores will be re-opened for customers after the government has given permission to re-open the nationwide department stores.