

Countermeasures against COVID-19 including the Situation of the Vaccination The Medical Association of Thailand



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Situation of the current outbreak from April to July 2021 (Figure 1)

On 29th July 2021, 17,669 new cases of laboratory-confirmed COVID-19 and 165 new deaths were announced by the Thailand Ministry of Public Health. Four thousand, five hundred and eleven patients were classified with serious illness, of which 1,001 were receiving ventilator support. (Figure 1.)

- 261 cases of these new cases were in prison facilities
- 17 were detected in quarantine after arriving in Thailand from another country
- Cases due to transmission in the community include 14,782 cases detected through the routine surveillance system: (testing of people presenting at a healthcare facility for a variety of reasons, including presence of COVID-19 symptoms, contact with a case, concern about possible exposure)
- And 2,609 cases were identified through active case finding: (testing of people in the community at the initiative of public health authorities)

So far 185,976 cases were being monitored / receiving treatment (active cases). 9,798 cases recovered completely. A cumulative number of 370,492 cases had recovered from April to July 2021.

Alpha and delta variants of COVID-19 were isolated. Delta variant is the sole predominant strain of transmission at the end of July in Bangkok. (Figure 2.)

The trend of community transmission was upward starting from 2,000 cases in April to more than 10,000 new cases per day since the mid of July 2021 (Figure 3.)

Thailand's mass vaccination program for Covid-19

- More than 220,000 people on average per day had been vaccinated with either a first or second dose in the last 7 days of July 2021.

- 12,858,570 people had received a first dose, representing 25.7% of the Government target (70% of the population), and an increase from 16.8% the previous week.
- 3,732,759 people had received a second dose and so had complete vaccination, representing 7.46% of the Government target (70% of the population), a 0.5% increase from 6.2% the previous week
- Vaccination to give moderate herd immunity was expected to achieve in Bangkok by the end of August 2021

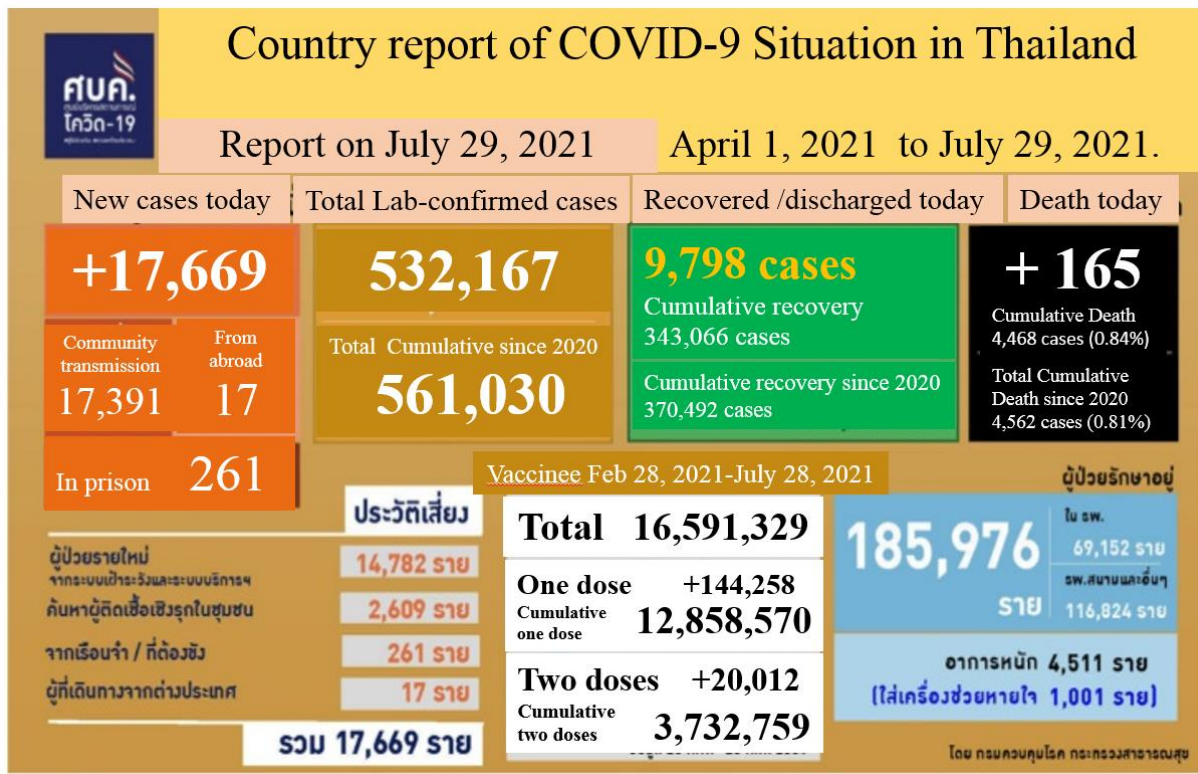
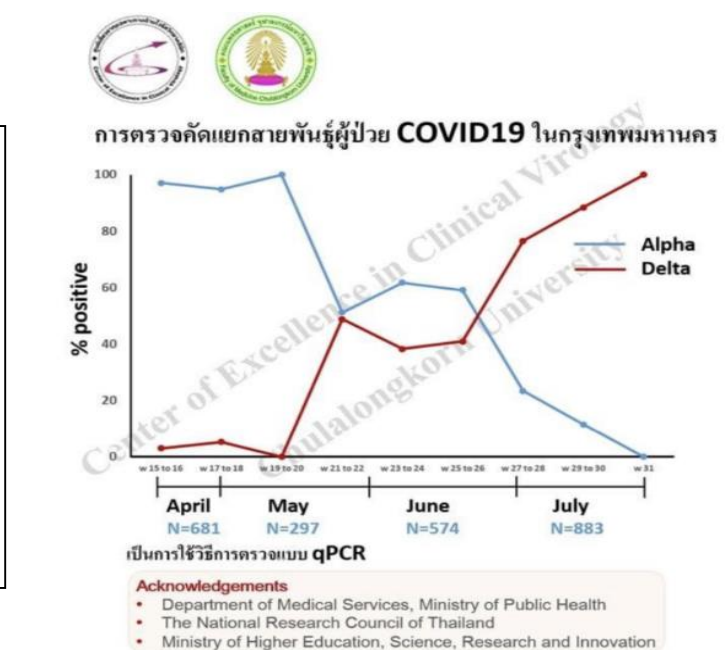


Figure 1. Situation of the COVID-19 outbreak from April to July 2021 in Thailand

Figure 2. Alpha and Delta were the SARS-CoV-2 variants isolated from infected patients in Bangkok during April-July 2021.

Delta variant became the sole predominant variant isolated at the end of July in Bangkok.



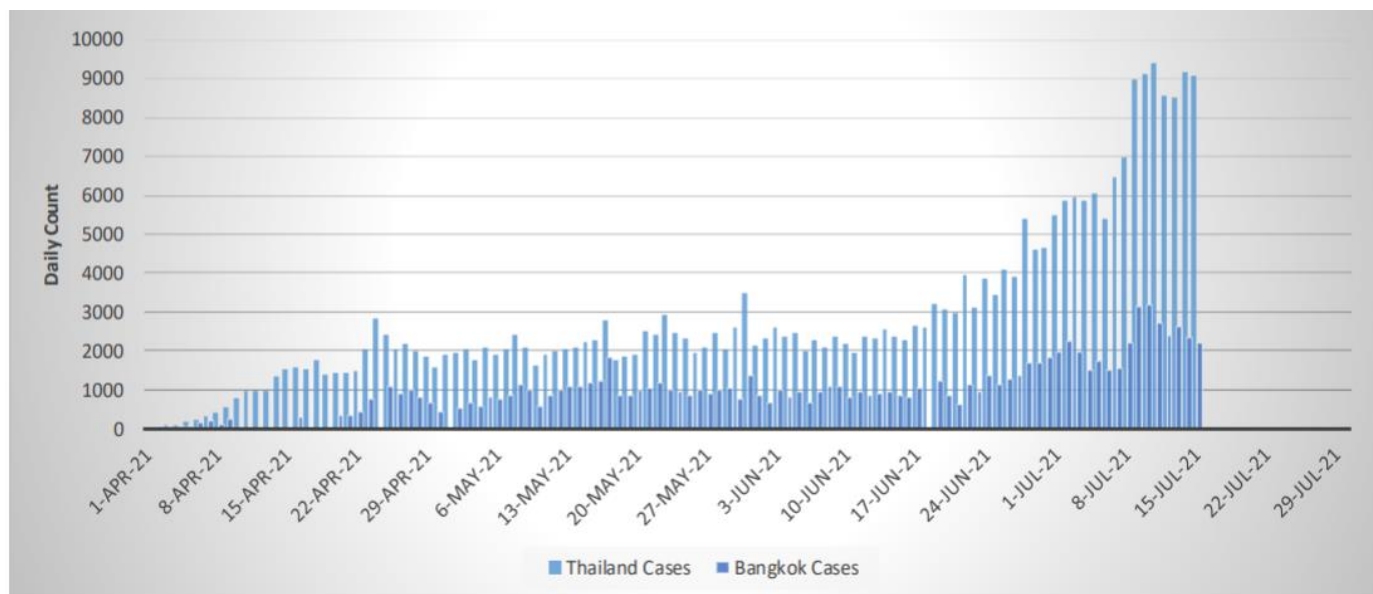


Figure 3. Number of active community-transmitted cases reported per day in Thailand and Bangkok. Community cases in Thailand increased with repeated highest daily counts since April till the end of July 2021. In Bangkok cases (deep blue color) have lowered slightly from the previous week but remain above daily counts seen earlier.

Type of vaccines available and vaccination program in Thailand

- For people aged between 18-60 years old received two doses of Sinovac vaccine 3-4 weeks apart.
- For people aged over 60 years old received two doses of AstraZeneca vaccine 8-12 weeks apart.
- For people with seven comorbidities also received two doses of AstraZeneca vaccine 8-12 weeks apart

A recent Thai study showed that for people receiving Sinovac vaccine as the first dose, a second dose consisted of AstraZeneca vaccine would raise the antibody to higher level than the two doses of Sinovac vaccination and gave rise to higher immunity against the delta variant. Hence the national policy of vaccination with Sinovac-Sinovac would be changed to Sinovac-AstraZeneca vaccine soon. However, those who still wanted to receive Sinovac 2 doses, were allowed to do so. Hence the new vaccination program would be a mixed and matched vaccination such as

- Sinovac or Sinopharm 1st dose followed by AstraZeneca 2nd dose, 3-4 weeks apart
- AstraZeneca 1st dose followed by a mRNA vaccine (Pfizer or Moderna) 2nd dose, 3-4 weeks apart
- Sinovac or Sinopharm 1st dose, Sinovac or Sinopharm 2nd dose followed by mRNA vaccine (Pfizer or Moderna) 3rd dose, 4 weeks apart

Countermeasures against COVID-19 conducted by the Medical Association of Thailand (the MAT)

The year 2020 has been a stressful year for the MAT and Thai medical profession which have been facing major challenges of COVID-19 outbreak in the country. This occasion is very unique since I was the president last year when the COVID-19 outbreak just took place and I am the first infectious disease specialist who becomes the MAT president in January 2020. With my experience of dealing infectious diseases for more than 40 years and opinions from our executive members, the MAT was able to counteract timely the outbreak and efficiently as followed

1. Provided advice on COVID-19 control as national policy to the prime minister in a personal meeting at the Government house office on March 2020 (Figure 4.)
2. Co-ordinated local organizations how to deal with various aspects of COVID-19 and gave lecture or discussion to provide critical thinking and opinion how to deal with COVID-19 outbreak to medical profession (Figure 5.)
3. Exchanged information and educated people through various public media how to protect themselves from acquiring COVID-19, how to cope with the infected patients at home or community isolation and gave information on the on-going variants of SARS-CoV-2. To emphasize that it was even more important than before that every single person in Thailand applied the simple, basic protective measures (the New normal life style) that would break chains of transmission. Finally, information on the efficacy and safety of COVID-19 vaccines available in Thailand was given to publics to encourage the target population to get vaccinated as soon as possible. (Figure 6.)
4. Bought a group insurance package to cover 60,000 doctors and 280,000 nurses for one year who worked frontline caring COVID-19 infected patients. The group insurance had death benefit of 5,000,000 Baht per person paid to legal relative if this frontline workers (doctor or nurse) died from active COVID-19 while on duty in healthcare setting. (Figure 7.)
5. Provides research funding by collaborating with a private sector (Central Department Store) to receive donation worth approximately 100,000,000.00 Baht for conducting research on COVID-19 prevention and vaccination. (Figure 8.)
6. Played role as a central body to receive and disseminate the donation of masks, PPE, etc., freely to our doctors and medical personnel working in the urban and rural hospitals. (Figure 9.)
7. The MAT had an opportunity to collaborate with our friends at the Chinese Medical Association to share the knowledge and experience in caring patients with COVID-19 in the early outbreak. (Figure 10.)
8. The MAT activities done in the early year 2020 to empower Thai society to get through COVID-19 together, were recorded in the e-book available online (Figure 11.) <http://online.anyflip.com/tbkj/mqkq/mobile/index.html>



Figure 4. Professor Dr. Amorn Leelarasamee (purple suit), Professor Dr. Somsri Paosawasdi, Professor Dr. Ronnachai Kongsakon provided advice on COVID-19 control as national policy to the prime minister Gen. Prayut Chan-O-cha in a personal meeting at the Government house office on March 2020.

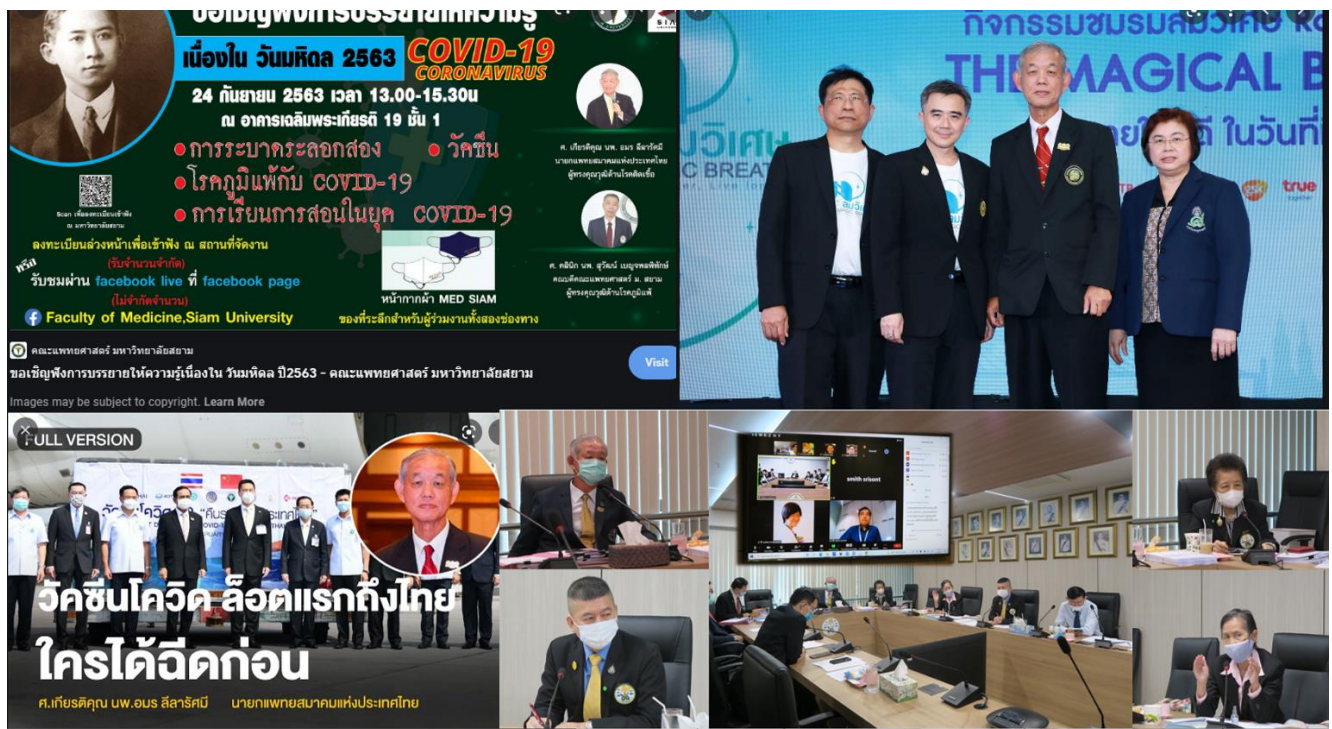


Figure 5. Co-ordinated local organizations how to deal with various aspects of COVID-19 and gave lecture or discussion to provide critical thinking and opinion how to deal with COVID-19 outbreak to medical profession



Figure 6. Exchanged information and educated people through various public media how to protect themselves from acquiring COVID-19, how to cope with the infected patients at home or community isolation and give information on the on-going variants of SARS-CoV-2. To emphasize that it was even more important than before that every single person in Thailand applied the simple, basic protective measures (the New normal life style) that would break the chains of transmission. Finally, information on the efficacy and safety of COVID-19 vaccines available in Thailand was given to encourage the target population to get vaccinated as soon as possible.





Figure 7. The MAT bought a group insurance package to cover 60,000 doctors and 280,000 nurses for one year who worked frontline caring COVID-19 infected patients. The group insurance had death benefit of 5,000,000 Baht per person paid to legal relative if this frontline workers (doctor or nurse) died from active COVID-19 while on duty in healthcare setting.



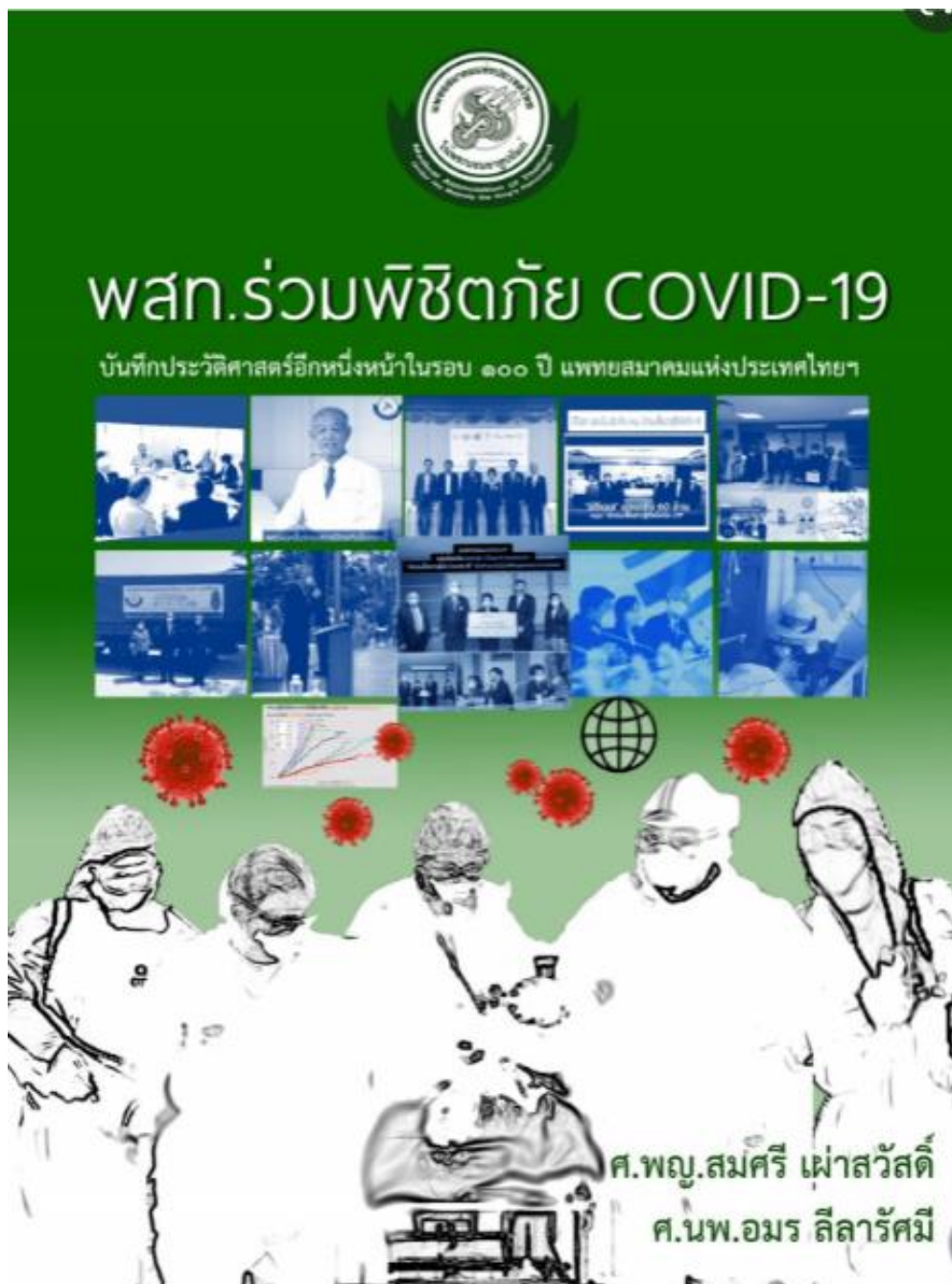
Figure 8. The MAT provided research funding to the three Medical Schools by collaborating with a private sector (Central Department Store) to receive donation worth approximately 100,000,000.00 Baht for conducting research on COVID-19 prevention and effectiveness of COVID-19 vaccination.



Figure 9. The MAT, as a central body, received and disseminated the donation of masks, PPE, etc. freely to our doctors and medical personnel working in the urban and rural hospitals.



Figure 10. The MAT had an opportunity to hold an online teleconference with the Chinese Medical Association to share the knowledge and experience in caring patients with COVID-19 in the early outbreak by organizing an online teleconference through national television network (MCOT TV).



All historic events, activities performed by the MAT to promote facts over fear, research funding, donating medical equipment and bringing trustworthy guidance and answering questions that Thai society had on COVID-19 in all aspects during January to July 2020 in Thailand, were recorded in the 363-page colorful e-book at the centennial establishment of the MAT.

<http://online.anyflip.com/tbkj/mqkq/mobile/index.html>

Figure 11. The MAT activities done in the early year 2020 to empower Thai society to get through COVID-19 together, were recorded in the e-book available online. The front page was showed here and the e-book contained 363 pages.

<http://online.anyflip.com/tbkj/mqkq/mobile/index.html>

Countermeasures against COVID-19 performed by the Government

All activities and collaborations with local and international organizations including WHO had been done quite satisfactory and been tremendously helpful and very critical in the proper guidance of national control measures of COVID-19. Some of the figures representing some of the recent activities or guideline were included here and contained self-explained pictures. One should search such information in detail through the official public relation of the government organization. The central body to act swiftly for the disease control has been legally established as The Centre for COVID-19 Situation Administration (CCSA). This centre held daily or frequent meetings and gave orders timely to curve or stop the spread of COVID-19 in Thailand.

A group review highlighted factors that contributed to successful management of the early pandemic in Thailand.

- Strong leadership informed by the best available scientific evidence
- Administrative systems adapted to changing demands
- A strong, well-resourced and inclusive medical and public health system. This includes early and effective management of patients in hospitals and a strong capacity to trace and quarantine contacts using Rapid Response Teams and Village Health Volunteers
- Previous experience with major infectious disease outbreaks including SARS, Avian Influenza, and Influenza H1N1
- Starting entry screening early led to detection of the first case outside China. This allowed authorities to educate hospital and public health workers, and members of the public to the threat
- Cultural norms including non-contact greeting and mask wearing, supported by consistent and transparent communication improved public compliance with protective measures
- Early adoption of a ‘whole of society’ approach included active engagement with academia and the private sector



แนวปฏิบัติการตรวจคัดกรองด้วย ATK และการตรวจหาเชื้อ COVID-19

(ตามแนวทางของกรมวิทยาศาสตร์การแพทย์ วันที่ 20 กรกฎาคม พ.ศ. 2564)

1. ใช้ชุดตรวจที่ใช้ผ่านการประเมินและขึ้นทะเบียนกับสำนักงานคณะกรรมการอาหารและยาแล้ว
2. ตัวอย่างที่ใช้ตรวจเก็บจาก nasopharyngeal, oropharyngeal, nasal swab และใช้ buffer ตามที่ชุดตรวจกำหนด
3. อาจพิจารณาใช้เพื่อการคัดกรองเบื้องต้น (รูปที่ 1)

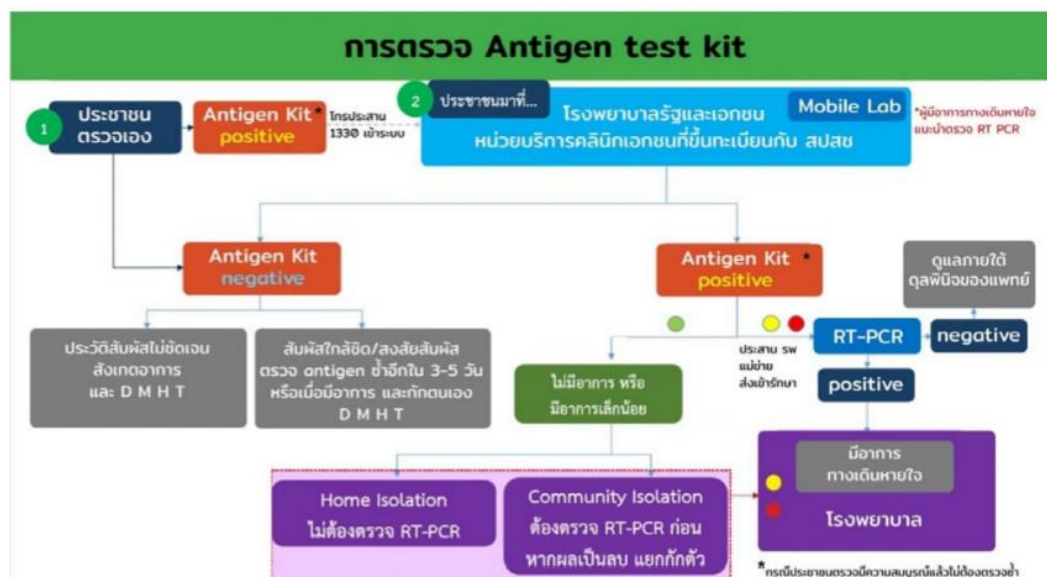


Figure 12. Active case finding: An enhanced COVID-19 surveillance system was established and sustained to detect individual cases and small clusters. Active routine testing of all suspected persons meeting standardized case definitions by the Royal mobile car equipped with the RT-PCR facilities or antigen self-test kit provided an early-warning system for community transmission, helped to monitor the pandemic's impact, and supported the early treatment with favipiravir and introduction of home/community isolation and an eventual vaccine.



Beds at the Covid-19 field hospital in the Impact convention and exhibition complex in Nonthaburi province. (Photo: Pornprom Satrabhaya)



Instructions for
HOME ISOLATION
in mild COVID-19 cases



**ISOLATE YOURSELF
FROM OTHERS IN
YOUR HOME**

**DON'T SHARE
DISHES, CUPS,
UTENSILS, TOWELS
OR BEDDING**



**USE A SEPARATE
BATHROOM, IF
POSSIBLE**

**DON'T CONTACT
WITH PETS AND
OTHER ANIMALS, IF
POSSIBLE**



**WASH YOUR
HANDS OFTEN**

**DON'T GO OUTSIDE
FOR ANY REASON**



**WEAR A FACE
MASK AROUND
OTHER PEOPLE AND
PETS**

**DON'T SHARE
SPACE WITH
HOUSEMATES, IF
POSSIBLE**



**OPEN WINDOWS
TO ALLOW AIR
CIRCULATION**

**DON'T ALLOW ANY
VISITORS TO ENTER
YOUR HOME**



Source: Ministry of Public Health of Thailand



<https://thailand.prd.go.th>



PR Thai Government



PRD



Figure 13. The Division of Disease Control (DDC) of MOPH Thailand advises the following:

1. Wash your car every time you return home with detergent and clean the door handles, upholstery, steering wheel and controls.
2. Keep shoes outside your room or house.
3. Dispose of your face masks at a separate dust bin.
4. Clean your wristwatch, baggage, smart phone, glasses and keys with sanitizer.
5. Wash your hands with soap for at least 20 seconds.
6. Avoid touching anything in the house or sitting on a chair or sofa before taking a shower.
7. Avoid touching any pet or anyone else in the house or apartment.
8. Separate the clothing worn outdoors from those worn indoors.
9. Take a shower and wash your hair immediately upon returning home.
10. Use a personal cutlery and plates when dining with other family members.

COVID-19 GUIDELINES

FOR 14-DAY SELF-QUARANTINE



Cover your nose and mouth
with a mask or napkin
while sneezing and coughing



Sleep in a separate bedroom



Wear mask



Stay home



Keep your distance
from others (about 2 meters)



Don't share your food



Separate personal
use items



Use detergent
or hot water 60-90 °C
for laundry



Wash your hands often
with soap for
at least 20 seconds

Who should self-quarantine?



Travel to/from risk area



Living in risk area



Have close contact with
someone from risk area



In contact with
contagious person



Self-Observation Guide

- High Fever
- Chest Tightness
- Shortness of breath

**If these symptoms present,
please seek medical assistance immediately*

 **BANGKOK
HOSPITAL**

 **1719**

ฉบับปรับปรุง วันที่ 21 กรกฎาคม พ.ศ. 2564 สำหรับแพทย์และบุคลากรสาธารณสุข
แนวทางเวชปฏิบัติ การวินิจฉัย ดูแลรักษา และป้องกันการติดเชื้อในโรงพยาบาล
กรณีโรคติดเชื้อไวรัสโคโรนา 2019 (COVID-19)



การรักษา COVID-19 แบ่งกลุ่มตามอาการได้เป็น 4 กรณี ดังนี้

1. ผู้ติดเชื้อ COVID-19 ไม่มีอาการอื่น ๆ หรือสลายติ (Asymptomatic COVID-19)
 - แนะนำให้แยกกักตัวที่บ้านหรือในสถานที่รัฐจัดให้อย่างน้อย 14 วัน นับจากวันที่ตรวจพบเชื้อ ระยะเวลาการกักตัว (ในสถานพยาบาลรวมกับที่บ้าน) อาจนานกว่านี้ในผู้ป่วยบางรายขึ้นกับดุลยพินิจของแพทย์
 - ให้ดูแลรักษาตามดุลยพินิจของแพทย์ ไม่ให้ยาด้านไวรัส เนื่องจากส่วนมากหายได้เองและอาจได้รับผลข้างเคียงจากยา
 - พิจารณาให้ยาฟ้าทะลายโจรในกลุ่มที่ไม่มีอาการขึ้นกับดุลยพินิจของแพทย์
2. ผู้ป่วยที่มีอาการไม่รุนแรง ไม่มีปอดอักเสบ ไม่มีปัจจัยเสี่ยงต่อการเป็นโรครุนแรง/โรคร่วมสำคัญ ภาพถ่ายรังสีปอดปกติ (Symptomatic COVID-19 without pneumonia and no risk factors for severe disease)
 - พิจารณาให้ favipiravir เริ่มให้ยาเร็วที่สุด
 - หากตรวจพบเชื้อมาเกิน 7 วัน และผู้ป่วยไม่มีอาการหรือมีอาการน้อยอาจไม่จำเป็นต้องให้ยาด้านไวรัส เพราะผู้ป่วยกลุ่มนี้น่าจะหายได้เองโดยไม่มีภาวะแทรกซ้อน
 - แนะนำให้แยกกักตัวที่บ้านหรือในสถานที่รัฐจัดให้ หากเข้าเกณฑ์ที่จะได้รับการรักษาแบบ home isolation หรือ community isolation ก็สามารถให้การรักษาลักษณะดังกล่าวได้ โดยให้ปฏิบัติตามหลักการแยกโรคติดเชื้อทางเดินหายใจ เป็นเวลาอย่างน้อย (รวมทุกระบบการรักษา) 14 วัน นับจากวันที่เริ่มมีอาการหรือจนกว่าอาการจะดีขึ้นอย่างน้อย 24-48 ชั่วโมง
3. ผู้ป่วยที่ไม่มีอาการ หรือมีอาการไม่รุนแรง แต่มีปัจจัยเสี่ยงต่อการเป็นโรครุนแรง หรือมีโรคร่วมสำคัญ หรือผู้ป่วยที่มีปอดบวม (pneumonia) เล็กน้อย ซึ่งไม่เข้าเกณฑ์ข้อ 4 (COVID-19 with risk factors for severe disease or having co-morbidity or mild pneumonia) ปัจจัยเสี่ยงข้อใดข้อหนึ่งต่อไปนี้ ได้แก่ อายุ >60 ปี โรคปอดอุดกั้นเรื้อรัง (COPD) รวมโรคปอดเรื้อรังอื่น ๆ โรคไตเรื้อรัง (CKD) โรคหัวใจและหลอดเลือดรวมโรคหัวใจแต่กำเนิด โรคหลอดเลือดสมอง

Home

Figure 14. The MOPH Thailand in collaboration with several academic organizations issued or periodically amended the national Clinical Practice Guideline for all physicians to follow in order to give the best appropriate treatment and caring to all patients. In fact, the MOPH Thailand recognized and enhanced coordination by developing a ‘concept of operations’ for Public Health Emergency Operations Centres (EOC) with established and tested standard operating procedures that improved operational efficiency between EOCs at the national and sub-national levels, and strengthened collaboration with other Ministries, including the Ministry of Interior’s Department of Disaster Prevention and Mitigation.