

COVID-19 Pandemic in Thailand: Implementing Containment Measures and Their Ethical Challenges

Hongsuda Sornklin

National Science and Technology Development Agency

Thitiwan Kerdsomboon (✉ thitiwank@nstda.or.th)

National Science and Technology Development Agency

Yongyuth Yuthavong

National Science and Technology Development Agency

Prasit Palittapongpim

National Science and Technology Development Agency

Soraj Hongladarom

Chulalongkorn University

Yong Poovorawan

Chulalongkorn University

Don Nakornthab

Bank of Thailand

Somkiat Wattanasirichaigoon

Mahidol University

Prasert Auewarakul

Mahidol University

Tanarak Plipat

Department of Disease Control

Rattanapan Phoomirat

National Science and Technology Development Agency

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Abstract

Containment measures have been implemented in Thailand after the country was hit by the Covid-19 pandemic. The top priority is to save people's lives. Unavoidably, serious consequences that affected the people's income, privacy, needs, equality, and equity emerged, presenting new challenges. In order to begin to investigate these complex ethical questions, the Office of Research Integrity of National Science and Technology Development Agency organized a meeting in order to bring together key experts in various fields related to the Covid-19 pandemic to discuss what was going on in Thailand and how to manage it properly. Three key ethical settings, each of which caused significant effects, were discussed in the meeting, namely public health, medical services, and research and clinical trial settings. Many key ethical issues were revealed during the meeting, as well as how best to address and manage them properly.

Introduction

After Covid-19 was found in Thailand, as a part of the worldwide pandemic, Thailand has coped with this severe crisis effectively, and the country has been ranked among the top with the highest Covid-19 recovery index issued by the Global COVID-19 Index (GCI, 2020). The death toll still stands at around 58 (as of September 2020) since the first outbreak was detected in January. Several measures, along with the country's excellent healthcare system, have been implemented strongly in order to limit the number of infected people and deaths. Social distancing, quarantine and isolation, maintaining standard hygiene, as well as lockdowns of different stringencies, are the main measures utilized to slow down the coronavirus spread in Thailand.

As a result, such serious lockdown actions also generated a number of negative effects causing significant damage to the economy. Moreover, other ethical challenges have been exposed in this trying time, such as inequality in access to healthcare services, public goods, and financial support for vulnerable people, balancing individual and public needs. These ethical issues could produce unintended consequences and negative impacts. Therefore, the key question is how to contain the coronavirus spread without locking down the communities too tightly or too long. For this purpose, the NSTDA office of Research Integrity (ORI) convened a forum meeting of experts who play key roles in the COVID-19 pandemic under the topic of "COVID-19 Pandemic in Thailand: Implementing Containment Measures and Their Ethical Challenges". The meeting was held at Thailand Science Park on 2 June 2020.

The goals of the meeting were

- to reveal information about the current situation in Thailand,
- to review the ethical issues emerging after using the strong measures, and
- to provide suggestions for a further action plan.

The forum showed a heightened level of cooperation among many institutions in the country. The meeting was designed to convene in a panel discussion format, moderated by Prof.Dr. Prasert

Auewarakul, an expert on infectious diseases in Thailand. The panel consisted of experts, scientists, and researchers from various fields of the healthcare system, including policymakers. These were Emeritus Prof. Dr. Yongyuth Yuthavong and Prof. Dr. Prasit Palittapongarnpim from the National Science and Technology Development Agency (NSTDA), Prof. Dr. Soraj Hongladarom and Prof. Dr. Yong Poovorawan from Chulalongkorn University, Dr. Somsak Chunharas from the National Health Foundation, Dr. Don Nakornthab from the Bank of Thailand, Prof. Dr. Somkiat Wattanasirichaigoon from Mahdol University as a representative of the National Research Council of Thailand (NRCT) and Dr. Tanarak Plipat from the Department of Disease Control. In addition, the meeting was attended by 67 representatives from various fields of organizations, representing Prince of Songkla University, Kasetsart University, Health Systems Research Institute, Khon Kaen University, Thailand Center of Excellence for Life Sciences, the office of National Higher Education Science Research and Innovation Policy Council, including NSTDA staff and correspondents from Thai PBS world, Green Network and Engineering Today.

The output of the meeting was classified into three main areas:

- Current situation of Thailand's pandemic and its measures
- Ethical Challenges and their implications
- Suggestions for further action

Current Situation In Thailand

According to the daily reports of the Department of Disease Control, only one new locally transmitted case has been recorded from May 26 to September 8, 2020, leaving the accumulated total at 3,490 – 3,325 of whom have recovered as of September 17, 2020. The death rate in Thailand is about 1.66%. It is likely that the outbreak has already been contained in Thailand. Meanwhile, the number of Covid-19 tests per week, 45,000, is comparable to many other countries, although these have been considered rather low for a country of 69 million. Moreover, the number of 100-1000 tests per confirmed case as performed in Thailand is higher than a general benchmark of adequate testing which is suggested by the WHO (Our World in Data, 2020).

In terms of scientific discovery, although we have already known about the coronavirus for more than 80 years, there have been very few studies on how coronavirus could exactly cause human infection. This vagueness has caused difficulty in finding the best solution for policymakers. Apparently, Thailand is now at a crossroad: either it should 1) keep the current policy of locking down the nation in order to limit the newly infected cases to the lowest numbers or zero as quickly as possible, or 2) relax the lockdown policy to relieve the economy downturn.

Simulation of pandemic spread patterns is one of the effective tools to find a proper solution that fits well with available medical resources at a certain time. The simulation model illustrates three scenarios of how these measures could save lives. According to a forecast done in June 2020, new infection number in Thailand would be about 15 cases/day by September 2020, on the condition that the current measures

are maintained, while the numbers would be increased to 144 and 398 cases/day if selective relaxing and most relaxing measures are used respectively. As it turned out, in early September 2020 there have still been consistently fewer than 10 cases/day, all but one of which came from returning residents from overseas.

In March 2020, with limited medical resources, the Thai government decided to use hard lockdown as the main measure at an early phase. Since the first pandemic phase began, strong measures, namely, social distancing, working from home, locking down the whole country, state and local quarantine, isolation, mask-wearing, hand washing, hot-meal eating as well as hospital screening were used throughout the country in order to limit the number of new patients to the lowest level. The lockdown measures resulted in a 77% pandemic reduction compared to the initial situation before the lockdown. Quarantine and isolation methods were found to be the most effective tools for pandemic control.

In the second phase when the infection rate was less than 50% compared to the initial stage, containment measures were slightly relaxed in order to prevent a second wave of infection. Nevertheless, the consequences of the measure, namely people's well-being and incomes, healthcare system, technology development, and utilization as well as the shrinking economy emerged, presenting new challenges. They also need to be supported by the government thoroughly and fairly.

"This pandemic control is like a marathon that just got out of the beginning. There is still a long distance to reach the finish line. Therefore, adapting to a particular situation continuously is required in this crisis."
Prof. Yong Poovorawan

The solutions for these incoming challenges, such as Thailand's adaptation in a global context regarding investment and trading, restoration of tourism business as well as the strategic areas of the national development plan, namely food, healthcare, and digital sectors should be reviewed and promoted afterwards.

Covid-19: Ethical Challenges

There was a consensus among the panelists that the main ethical challenges emerging in the Thai context during the COVID-19 pandemic are categorized into three domains;

1. Public Health Setting: How to maintain economic development while the nation is locked down.
2. Medical Service Setting: An equality to access the healthcare system
3. Research and Clinical Trials Setting: The integrity and accuracy of the information as well as the technology verification during the crisis period

1) Public Health Setting: the effect on the economy

The Covid-19 pandemic has triggered the most severe economic recession in nearly a century and has caused enormous damage to the health, jobs, and well-being of the people (OECD's latest Economic

Outlook). The critical question is what the solutions are to secure our businesses, maintain our jobs, and stabilize financial markets and economies from now on.

In the case of Thailand, saving lives was the top policy priority in the early phase of the pandemic. In the meantime, the impact on people's well-being and the economy was also considered.

"By effective implementation of containment measures, the impact on the economy would be minimized and it will completely shorten the cycle of the pandemic spread" Dr. Tanarak Plipat.

Unavoidably, after the lockdown measures were implemented, several groups of people, especially those who are vulnerable e.g. elderly, disabled, or low-income people, were affected severely from their inability to earn their living. In this case, the key ethical challenge is to find a balance between the economic well-being of people and respect of human rights on the one hand, and control of the pandemic on the other. From the beginning of the pandemic, the Thai authorities have used a vast array of measures to support healthcare systems and maintain people's earnings, as well as to help businesses and to stabilize financial markets. A government subsidy program in the form of 5,000 baht payout for three months was one of the urgent actions designed to alleviate the hardship of the people who were affected by the crisis. Regarding the financial sector, the authorities took action proactively through government interventions to stabilize the mutual fund and the bond markets to prevent meltdown and spillover to financial institutions. A major soft loan program for banks' SME customers has also been deployed to ensure that viable SMEs have access to the needed liquidity (Bank of Thailand, 2020).

In particular, SMEs were found to be one of the most vulnerable groups. At least 1.3 million cases were affected by business closure and the decline of overall demand (as of 2 June 2020), according to the National Research Council of Thailand's analysis of the Covid-19 effect on the Thai economy. The industrial sectors, including tourism, financial, commodity, and export businesses, were enormously damaged, requiring a massive amount of help from the government. The establishment of new businesses tended to decrease. Nonetheless, there were some positive consequences, such as the markedly lower number of cases of respiratory tract infection in the country (Suntronwong et al., 2020), lower incidences of car accidents compared to the same period time of the last year (MoPH, 2020), and recovery of the environment and natural resources (WHO, 2020).

To address the effect on the economy, a policy framework for dealing with the situation was developed to help the vulnerable people associated with each phase of the outbreak as shown in Figure1. The framework illustrates the combination of the measures of public health and financial supports at each stage of the crisis.

Another problem arising from the enforcement of social distancing measures is a threat to personal rights and privacy. Locking down the whole country resulted in the people's daily activities being suspended, including hanging out with friends, traveling with family, shopping outside, visiting parents, and many more. Many were prevented from conducting their daily work, which resulted in economic

hardships. Thus, a balance needs to be found between alleviating these hardships and the threats to personal rights, as well as maintaining effective control of the pandemic.

2) Medical Service Setting

Fair allocation of scarce medical resources was raised as another significant ethical aspect in the meeting. Not only Thailand, but also the world was facing a shortage of medical supplies and services ranging from hand sanitizers, masks, drugs, PPE, ICU beds to ventilators. Mechanical ventilation will be the most problematic issue if the pandemic reaches an uncontrollable point (Truog et.al, 2020). When the demand for ventilators and other respiratory devices outpace the supply available to health care facilities, decisions would have to be made as to who will get to stay in the available hospital beds or to use the ventilators. Although Thailand has not yet come to that point, the triage decision needs to be set up beforehand with consideration of human rights and equality.

There are some relevant ethical principles as the choices for doctors to make the decision when the medical healthcare services are insufficient, including the approaches of utilitarianism, first-come-first-served, autonomy, and respect for human dignity or justice (DePergola, 2020). Combining these approaches in order to find best the situation should be considered as another choice as suggested in the meeting. Recently, this ethical issue has still been argued widely all over the world by which approach could save lives most for the Covid-19 pandemic. There are several ethical considerations to deal with this triage decision making which have to be transparent and non-discrimination. Many countries have bioethical committees or guidelines to support such triage decision making. For this reason, setting a national Covid-19 protocol in Thailand to have a practical guideline in advance would be needed. Available empirical data should be exploited to support guideline development.

3) Research and Clinical Trials Setting

Another current ethical dilemma is that there is a high demand for medical devices and services, while these technologies are still in the developing stage. The lengthy process of technology development would be problematic in this situation due to the fact that a full recovery of our economy would be impossible until the supply of the Covid-19 vaccine taken place. Besides the time-consuming technology development, we still need to shorten the process of research funding considerations in this rush period as well. Although there is plenty of research funding available from both domestic and international organizations, the world is still facing the shortage of medical goods, the Covid-19 vaccine and treatment in particular.

“Since there is tremendous pressure from all sides for achieving the vaccine development and production as quickly as possible, there is a question of whether the usual steps required in such development should be sidestepped or not. Is this justified?” Prof. Soraj Hongladarom.

Moreover, lacking a certification body for medical devices and treatment is another significant problem in Thailand, although such technologies are ready to be implemented locally.

Similarly, there is another question about an ethical point of the accuracy of published data during this crisis time. There has been much information regarding Covid-19 published recently without reviewing or verification, giving and taking false information or unverified information will cause fear, confusion, and traumatic stress among people. On the other hand, it is crucial for the government to provide accurate and up-to-date information to their people, particularly during times of crisis. Disclosing necessary information to the public regarding the fact of the Covid-19 pandemic is one of the ethical considerations that are also influential in this situation. Juggling between obtaining precise information and quick communicating to people sufficiently during such a decisive period may need to be further managed systematically.

Moreover, technology exploitation to solve the ethical challenges mentioned above was recommended extensively in the meeting. Technology development associated with this situation was mentioned widely in various dimensions, such as data collection, digital divide, tracking people's movement, evaluating economic impact, and using digital currency, etc. Digital technologies have been adopted extensively to contain the Covid-19 pandemic in many countries (Dubov and Shoptaw, 2020). For example, China uses the Alipay Health Code app to track its citizen's travel history and current symptoms (Tan, 2020). Similarly, Israel has been tracking people's phones in order to track a suspected carrier movement and whom they contact. Through this tracking, the potential contacts will be ordered to self-quarantine through text messages in a timely manner. These measures need scrutiny and refinement in light of ethical implications. Furthermore, several organizations of academic, public and private sectors in Thailand have adopted digital technologies widely for many activities such as remote learning, meeting and working, using Thai Chana mobile application for tracing people's activities in this situation. The Thai government has further utilized social media platforms to connect with people. These ways of technology adoption could help the lockdown measure to be more relaxed that would lead to more alleviate the subsequent effect on the economy eventually (Chen, 2020).

Suggestion For Future Action And Conclusion

In conclusion, finding a balance between keeping people's health and economic well-being is critical for policymakers while the containment measures are being implemented. Although there seems to be no fixed solution fitting all countries to cope with the outbreak, continuous analysis of the situation is needed for Thailand as well as other countries. Nevertheless, there are several consequences awaiting the next step to deal with. This crisis also provides a lesson for discussions that lead up to the drafting and adoption of a guideline on ethical considerations. The national strategy on security, healthcare system, technology development, and utilization has to be reviewed as a significant priority and adjusted to fit well with the global new normal.

Since the ethical issues are relevant to various people, including public health workers, researchers, business people, policymakers, and local administrators, there must be a multidisciplinary collaboration platform for related agencies to work together. As for the next step in the process of policy development and implementation, it is crucial to have mechanisms that enable wider participation from the various

relevant sectors working on emerging ethical issues systematically. Technology also plays a crucial role in solving problems regarding pandemic restriction and lockdown implementation.

The key conclusion of the forum is that, in order to understand the overall situation and consequences of the coronavirus pandemic on Thai societies, the ethical dimensions need to be taken seriously. Bringing together the key players from various national authorities provides a variety of perspectives as well as comprehensive recommendations to all those involved. The forum also hopefully triggered the cooperative implementation of emerging ethical considerations among related authorities, which will be the next step forward.

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References

Bank of Thailand. 2020. "Additional measures to assist SMEs affected by COVID-19 and to stabilize corporate bond market." Accessed 10 July.

<https://www.bot.or.th/English/PressandSpeeches/Press/2020/Pages/n2063.aspx>.

Chen, Rong. 2020. "Harnessing digital technologies to sustain the economy during the COVID-19 crisis." World Bank, Accessed 12 July. <https://blogs.worldbank.org/developmenttalk/harnessing-digital-technologies-sustain-economy-during-covid-19-crisis>.

DePergola, Peter, A. 2020. "Ethical Guidelines for the Treatment of Patients with Suspected or Confirmed Novel Coronavirus Disease (COVID-19)." *Online Journal of Health Ethics* 16 (1), Accessed 9 September. <http://dx.doi.org/10.18785/ojhe.1601.04>.

Dubov, Alex, and Steven Shoptawb. 2020. "The Value and Ethics of Using Technology to Contain the COVID-19 Epidemic." *The American Journal of Bioethics* 20 (7):W7-W11. doi: 10.1080/15265161.2020.1764136.

GCI. 2020. "The Global Covid-19 Index Dashboard." Pemandu Associates, Accessed 12 July. <https://covid19.pemandu.org>.

Ministry of Public Health (MoPH). 2020. "PHER: Accident & Emergency Data." Accessed 1 August. <https://ddc.moph.go.th/odpc7/news.php?news=12446&deptcode=odpc7>.

Nakornthab, Don. 2020. "Policy Framework for coping with Covid-19." Accessed 2 August. <https://thaipublica.org/2020/04/19-economists-with-covid-19-01/>.

OECD. 2020. "OECD Economic Outlook: The world economy on a tightrope." Accessed 16 July. <http://www.oecd.org/economic-outlook/june-2020/>.

Office of National Higher Education Science Research and Innovation Policy Council (NXPO). 2020. "Measures of higher education, science, research and innovation for national economic and social restructuring." Accessed 12 July. https://www.nxpo.or.th/th/wp-content/uploads/2020/06/V013_Covid_recovery-12062020-1.pdf.

Our World in Data. 2020. "Statistic and Research: Coronavirus (COVID-19) Testing." Accessed 8 September. <https://www.ourworldindata.org/coronavirus-testing>.

Suntronwong, Nungruthai, Ilada Thongpan, Watchaporn Chuchaona, Fajar Budi Lestari, Preeyaporn Vichaiwattana, Ritthideach Yorsaeng, Sirapat Pasittungkul, Rungrueng Kitphati, Sompong Vongpunsawad, and Yong Poovorawan. 2020. "Impact of COVID-19 public health interventions on influenza incidence in Thailand." *Pathogens and Global Health* 114 (5):225-7. doi: 10.1080/20477724.2020.1777803.

Tan, Shining. 2020. "China's novel health tracker: Green on public health, red on data surveillance." Accessed 19 July. <https://www.csis.org/blogs/trustee-china-hand/chinas-novel-health-tracker-green-public-health-red-data-surveillance>.

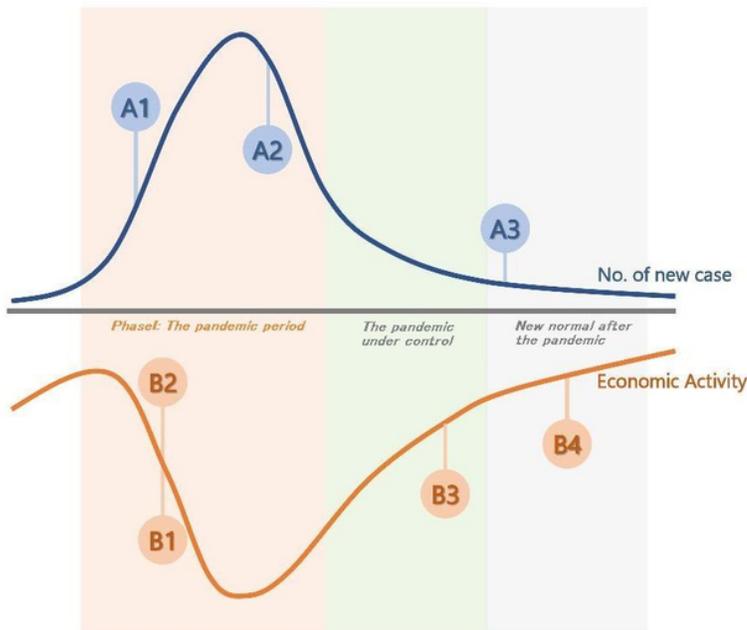
ThaiPBS world. 2020. "Report says Thailand's suicide rate increasing during coronavirus pandemic." Accessed 15 July. <https://www.thaipbsworld.com/report-says-thailands-suicide-rate-increasing-during-coronavirus-pandemic/>.

Thai Health Promotion Foundation. 2020. "Thailand Ranks First in the Global COVID-19 Recovery Index." Accessed 15 July. <https://en.thaihealth.or.th/NEWS/312//>.

Truog, Robert. D., Christine Mitchell, and George Q. Daley. 2020. "The Toughest Triage – Allocating Ventilators in a Pandemic." *New England Journal of Medicine* 382(21): 1973-1975.

WHO. 2020. "Protecting nature protects health – lessons for the future from COVID-19." Accessed 10 August. <https://www.euro.who.int/en/health-topics/environment-and-health/pages/news/news/2020/6/protecting-nature-protects-health-lessons-for-the-future-from-covid-19>.

Figures



A : Public Health Measures

- A1 : Limit the Covid-19 spread and reduce the number of newly infected people
- A2 : Control the situation to normal
- A3 : Prevent the second wave and provide vaccine sufficiently

B Economic and Financial Measures

- B1 : Ensuring that the financial system works properly
And help the business to survive
- B2 : Heal the vulnerable people affected economically
- B3 : Stimulate the economy and employment
- B4 : Restructure the economy

Figure 1

Policy Framework for coping with Covid-19. Reproduced with permission from Nakornthab, 2020