

Review Article

COVID-19 Situation in Thailand

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Abstract: The number of COVID-19 cases continues to surge globally, with millions of people affected and many innocent lives lost. Thailand reported the first confirmed COVID-19 case on 13th January 2020. Among the three waves of the COVID-19 pandemic in Thailand, the third wave is more severe than the previous waves, indicating a lack of strong public health interventions. The health authorities in Thailand are constantly promoting the COVID-19 vaccination plan to achieve herd immunity against the coronavirus. Facing economic pressure, the government decided to open up border tourism from 1st November 2021 and continue monitoring the COVID-19 transmission among the community. The war against COVID-19 is still ongoing. In order to win this challenging war, unified collaborations between public, governmental agencies, and industries are essential for long-term success for all humanity.

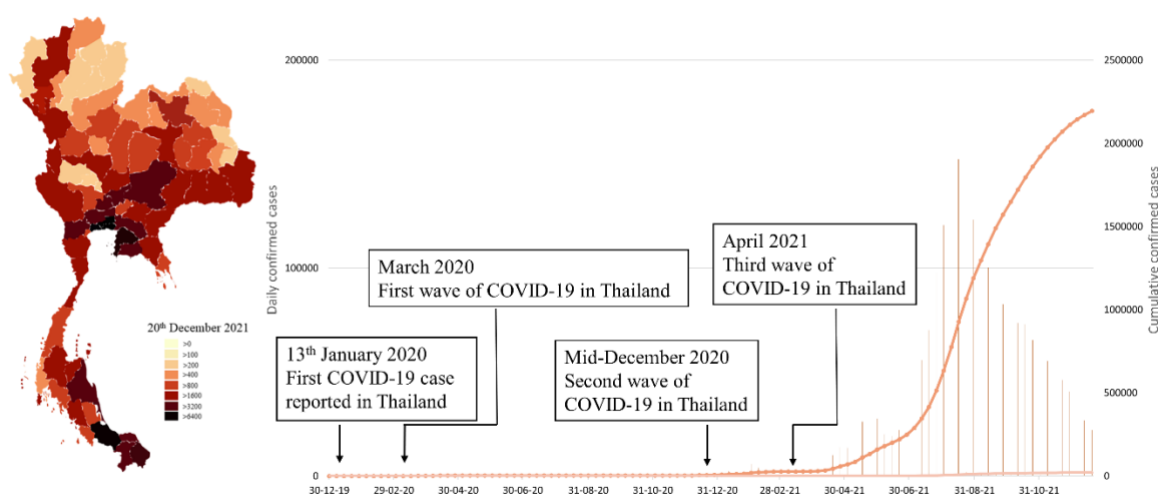
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1. Introduction

Coronavirus disease 2019 (COVID-19) is caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2)^[1]. Thailand reported its first confirmed COVID-19 case in January 2020 (Figure 1). By deploying multiple strategies, including community-based contact tracing, isolation, quarantine, and border control, Thailand's COVID-19 pandemic was brought under control during December 2020^[2]. By mid-2021, a new wave of COVID-19 outbreaks began to sweep across the region, which further pushed the highest daily records of COVID-19 cases in Southeast Asia, with most associated with a more "aggressive" variant, the Delta variant (B.1.617.2)^[3]. Despite the global effort in raising awareness for vaccination against SARS-CoV-2, the unrelenting situation continues to progress as another new variant emerges - Omicron or SARS-CoV-2 (B.1.1.529), as reported to the World Health Organization (WHO) on 24th November 2021. In fact, this new variant was

reported from clinical specimens in two countries in the South Africa continent on separate occasions - in Botswana on 11th November 2021 and in South Africa on 14th November 2021. While there is still a lack of understanding regarding the virulence and transmissibility of the Omicron variant, Thailand announced the country's first case of the Omicron variant of the coronavirus, involving a traveler from Spain on 6th December 2021. From January 2020 to October 2021, Thailand experienced three waves of COVID-19 pandemic within 22 months. The highest daily new cases numbered 188 in late March 2020^[4]. By mid-December 2020, the entire coronavirus case was 4246^[5]. The accumulative COVID-19 case reached 2,156,587 around mid-December 2021^[6]. The current writing aims to summarize the situation of different stages during the COVID-19 pandemic in Thailand, along with measurements that have been taken to curb the spread of this notorious coronavirus.

Confirmed COVID-19 cases as of 20th December 2021



Source: <https://data.go.th/en/dataset/covid-19-daily> & <https://covid19.who.int/region/searo/country/th>

Figure 1. Illustrations of confirmed COVID-19 cases and deaths. The stacked bar graph shows the daily confirmed cases and deaths since the first case reported in Thailand while the line graph shows the cumulative confirmed cases based on WHO reports^[7]. A heat map shows the distribution of confirmed cases across Thailand as of 20th December 2021^[8].

2. Under the Spotlight: Situation in Thailand

Within two weeks after the WHO branch in China received the notification of SARS-CoV-2, Thailand was the first country to report a COVID-19 case outside of China on 13th January 2020. Prior to the increase in domestic infections in mid-March 2020, the number of COVID-19 cases in the country remained relatively low. Based on the reports from the local government, the critical event that contributed to the spike was a boxing match on 6th March 2020, despite a ban on large gatherings that was put in place days before^[9]. The number of

new infections continued to increase to over a hundred per day following the event. A total of 143 COVID-19 cases were directly linked to the boxing match and hastened the community spread of the virus to other provinces, with some attendees traveling home or to business trips afterward^[10]. Compared to many countries, Thailand seems to have controlled the initial pandemic relatively quickly, and the virus has been well controlled for most of 2020^[11]. According to the WHO situation report for Thailand dated as 7th February 2020, the country had sturdy capacities for case detection, danger assessment, case investigation, laboratory diagnosis, scientific management, contamination prevention, and control, as well as danger conversation^[12]. However, many new cases in a wholesale shrimp market were reported in December 2020, with daily new case numbers as high as 7,284, which marked a sharp increase compared with March 2020. The government took intervention measures and strengthened social distancing policies to control the COVID-19 pandemic effectively^[13]. In March 2020, the number of daily injections in the community decreased and stabilized at around 1,000 people per day. This was marked as the first wave of COVID-19 in Thailand.

Fast-forwarding to 2021, the cases involving Thonglor nightlife venues developed rapidly in Bangkok in April^[14]. Fearing a further economic downturn, the Thai government did not take the same severe measures as the subsequent outbreak. Instead of a total blockade, the government allowed inter-provincial travel during the Thai New Year holiday in April 2021. Additionally, the strain Delta variant (B.1.617.2) was detected and found to spread much faster than other variants, leading to severe illnesses or even death. Thailand subsequently reported more outbreaks in crowded, closed areas (such as institutions, prisons, markets, shopping centers, and communities)^[15]. Superspreading incidents were found in entertainment venues, pubs, bars, karaoke halls, and gambling establishments in different regions. The number of cases rose to more than the sum of the first and second waves. Up to 17th November 2021, 2,037,224 confirmed COVID-19 cases and 20,199 deaths had been recorded in Thailand^[16].

3. Managing COVID-19 Situation in Thailand

Due to the highly contagious nature of COVID-19, delayed intervention may lead to rapid spread. Singapore learned from its encounter with SARS in 2003, formulated a graded disease outbreak response system, and adopted timely and coordinated response measures to this COVID-19 outbreak^[17]. Despite the shortcomings of a highly dense population and a large urban population due to globalization^[18,19], a series of public health intervention measures adopted by Singapore in the early stage effectively slowed down the spread of the pandemic, which can be reflected in its relatively flat epidemic. On the other hand, in Thailand, the government adopted a series of strict measures to control the spread during the

first wave of COVID-19, including site closures, travel restrictions, entry point screening, quarantine, contact tracking, and comprehensive infection prevention and control measures. These actions were very effective, and there were relatively few cases in Thailand until the second wave of more giant waves in mid-December 2020^[20]. Early detection strategies can cover up the actual severity of the pandemic and minimize hidden dangers for outbreaks in the community environment. Therefore, based on the lessons learned in the early stages of the pandemic, travel restrictions (including border controls) are still a necessary strategy to deal with the emerging SARS-CoV-2 variant. However, multiple studies have confirmed the effectiveness of current vaccines against specific variants^[21,22]. The grim reality is that when the pandemic began, Thailand imposed a blockade in its capital Bangkok. Unfortunately, the policy was designed to reduce new infections, but the virus continued to spread across the country. The approach ignored the dynamic interaction between people's motivation to slow the spread of COVID-19 and allow their economic ability to survive. In order to control the COVID-19 pandemic on a global scale, it is imperative to call for epidemiologically informed, evidence-based public health response measures (including surveillance, outbreak investigation, training, and intervention standards) while reducing and mitigating the spread of public facilities measures^[23-24]. These must be integrated into a comprehensive, resilient, and publicly funded health system to provide universal health coverage and prepare for the next pandemic^[25,26].

In response to the large-scale movement of people across the country, the Ministry of Public Health in Thailand provides online courses, and local health officials offer face-to-face training for volunteers^[27]. The training content includes basic knowledge of COVID-19, educating people on how to stay safe, identifying and monitoring high-risk community members (the elderly or people with chronic diseases such as cardiovascular disease, diabetes, or hypertension), and data collection and reporting^[28]. Although volunteers can lodge records in paper form (or in-person), the Ministry of Public Health strongly encourages specially designed smartphones or Internet applications to report data online (via phone applications).

The COVID-19 pandemic has caused a dilemma between economic stimulus and public health control^[29]. Before the COVID-19 pandemic, tourism accounted for 22% of Thailand's GDP, and in 2018, one-sixth of Thailand's jobs were in tourism^[30]. The economic costs of Thailand's border and business closures and strict restrictions are enormous. Companies in the service and tourism industries have been hit hardest. Therefore, Thailand has developed a COVID-19 vaccination plan for individuals with severe symptoms and the general population in outbreak areas to improve the community's immunity. The Thai

government aims to achieve herd immunity against COVID-19 through vaccination, and the goal is to reach 70% of the population by the end of 2021^[31]. In addition, Thailand has permitted vaccinated people with at least one dose to engage in socio-economic activities such as public gatherings and public transport^[32]. The vaccination program's rollout is considered a great success, with a drop in the number of new cases^[33]. Thailand opened up Phuket's tourism industry on 1st July 2021. Despite the third wave of coronavirus outbreaks in Thailand, economic pressures urged the restoration of its tourism industry^[34]. As a matter of fact, Thailand has announced to welcome fully vaccinated foreign tourists, including returning Thais and foreign residents, who enter the country by plane from an approved country/region without quarantine requirements from 1st November 2021, by the Tourism Authority of Thailand (TAT)^[35].

4. Going Beyond: What is Known and Wait in the Future

Thailand's Ministry of Public Health, on 6th December 2021, announced the country's first case of the Omicron variant related to a U.S. citizen (visiting from Spain) who entered Thailand nearly a week ago. The 35-year-old American who received vaccination in June of the same year was first tested for the virus on 30th November 2021 and subsequently received a positive result the following day^[36]. Since 1st November 2021, Thailand became one of the first Southeast Asian countries to reopen its borders to fully vaccinated tourists, allowing arrivals by air from 63 countries, including the United States, China, India, Southeast Asia, and much of Europe. Fully vaccinated tourists from these regions should undergo PCR tests upon arrival and stay at an approved hotel for one night while waiting for the results^[37].

The Prime Minister of Thailand responded quickly on this matter with advice to the public not to panic over the emergence of the Omicron COVID-19 variant in the country^[38]. The Prime Minister also urged the unvaccinated individuals to get the vaccination as soon as possible. Meanwhile, Thailand's Tourism Minister announced that there would be no going back for the country's reopening plans, despite the emergence of the Omicron variant^[39]. In reality, about one-fifth of Thailand's economy depends on tourism. Before the pandemic, Thailand was one of the world's top tourist destinations, drawing nearly 40 million visitors in 2019. The government projects that the country will complete the 110 – 120 million doses target to the entire population by December 2021^[40]. As of 19th December 2021, 934 Omicron cases had been confirmed in Thailand^[41].

At the time of writing, the WHO recommended that countries continue to implement effective public health measures to reduce COVID-19 circulation overall. In addition, inequities in access to COVID-19 vaccines should be addressed urgently to ensure that vulnerable groups everywhere, including health workers and older persons, receive their first

and second doses, alongside equitable access to treatment and diagnostics^[42]. By the same token, with the discovery of the COVID-19 variant with highly transmissibility rate, Omicron further emphasizes the need to develop viral detection methods following the discussion on the ability of molecular kits to detect this specific variant accurately^[43]. The war against COVID-19 is neither lost nor ending; there is still hope in curbing its spread with tight collaborations between public, governmental agencies, and industries. This is the time where we need exceptional unity to lead and spearhead unabashed joint efforts to forge a resilient future as we push for long-term success for all humanity.

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