



PARLIAMENTARY CENTRE OF ASIA
Strengthening Parliamentary Capacity

Briefing Note

Health Impacts of COVID-19 in ASEAN

Date: 05 September 2023

Researchers: Mr KEM Sothorn

Notice of Disclaimer

The Parliamentary Center of Asia (PCAsia) is an independent parliamentary support institution for the client Parliaments which, upon request of the parliamentarians and the parliamentary commissions and their General Secretariats offers a wide range of trainings and research publications on current and emerging key issues, legislation and major public policy topics. The information in this research product is likely to be relevant to parliamentary and constituency work but does not purport to represent or reflect the views of the Parliamentary Center of Asia, their client Parliaments or any of its members.

The contents of this Briefing Note, current at the date of publication, are for reference and information purposes only. This publication is not designed to provide legal or policy advice, and do not necessarily deal with every important topic or aspect of the issues it considers.

The contents of this Briefing Note are covered by applicable Cambodian laws and international copyright agreements. Permission to reproduce in whole or in part or otherwise use the content on this website may be sought from the appropriate source.

Health Impacts of COVID-19 in ASEAN

1. Introduction

The first case of COVID-19 was detected in December 2019 in Wuhan, China [1]. This represented the third outbreak of a human coronavirus, following SARS (Severe Acute Respiratory Syndrome) and MERS (Middle East Respiratory Syndrome) [2]. The virus spread quickly to 123 countries worldwide, with the first death from the infection reported on 9 January 2020. By August 2023, there were 693,204,395 cases reported worldwide and the number of deaths reached 6,907,547, of which 368,879 were in Southeast Asia [3]. The number of total deaths could be higher if it includes deaths that were undetected, a result of limited testing capacities [4]. Since its outbreak, COVID-19 has caused catastrophic damage to public health, and disruption of social and economic development [2]. In response, countries across the world undertook different approaches including lockdowns, social distancing, mass testing, and other policy interventions. [5, 6]. Vaccination has been the core intervention to reduce transmission and severity, and to ease the pressure on healthcare systems in the region from being overwhelmed [7].

Using the latest available data/statistics, this article looks specifically into the current situation of the COVID-19 pandemic in the Southeast Asian context related to (1) Cumulative confirmed cases, (2) Number of deaths and recovery, and (3) Vaccination Status by country. With available literature and published research documents, the impact of the pandemic on public health is documented followed by a brief review of policy responses undertaken by different ASEAN countries.

2. Current Situation of COVID-19 in ASEAN

2.1. Cumulative confirmed cases

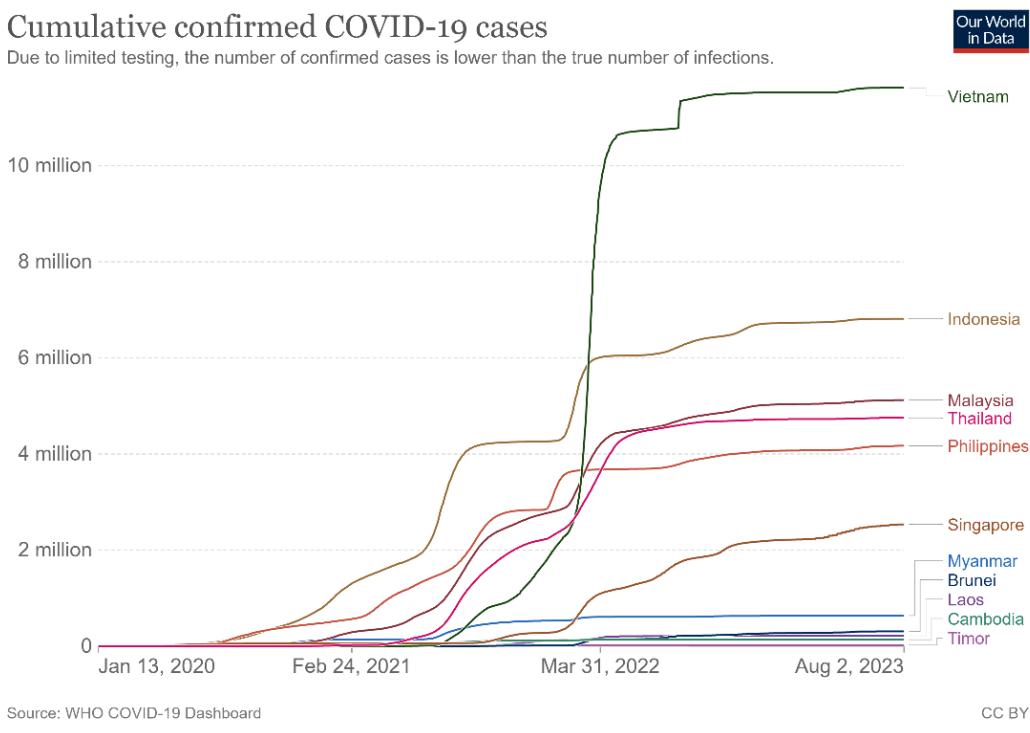
COVID-19 reached Southeast Asia in January 2020, when Thailand identified its first positive case, then the Philippines, Singapore, Cambodia, Vietnam, and Malaysia. At the time of writing, the total cumulative cases for the whole region was 35,910,444 with 95,885 active cases [3]. There are four common variants found: (1) Alpha, (2) Beta and (3) Delta, and later (4) Omicron [8].

The region was hit by three waves of infections. The first wave was in January 2020 with an average 15,000 daily transmission cases. In mid-2021, the spread of the Delta variant triggered the second wave of virus infections with an estimated 100,000 cases per day. The third wave occurred in February 2022 with infections largely caused by cases of the Omicron variant. The daily Omicron cases almost doubled that of previous strains, nonetheless the fatality rate was four to six times lower. This is mainly because of the high vaccination rate achieved by each country [9].

The cumulative confirmed cases of COVID-19 by country through August 2023 is shown in Figure 1. Vietnam recorded a total of 11,622,204 cases, the highest in the region, followed by Indonesia with 6,813,095. These two countries experience a surge in the number of cases during the third wave. Cases in Thailand and Malaysia were each around 5 million which is slightly more than the Philippines and the 2.53 million cases in Singapore. Cambodia found 138,937 cases, double those reported in Lao. Brunei and Timor-Leste recorded 310,105 and 23,460 cases respectively. From the same data set, the ratio of cases per million population in Singapore was almost 450 thousand, followed by Brunei with approximately 700

thousand. Cases per million are between 25 to 35 thousand for the Philippines, Lao and Indonesia. The lowest ratio was around 8,000/1M in Cambodia.

Figure 1. Cumulative confirmed COVID-19 cases



Source: <https://ourworldindata.org/covid-vaccinations>

2.2. Total deaths and recovery

In 2023, the COVID-19 case fatality rate (CFR) in the region was 1.1%, dropping from 3.3% in 2021. This is significantly lower compared to the global CFR at 2.1%. Table 1 provides the data indicating the status of COVID-19 deaths, fatality rate and recovery in Southeast Asia.

Table 1: Status of COVID-19 deaths, fatality rate and recovery

Country	Total Deaths	Case fatality rate	Total recovered	Deaths/1M pop	Population
Myanmar	19,494	3.0%	619,908	353	55,227,143
Indonesia	161,916	2.4%	6,646,293	580	279,134,505
Cambodia	3,056	2.2%	135,882	178	17,168,639
Philippines	66,643	1.6%	4,103,828	592	112,508,994
Malaysia	37,165	0.7%	5,070,750	1,120	33,181,072
Thailand	34,437	0.7%	4,692,636	491	70,078,203
Timor-Leste	138	0.6%	23,102	101	1,369,429
Vietnam	43,206	0.4%	10,640,372	437	98,953,541
Laos	758	0.3%	N/A	101	7,481,023
Singapore	1,841	0.1%	2,149,583	310	5,943,546
Brunei	225	0.1%	243,601	505	445,431

Source: <https://ourworldindata.org/covid-cases>

For all countries, a sharp increase in number of deaths occurred between February 2021 and the first few months of 2022. As of August 2023, Indonesia has recorded a total of 161,916 deaths (CFR 2.4%), the highest in the region, compared to the Philippines which suffered 66,643 deaths (CFR 1.6%) and Vietnam, with 43,206 deaths (CFR 0.4%). The decision to lift lockdown to reduce economic distress likely contributed to an increased number of deaths [9]. Higher mortality rates also related to regional disparities in each country's health system plus limited mass testing [10]. This accounts for the situation in Myanmar where CFR stood at 3%. Total deaths in Cambodia were 3,056 (CFR 2.2%). Malaysia and Thailand share the same CFR value of 0.7% with 34,437 and 37,165 deaths, respectively. Singapore and Brunei have the lowest CFR (0.1), followed by Laos (0.3). In many cases, countries with a low CFR tended to robustly implement policy measure including mass testing, quarantine, contact tracing, lockdowns, and information sharing, among others. [10].

3. Health Impact of COVID-19 and Responses

3.1. Impact on health systems

COVID-19 has had a devastating impact on national healthcare systems, even in countries with advanced medical facilities and capabilities [13]. Based on the Global Health Index (GHI), Thailand was classified as one of the most prepared countries in the region to respond to the pandemic. Countries that were classified as less prepared to appropriately react were Laos, Cambodia, Malaysia, Singapore, Indonesia, Myanmar and the Philippines [23]. Overall, Southeast Asia was not prepared enough to respond to this health emergency.

With the rapid transmission overwhelming healthcare systems with an influx of patients and soaring demand for health facilities and equipment, the situation was more acute for many Southeast Asian nations where healthcare systems are comparatively weak, particularly Myanmar, Cambodia, Indonesia, Lao PDR, the Philippines and Timor-Leste [14]. There was a sharp increase in demand for personal protective equipment (PPE), the absence of which made healthcare workers more vulnerable to the virus [15]. In the same way, vaccination campaigns were frequently held back by a shortage of available vaccines and other medical resources [8].

3.2. Impacts on people

The pandemic has adversely impacted the nutritional status of people living in poverty, especially informal workers. Lower incomes forced people to reduce food expenditure and consumption, causing nutritional deficiency [14, 16]. The Food and Agriculture Organization of the United Nations (FAO) estimated that around 61 million people in Southeast Asia were malnourished and this number likely increased in the face of pandemic [17]. A survey by the Asian Development Bank Institute (ADBI) in 2021 in eight ASEAN countries¹ confirmed that 80% of household with financial difficulties cut-down their consumption expenditure [18]. This contributed to malnutrition, which weakens the human immune system causing them to be at higher risk when contracting COVID-19 [16].

The pandemic made it more difficult for vulnerable groups to access proper health services or receive adequate social protection. Those groups have generally included (1) migrant workers, (2) refugees, (3)

¹ Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Thailand and Vietnam.

people living in poverty, (4) people with disabilities and (5) older persons. Non-nationals, especially unregistered migrant workers, can be at particular risk of exclusion from health services [19]. During the pandemic, morbidity and mortality among infants, young children, and pregnant women increased due to the interruption in essential health services. Similarly, the health crisis further marginalized disabled people by stimulating more demand for essential healthcare services [20].

During the course of COVID-19, fewer women than men in the Philippines, for example, received proper information to help them handle the pandemic. Significant drops in savings and earnings were also reported especially among those women working in manufacturing, tourism, retail, the service industry and informal sectors. In contrast, there was a significant increase in unpaid care work among women due to the need to look after children and elderly parents. Economic difficulty and social stress also exacerbated incidents of domestic violence across the region [14].

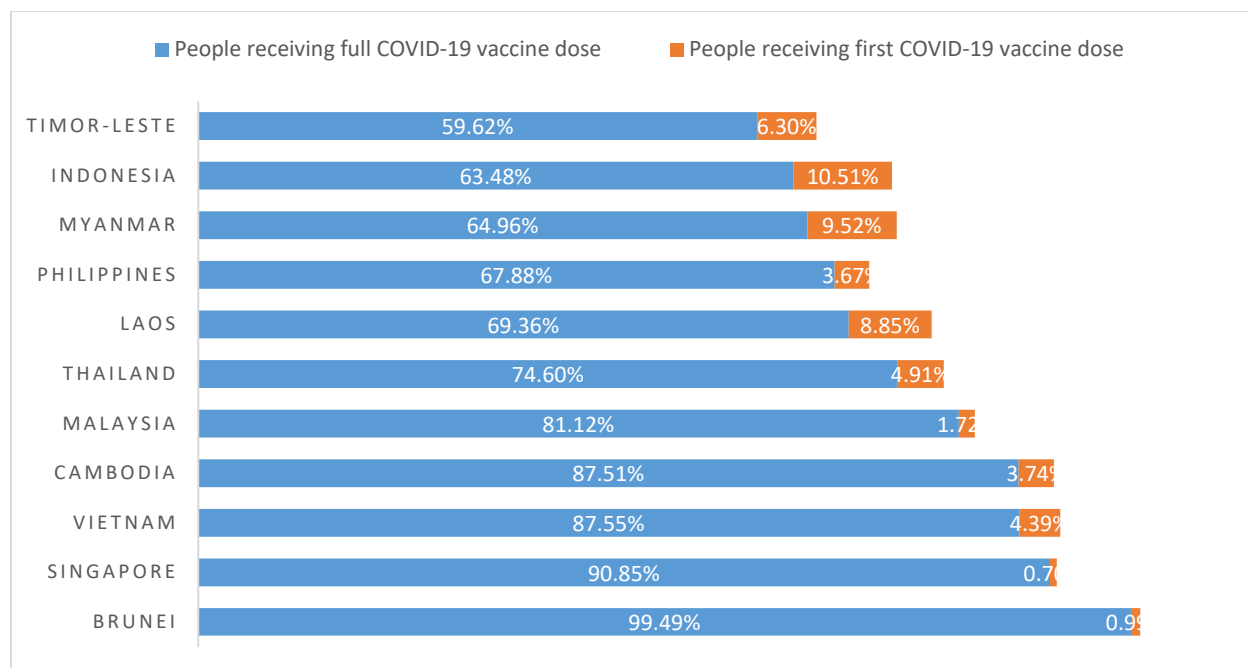
3.3. Policy Responses

Key responses to the COVID-19 pandemic have been made at both regional and national levels. Regional responses include: (1) a “Collective Response” to the outbreak of COVID-19; (2) joint statements on Cooperation against the outbreak, and (3) a series of ASEAN sectoral meetings to discuss regional cooperation in pandemic responses [2, 20, 21, 22]. At the national level, ASEAN countries applied different policy responses in accordance with their socioeconomic, security and political situations, which helps explain why the policy reactions were so varied between countries [23]. Malaysia, Singapore and the Philippines, for example, strictly implemented national lockdowns [22]. Thailand and Indonesia chose partial lockdown measures. Cambodia, Vietnam and Indonesia prioritised adherence to social distancing.

3.4 Vaccination status

Rates of vaccinations vary by countries (Figure 2) and have been driven by a number of factors: (1) shortage of vaccines and medical resources, (2) available funds and different costs of vaccines, (3) population size, (4) uneven distribution of vaccines, (5) supply chain constraints and (5) vaccine hesitancy [2, 8, 11]. Given the simultaneous demand for vaccines across the world, low and middle income countries including those in Southeast Asia were often last in the line to receive vaccines [8]. Given the shortage, countries prioritised frontline workers, followed by phased distribution by age. Vaccination campaigns kicked off in March 2021 in several ASEAN countries [2].

Figure 2: Total number of people who received full and first vaccine doses, divided by the total population of the country



Source: <https://ourworldindata.org/covid-vaccinations>

By August 2023, the total vaccination rate versus total population in Brunei exceeded 100%, reflecting their vaccine distribution to the foreigners/expats living in the country and their small population. Singapore fully vaccinated around 91% of people, among which just 0.7% received only the first dose. Vietnam is a third country that led the field with a total vaccination rate of up to 92%.

A country's economic development does not necessarily determine vaccination success, but rather government policy and timely interventions. This is reflected in the case of Cambodia, where the country successfully inoculated more than 90% of its population. Despite their much larger economies, people that received the full vaccination dose in Thailand and Malaysia are 74.6% and 81.12%, respectively, where political issues in both countries affected their response performance [2]. In Myanmar the country's full vaccination rate is a bit less than 65% amidst the humanitarian crisis driven by the military coup [12]. Indonesia and the Philippines have similar vaccination rates at around 70% followed by Timor-Leste at less than 65%. People's attitude toward vaccines also impacts the rate of vaccination of a country. A study in five countries: Indonesia, Malaysia, Philippines, Singapore and Thailand found that 7 to 16% of the respondents would not seek vaccination mainly because they fear the potential side effects [11].

Southeast Asian countries obtained vaccines through various procurement channels including multi or bilateral COVID-19 diplomacy, and own purchase [12]. This patchwork approach explains the wide variety of vaccines used in some countries (Table 2). Brunei and Singapore used the fewest type of vaccines compared to others because most were purchased. A majority of ASEAN Member State also qualified under the COVAX arrangement. These countries were able to access a wider variety of vaccines including Pfizer/BioNTech, Moderna, Oxford/AstraZeneca, Jassen (Johnson & Johnson), Covishield, Sputnik V, Sinopharm (Beijing), and Sinovac, etc. Qualifying countries also obtained more vaccines through own purchase and donations [7, 8]. At the time of writing, Vietnam, Indonesia, and Thailand are currently developing vaccines to further safeguard their populations [8].

Table 2. Access to vaccines by country

Country	Available Vaccines
Brunei	Oxford/AstraZeneca, Sinopharm/Beijing
Singapore	Moderna, Pfizer/BioNTech, Sinovac
Vietnam	Moderna, Oxford/AstraZeneca, Pfizer/BioNTech, Sinopharm/Beijing, Sputnik V
Cambodia	Johnson&Johnson, Oxford/AstraZeneca, Sinopharm/Beijing, Sinovac
Malaysia	CanSino, Oxford/AstraZeneca, Pfizer/BioNTech, Sinovac
Thailand	Oxford/AstraZeneca, Pfizer/BioNTech, Sinopharm/Beijing, Sinovac
Laos	Johnson&Johnson, Oxford/AstraZeneca, Pfizer/BioNTech, Sinopharm/Beijing, Sinovac, Sputnik V
Philippines	Johnson&Johnson, Moderna, Oxford/AstraZeneca, Pfizer/BioNTech, Sinovac, Sputnik V
Myanmar	Oxford/AstraZeneca, Sinopharm/Beijing,
Indonesia	Moderna, Oxford/AstraZeneca, Pfizer/BioNTech, Sinopharm/Beijing, Sinovac
Timor-Leste	Oxford/AstraZeneca, Sinovac

Source: Reconstructed from [8]

References:

1. Baloch, S., Baloch, M. A., Zheng, T., & Pei, X. (2020). The coronavirus disease 2019 (COVID-19) pandemic. *The Tohoku journal of experimental medicine*, 250(4), pp.271-278.
2. Thuzar, M. (2021). ASEAN's COVID-19 Response: Policies and Perceptions. *Perspectives Asia*, (10), 13.
3. Worldometer. (2023). *Coronavirus cases 2023*. Available at <https://www.worldometers.info/coronavirus/#countries> [Accessed 8 Aug. 2023]
4. Khairulbahri, M. (2021). Lessons learned from three Southeast Asian countries during the COVID-19 pandemic. *Journal of Policy Modeling*, 43(6), pp.1354-1364.
5. Cheng, C., Barceló, J., Hartnett, A. S., Kubinec, R., & Messerschmidt, L. (2020). COVID-19 government response event dataset (CoronaNet v. 1.0). *Nature human behavior*, 4(7), pp. 756-768.
6. Koch, M., & Park, S. (2022). Do government responses impact the relationship between age, gender and psychological distress during the COVID-19 pandemic? A comparison across 27 European countries. *Social Science & Medicine*, 292, pp. 114583.
7. Amul, G. G., Ang, M., Kraybill, D., Ong, S. E., & Yoong, J. (2022). Responses to COVID-19 in Southeast Asia: diverse paths and ongoing challenges. *Asian Economic Policy Review*, 17(1), pp. 90-110.
8. Chu, D. T., Vu Ngoc, S. M., Vu Thi, H., Nguyen Thi, Y. V., Ho, T. T., Hoang, V. T., ... & Al-Tawfiq, J. A. (2022). COVID-19 in Southeast Asia: current status and perspectives. *Bioengineered*, 13(2), pp. 3797-3809.
9. Fraser, D (2022). *The Pandemic's Health Impact on Southeast Asia*. Asia Society Policy Institute, Available at: <https://southeastasiacovid.asiasociety.org/the-covid-19-pandemics-health-impact-on-southeast-asia/> [Accessed 9 Aug. 2023]
10. Puno, G. R., Puno, R. C. C., & Maghuyop, I. V. (2021). COVID-19 case fatality rates across Southeast Asian countries (SEA): a preliminary estimate using a simple linear regression model. *Journal of Health Research*, 35(3), pp. 286-294.
11. Aspinall, E., Curato, N., Fossati, D., Warburton, E., & Weiss, M. L. (2021). *COVID-19 in Southeast Asia: Public health, social impacts, and political attitudes: Evidence from a survey of Indonesia, Malaysia, the Philippines, Singapore and Thailand*. Australian National University, pp. 13-22.

12. Yean, T. S., & Yi, A. K. J. (2022). Determinants of COVID-19 Vaccine Rollouts in Southeast Asia. ISEAS Yusof Ishak Institute, 3.
13. Rathnayake, D., Clarke, M., & Jayasinghe, V. I. (2021). Health system performance and health system preparedness for the post-pandemic impact of COVID-19: A review. *International Journal of Healthcare Management*, 14(1), pp. 250-254.
14. United Nation. (2020). Policy brief: the impact of COVID-19 on South-East Asia. United Nation. Available at: <https://unsdg.un.org/resources/policy-brief-impact-covid-19-south-east-asia> [Accessed 11 Aug. 2023]
15. Suvannaphakdy, S. (2020). COVID-19: Who supplies protective equipment in ASEAN?, Jakarta Post, Available at: <https://www.thejakartapost.com/academia/2020/05/04/covid-19-who-supplies-protective-equipment-in-asean.html> [Accessed 11 Aug. 2023]
16. World Health Organization. (2021). *Asia and the Pacific Regional Overview of Food Security and Nutrition 2020: Maternal and child diets at the heart of improving nutrition* (Vol. 2020). Food & Agriculture Organization, pp. 52-65.
17. World Health Organization. (2019). *The state of food security and nutrition in the world 2019: safeguarding against economic slowdowns and downturns* (Vol. 2019). Food & Agriculture Organization, pp. 1-46.
18. Morgan, P., & Trinh, L. Q. (2021). *Impacts of COVID-19 on households in ASEAN countries and their implications for human capital development*. ADBI Working Paper 1226. Tokyo: Asian Development Bank Institute. Available at: <https://www.adb.org/publications/impacts-covid-19-households-asean-countries> [Accessed 11 Aug. 2023]
19. Moroz, H., Shrestha, M., & Testaverde, M. (2020). *Potential responses to the COVID-19 outbreak in support of migrant workers*. World Bank. Available at: <https://documents1.worldbank.org/curated/en/428451587390154689/pdf/Potential-Responses-to-the-COVID-19-Outbreak-in-Support-of-Migrant-Workers-June-19-2020.pdf> [Accessed 13 Aug. 2023]
20. ASEAN Secretariat (2020). *ASEAN rapid assessment: the impact of COVID-19 on livelihoods across ASEAN*. ASEAN Secretariat. Available at: <https://asean.org/book/asean-rapid-assessment-the-impact-of-covid-19-on-livelihoods-across-asean/> [Accessed 13 Aug. 2023]
21. Caballero, M., (2021). *COVID-19 in Southeast Asia: Regional pandemic preparedness matters*, Brookings Institution. Brookings, Available at: <https://www.brookings.edu/articles/covid-19-in-southeast-asia-regional-pandemic-preparedness-matters/> [Accessed 13 Aug. 2023]
22. Arnakim, L. Y., & Kibtiah, T. M. (202). Response of ASEAN member states to the spread of COVID-19 in Southeast Asia. In IOP Conference Series: Earth and Environmental Science, 729 (1), pp. 3-6.

23. Purnomo, E. P., Agustiyara, Nurmandi, A., Dewi, A., Rosa, E. M., Bayu, A. H., & Erviana, R. (2022). ASEAN Policy responses to COVID-19 pandemic: Adaptation and experimentation policy: A study of ASEAN countries policy volatility for COVID-19 pandemic. *Sage Open*, 12(1).