

WHEN CRISIS MEETS PREPARATION AND DISCIPLINE: SINGAPORE’S SUCCESSFUL RESPONSE TO COVID-19

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I. INTRODUCTION

The results speak for themselves: nine months after the World Health Organization (“WHO”) announced that COVID-19 was a Public Health Emergency of International Concern, Singapore successfully contained the spread of COVID-19 within its borders. As of June 2021, Singapore has had approximately sixty-two thousand cases, of which there have been thirty three fatalities. Since at least October 2020, there have been zero- or single-digit daily cases. Schools reopened in July 2020, and social and economic activity – although subject to social distancing and contact tracing rules – resumed operating under the “new normal” state.

What explains Singapore’s unbelievably successful response to this pandemic? In this paper, we identify and describe the following three main factors that have played key roles: pandemic preparedness, an assertive, public-health guided response to COVID-19, and Singapore’s unique political and social system.

As we shall layout below, pandemic preparedness has been key. Following the severe acute respiratory syndrome (“SARS”) pandemic in 2003, Singapore made significant investments in pandemic preparedness and committed to complying with the WHO International Health Regulations (IHR). Thus, when COVID-19 broke out, Singapore already had in place a developed public health and policy system to detect and respond to disease outbreaks.

Further, Singapore’s government, guided by science and public health, has taken an assertive and firm approach, applying the rules of the pandemic playbook. Among other measures, the government has undertaken tight border and incoming travelers’ controls to prevent the infiltration of infected people. It has also carried out large-scale testing, rapidly identified and

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isolated infected cases and their contacts, and has mandated mask wearing and social distancing. These measures have been strictly enforced and have been coupled with a transparent public communication model that has garnered broad public support. That being said, Singapore's use of surveillance technology and its management of migrant dormitories have given rise to concerns over privacy and the rights of vulnerable populations, respectively.

Singapore's effective implementation of these measures has been made possible by the country's unique sociopolitical system, which is characterized by high levels of unity, coordination, pragmatism, and compliance.

The purpose of this Essay is to describe and better understand Singapore's public health response to COVID-19. We first describe the political and social context (Section 2), and we then describe the state of Singapore's pandemic preparedness before COVID-19 (Section 3). Thereafter (Section 4), we describe Singapore's policy response to COVID-19. Section 5 concludes.

II. THE POLITICAL AND SOCIAL CONTEXT

Before delving into the specific public health measures applied in Singapore, it is important to understand that Singapore's coordinated and effective response has been made possible by the country's unique sociopolitical system. This system has played a key and decisive role in the effective implementation of and compliance with public health measures. Indeed, the WHO Director-General has lauded Singapore for its 'all-of-society, all-of-government approach.'¹

Since Singapore's independence in 1965, the People's Action Party ("PAP") has continuously held a supermajority or in Parliament. An emphasis on meritocracy and pragmatism ingrained in the culture of the political party and of the civil service has allowed for real-time technocratic decision-making, expedient implementation, and strict enforcement of government health policies. There are also considerably fewer contradictory views or misinformation circulating on the status of the pandemic owing to

¹ Joyce Teo, *Coronavirus: WHO praises Singapore's containment of Covid-19 Outbreak*, THE STRAITS TIMES (Mar. 10, 2020), <https://www.straitstimes.com/singapore/health/coronavirus-who-praises-singapores-containment-of-covid-19-outbreak>; *see* World Health Organization (WHO) (@WHO), TWITTER (Feb. 18, 2020, 10:00 AM), <https://twitter.com/WHO/status/1229797831675957248>.

Singapore's regulations on freedom of speech and fake news, which – although criticized in other instances (a matter which is beyond the scope of this paper)² – has resulted in restrained behavior from the traditional media and social media outlets. As we describe below, this enabled the government to swiftly communicate accurate information, policies, and guidance to the public.

Furthermore, as a matter of social culture, Singaporeans tend to trust the authority of the government and are generally receptive to the government's policies and measures. Thus, during COVID-19, there was no significant outcry or pushback to the government's top-down approach. Most Singaporeans have complied with the restrictions imposed (which we address below).

While this paper focuses on the government's response, community support from individuals and businesses has also been critical, whether by reassigning staff to the healthcare industry,³ or producing face masks and other essentials.⁴ These factors have contributed to plugging the supply gaps in the system, improving compliance with safety measures, and ultimately spreading social consciousness within Singapore society.

III. SINGAPORE'S PANDEMIC PREPAREDNESS

While COVID-19 exposed certain gaps in Singapore's pandemic preparedness (which we address below), overall, Singapore was relatively well prepared for the COVID-19 pandemic.

One of the main reasons for Singapore's preparedness was its harrowing experience in 2003 with the SARS pandemic, resulting in 238 cases and 33 deaths within Singapore.⁵ The SARS crisis caused Singapore to invest significantly in pandemic preparedness. It also drove Singapore's political commitment to comply with its IHR core capacity obligations.

² Stefania Palma, Neil Munshi & John Reed, *Singapore 'falsehoods' law shows perils of fake news fight*, THE FINANCIAL TIMES (Feb. 4, 2020), <https://www.ft.com/content/e50eb042-3db3-11ea-a01a-bae547046735>.

³ Michelle Ng, *SIA cabin crew redeployed to care for hospital patients*, THE STRAITS TIMES (Apr. 8, 2020), <https://www.straitstimes.com/singapore/manpower/sia-cabin-crew-redeployed-to-care-for-hospital-patients>.

⁴ Tang See Kit, *How a Singapore firm in the printing business switched to making masks amid COVID-19*, CHANNEL NEWS ASIA (Sept. 14, 2020), <https://www.channelnewsasia.com/news/singapore/company-making-face-masks-diversify-printing-business-covid-19-13058294>.

⁵ Leong et al., *SARS in Singapore--predictors of disease severity*, 35 ANN. ACAD. MED. SINGAP. 326 (2006).

Thus, when COVID-19 broke out, Singapore already had a developed public health and policy system to detect and respond to disease outbreaks. The level of Singapore's preparedness was examined in two recently published external evaluations: the 2018 WHO Joint External Evaluation and the 2019 Global Health Security Index. The 2018 WHO Joint External Evaluation Report found Singapore to have a high level of preparedness and to be in good compliance with its IHR obligations. Singapore's achievement on the 2019 Global Health Security Index, which assesses the global health security capacities in 195 countries, has been lower, yet still relatively good at 24th place.

Below, we briefly layout the main findings of these reports regarding Singapore's pandemic preparedness. We then provide some examples of the pandemic capacities that Singapore has developed and established in recent years.

A. External Evaluations

i. 2018 Joint External Evaluation (“JEE”)

Under IHR 2005, all States Parties are required to develop minimum core public health capacities to “detect, assess, notify and report events,”⁶ and to respond “promptly and effectively”⁷ to public health emergencies. Under the WHO's IHR Monitoring and Evaluation Framework, Member States may voluntarily request an external investigation – through the joint external evaluation (“JEE”) scheme – of their compliance with IHR core capacity requirements.⁸ Based on the information provided by the Member States, the JEE mission, which is composed of external experts, reviews national capacities in the following four fields: preventing, detecting, and responding to an outbreak and other IHR-related hazards and points of entry. Under the JEE, these four topics are divided into seventeen technical areas (which are divided into forty-eight indicators) that cover matters such as national legislation, policy, and financing, IHR coordination and communication, national laboratory systems, surveillance, and more.⁹ The JEE scores each of the indicators and technical areas.

6 WHO, *Revision to the International Health Regulations*, Doc. WHA 58.3, art. 13 (May 23, 2005) [hereinafter IHR].

7 *Id.* art. 13.

8 WHO, *Strengthening health security by implementing the International Health Regulations (2005): Joint External Evaluations*, <https://www.who.int/ihr/procedures/joint-external-evaluations/en/> (last visited Jan. 21, 2021).

9 WHO, *Joint External Evaluation Tool: International Health Regulations (2005)*, 7 (2nd ed. 2018).

Singapore opted to undergo such an evaluation, and in 2018, the JEE issued its report.¹⁰ It found, on the basis of the information that Singapore had compiled, that Singapore had successfully passed the evaluation. The JEE team found that “Singapore had demonstrated strong leadership and a highly developed capacity to detect and respond to potential public health emergencies.”¹¹ It concluded that across the different technical fields, “Singapore has shown a high level of achievement in fulfilling IHR obligations.” Singapore received the highest or second highest score (5 = sustainable capacity and 4 = demonstrated capacity out of a scale of 0 through 5) in 96% of the indicators (65% of the indicators received the highest score, while 31% received the second highest score). This included high rankings in areas such as national legislation, policy, and financing, IHR coordination and communication, zoonotic diseases, the national laboratory system, food safety, and many more. The report highlighted the state-of-the-art facilities and the coordinated whole-of-government approach to pandemic response, allowing for comprehensive risk communication and multisectoral implementation of a pandemic response.¹²

ii. The Global Health Security Index (“GHSI”)

The Global Health Security Index (“GHSI”) is a nongovernmental initiative that was developed by the Nuclear Threat Initiative, the Johns Hopkins Center for Health and Security, and the Economist Intelligence Unit, in conjunction with an international advisory panel of twenty-one experts from thirteen countries. The GHSI assesses the global health security preparedness of all 195 countries that are party to the IHR 2005. The GHSI is based on 140 questions that are organized across the six categories of prevention; detection and reporting; rapid response; health system; compliance with international norms; and risk environment. In contrast to the JEE, which relies on information provided by Member States, the GHSI aims to be more independent, as it scores each country by relying entirely on open-sourced information on the country’s policies and practices.

The 2019 Report ranked Singapore 24th in the world, scoring 58.7 out of 100, behind the top-ranked United States of America, United Kingdom, and other Southeast Asian countries, such as Thailand and Malaysia.¹³

¹⁰ *Id.*

¹¹ *Id.* at 1.

¹² *Id.* Singapore only scored relatively low (3=developed capacity) on radiation emergencies.

¹³ 2019 GHS Index Country Profile for Singapore, GLOBAL HEALTH SECURITY INDEX (Oct. 2019) <https://www.ghsindex.org/country/singapore/> [hereinafter GHSI 2019].

Singapore ranked very high on a few indicators, such as data integration between various sectors, risk communication, immunization and trade and travel restrictions. However, due to the lack of publicly available information,¹⁴ Singapore received scores of zero in other areas, such as exercising response plans, communications with healthcare workers during a public health emergency, and cross-border agreements on public and animal health emergency response.¹⁵ While this has led to calls for Singapore to increase its policy transparency (an issue that is beyond the scope of this paper),¹⁶ the low scores on these matters does not appear to reflect Singapore's true capacity. Indeed, the accuracy of the GHSI score has been called into question, as some states which received high GHSI scores – such as the United States and the United Kingdom – did not effectively respond to the COVID-19 pandemic (an issue which is also beyond the scope of this paper).¹⁷

B. Examples of Pandemic Preparedness

As is evident from the above, Singapore has developed many pandemic capacities. Below, we layout three examples of Singapore's pandemic preparedness, including the MOH Pandemic Readiness and Response Plan, designated pandemic public health facilities, and secured access to essential medical supplies.

i. Pandemic Readiness and Response Plan

In 2014, the Ministry of Health (MOH) adopted the *Pandemic Readiness and Response Plan for Influenza and Other Acute Respiratory Diseases*, which lays out the response plan in case of a potential pandemic.¹⁸ The purpose of the plan is to establish “an effective surveillance system to detect

¹⁴ *Id.*

¹⁵ *Id.*; Jeremy Lim & Hsu Li Yang, *Beyond a Scorecard Index: Relooking Singapore's Global Health Security*, SAW SWEE HOCK SCH. PUB. HEALTH PERSPECTIVE (Nov. 15, 2019), <https://sph.nus.edu.sg/featured-content/beyond-a-scorecard-index-relooking-singapores-global-health-security/>.

¹⁶ *Id.*

¹⁷ For more on this topic, see Tess Aitken, Ken Lee Chin, Danny Liew & Richard Ofori-Asenso, *Rethinking Pandemic Preparation: Global Health Security Index (GHSI) is predictive of COVID-19 burden, but in the opposite direction*, 81 J. INFECTION 318 (2020). See also Matthew J Boyd, Nick Wilson & Cassidy Nelson, *Validation analysis of Global Health Security Index (GHSI) scores 2019*, 5 B.M.J. GLOBAL HEALTH 1 (2020).

¹⁸ MOH PANDEMIC READINESS AND RESPONSE PLAN FOR INFLUENZA AND OTHER ACUTE RESPIRATORY DISEASES, SINGAPORE MINISTRY OF HEALTH ¶ 21 (revised April 2014), <https://www.moh.gov.sg/docs/librariesprovider5/diseases-updates/interim-pandemic-plan-public-ver-april-2014.pdf> (viewed May 2020) [hereinafter MOH RESPONSE PLAN].

the importation” of a virus with pandemic potential and “to mitigate the consequences when the first wave hits.”

Under the plan and in accordance with the Homefront Crisis Management System (a national framework for coordinating government-wide planning and response during a national crisis), the Ministry of Health chairs the Crisis Management Group (Health), which supports a multiministerial committee on the operational issues of the pandemic.¹⁹ As discussed below, this structure has been relied on to coordinate Singapore’s COVID-19 response.

The plan identifies that the pandemic response comprises the following components: surveillance,²⁰ management of suspected cases,²¹ infection control in healthcare settings, visitor control and temperature screening in hospitals, isolation and discharge criteria, handling of disease cases, border control measures,²² public temperature screening, contact tracing and quarantine,²³ social distancing,²⁴ medical treatment, pandemic vaccines, public communications plans,²⁵ and infection control.

The plan determines that in the case of a disease outbreak, the extent of the measures applied shall be gradual and made based on the extent of the public health impact. To this end, Singapore established the Disease Outbreak Response System Condition (“DORSCON”) framework. Under this framework, the extent of the government’s response will depend on the DORSCON level determined.²⁶ The framework has four DORSCON levels, i.e., green, yellow, orange, and red.²⁷ The Ministry of Health determines the DORSCON level based on the outbreak’s public health impact, taking into consideration diverse factors such as the severity of the disease or its transmissibility, availability of preventive interventions, geographical spread, recommendations of the WHO, and more.²⁸

19 *Id.* at 6-7.

20 *Id.* at 12.

21 *Id.* at 13.

22 *Id.* at 15.

23 *Id.* at 16.

24 *Id.* at 17.

25 *Id.* at 18.

26 *Id.* at 8, Table 1.

27 *Id.* at 8, Table 1.

28 *Id.* at 8.

| DORSCON Level | Public Health Impact |
|----------------------|-----------------------------|
| GREEN | Negligible to low |
| YELLOW | Low to moderate |
| ORANGE | Moderate to high |
| RED | High |

Table 1: DORSCON level indicating the severity of the local pandemic situation

This framework also separates the pandemic response into the following three phases: alert, containment, and mitigation.²⁹ Within each of these phases, the extent of the pandemic response measures applied depends on the DORSCON level.

The plan also highlights several planning assumptions that could serve as guidance for policymaking during a pandemic. These assumptions cover estimated durations for how long it would take to confirm the pandemic strain and when subsequent waves of infection may be expected.³⁰ Apart from these, however, the plan recognizes that actual planning would require reference to “real-time information” during the pandemic itself.³¹

ii. Public Health Facilities: NCID and PHPCs

In 2019, Singapore established the National Centre for Infectious Diseases (“NCID”), a facility whose purpose is to strengthen Singapore’s capacity to prevent and manage infectious disease outbreaks. The facility houses clinical, laboratory, research, training, and outreach functions. To treat patients, the NCID is equipped with a screening center, isolation and cohort wards, laboratories with epidemiologic functions, ICUs, and operating theatres. The NCID can hold five hundred beds during outbreaks. It houses, among others, the National Public Health Laboratory, which heads the national laboratory network.³² As mentioned below, the NCID has

²⁹ *Id.* at 10, Table 2.

³⁰ *Id.* at Annex C.

³¹ *Id.* at 4.

³² Having a national laboratory system is an essential element for detecting outbreaks, responding rapidly and for conducting disease surveillance. Singapore has established a comprehensive laboratory system, which includes a national laboratory network comprised of seven public hospital laboratories.

played a central role in managing COVID-19, during which it acted as the main COVID-19 treatment and research center.

To reduce the load on public hospitals in case of an outbreak, Singapore has also established public health preparedness clinics (“PHPCs”). Through this scheme, some diagnostics and the treatment of mild cases may be referred to private and community healthcare facilities. As described below, these clinics have also played an important role in supporting the COVID-19 response.

iii. Securing essential medical goods and PPE

During the SARS outbreak, Singapore experienced a shortage of medical supplies and therefore invested in purchasing medical goods and health personnel training. For example, public hospitals procured more negative-pressure isolation beds.³³ The government also stockpiled personal protective equipment (“PPE”) and essential medicines that could last for a period of six months.³⁴ Health professionals have also been trained to use the PPE correctly.³⁵ With the COVID-19 outbreak, this proved to be crucial.

To conclude, Singapore was relatively well prepared for a pandemic and was in high compliance with the IHR 2005 before COVID-19 broke out. In what follows, we examine Singapore’s public health response to COVID-19 to reveal areas for both commendation and improvement.

IV. SINGAPORE’S PUBLIC HEALTH RESPONSE TO THE COVID-19 PANDEMIC

As laid out above, Singapore was relatively well prepared for a pandemic when the COVID-19 pandemic began and, at least in accordance with the JEE report, was in high compliance with the IHR. However, an actual outbreak will always differ from planning, and COVID-19 has been a particularly challenging pandemic, requiring rapid regulatory and political decisions in real time.

The purpose of this section is to examine the public health measures that Singapore has adopted to combat COVID-19. As we shall see below, Singapore has taken an assertive, public health guided response, playing

³³ Yee Sin Leo, Chorh Chuan Tan & John E.L. Wong, *COVID-19 in Singapore – Current Experience: Critical Global Issues That Require Attention and Action*, 13 JAMA 1243 (2020).

³⁴ Jeffrey Cutter, Kee-Tai Goh & Heng Bee-Hoon, *Epidemiology and control of SARS in Singapore*, 35 ANN. ACAD. MED. SINGAP. 301(2006).

³⁵ Leo et al., *supra* note 33.

very much by the pandemic response play book. This determined response has been well received by a cooperative public, which has been highly compliant overall. That being said, its use of surveillance technology and its management of the migrant dormitories have raised concerns about privacy and the rights of vulnerable populations, respectively.

A. Multi-Ministry Taskforce

Immediately upon the discovery of the first imported COVID-19 case to Singapore on January 23, 2020,³⁶ a Multi-Ministry Taskforce (“the Taskforce”) coordinated by the Minister for Health and Minister for National Development was set up to coordinate a whole-of-government response to the COVID-19 outbreak.³⁷ This Taskforce is supported by governmental ministries and agencies and is organized based on the existing Homefront Crisis Management System in the Pandemic Readiness and Response Plan (addressed above).³⁸ This is in contrast to the SARS situation in 2003, when medical professionals and officials scrambled in disarray.³⁹ The Taskforce is comprised of Ministers and Senior Ministers of State from a range of ministries, including the Ministry of Communications and Information, Ministry of Manpower and Ministry of Education. This placed the Taskforce in a good position to observe the effect of the pandemic on all aspects of Singaporean lives. The Taskforce has directed the adoption and implementation of response measures, which address below.

B. Public Communication

From the outset, and very much like the government’s approach during SARS,⁴⁰ the Taskforce regularly convened to provide emergency press conferences to inform the public of changes in and updates to its pandemic

36 Singapore Ministry of Health, *Confirmed Imported Case of Novel Coronavirus Infection in Singapore; Multi-Ministry Task Force Ramps up Precautionary Measures* (Jan. 23, 2020), <https://www.moh.gov.sg/news-highlights/details/confirmed-imported-case-of-novel-coronavirus-infection-in-singapore-multi-ministry-taskforce-ramps-up-precautionary-measures>.

37 Singapore Ministry of Health, *Multi-Ministry Taskforce on Wuhan Coronavirus: Terms of Reference (TORs) and Composition* (Jan. 27, 2020), <https://www.moh.gov.sg/docs/librariesprovider5/default-document-library/multi-ministry-taskforce-on-wuhan-coronavirus-and-tor--final.pdf>.

38 James Low, *COVID-19 Crisis Management: An Early Look*, CIVIL SERVICE COLLEGE SINGAPORE (2020): <https://www.csc.gov.sg/articles/covid-19-crisis-management-an-early-look>.

39 Walid Jumblatt Abdullah & Soojin Kim, *Singapore’s Responses to the COVID-19 Outbreak: A Critical Assessment*, 50 AM. REV. PUB. ADMIN. 770, 772 (2020).

40 K. U. Menon, *SARS Revisited: Insights from Singapore – A Case Study on Adaptive Capacity, Managing Risk and Innovation*, 4, (Ministry of Information, Communications and the Arts, 2011): <https://www.pgionline.com/wp-content/uploads/2015/08/SARS-Revisted.pdf>.

response approach, such as announcing the shift of the DORSCON level from yellow to orange (mentioned above) or in implementing new punitive regulations pertaining to COVID-19. Seeking to reach a larger audience, the Taskforce has also expanded its public communications to include social media and messaging applications, such as WhatsApp, Facebook Live, and YouTube.⁴¹ For example, daily updates on the COVID-19 situation are sent through WhatsApp to all who have signed up to receive updates.

C. Preventing Importation of Disease

Singapore's tight border and travel control have been key in preventing the infiltration of cases from abroad and in keeping cases within Singapore to a minimum. Singapore reacted rapidly when the first COVID-19 case was reported in Wuhan and imposed a tiered travel restriction, which increased in restrictiveness as infection rates rose.

Based on the *MOH Pandemic Readiness and Response Plan*, preventing the importation of diseases is the first port of call in the initial phase of an outbreak.⁴² Hence, when Chinese officials first reported cases of 'viral pneumonia' in Wuhan in early January 2020, the Ministry of Health swiftly imposed temperature screening measures at Changi International Airport for inbound travelers arriving from Wuhan.⁴³ They also issued a health advisory to travelers and members of the public to take precautionary measures, including wearing a mask if unwell and practicing good personal hygiene.⁴⁴

As the number of imported cases increased, the Ministry of Health started imposing more detection measures at the border. Travelers who exhibited respiratory symptoms were required to undergo COVID-19 swab tests at the checkpoint.⁴⁵ Subsequently, fourteen-day Stay-Home Notices ("SHN") were imposed upon inbound travelers, requiring them to remain at a dedicated hotel facility or home residence at all times. The SHNs were initially required only for travelers from more severely affected countries,

41 Abdullah & Kim, *supra* note 39.

42 MOH RESPONSE PLAN, *supra* note 18.

43 Singapore Ministry of Health, *Precautionary Measures in Response to Severe Pneumonia Cases in Wuhan, China* (Jan. 2, 2020), <https://www.moh.gov.sg/news-highlights/details/precautionary-measures-in-response-to-severe-pneumonia-cases-in-wuhan-china>.

44 *Id.*

45 Singapore Ministry of Health, *Additional Precautionary Measures in Response to Escalating Global Situation* (Mar. 3, 2020), ¶ 9, <https://www.moh.gov.sg/news-highlights/details/tighter-measures-to-minimise-further-spread-of-covid-19>.

such as the United Kingdom and the United States.⁴⁶ Since April 2020, all inbound travelers to Singapore are required to observe a fourteen-day SHN at dedicated facilities and undergo COVID testing.⁴⁷

When Singapore entered a partial lockdown, which the Taskforce named the ‘Circuit Breaker’ (see Section H below), nonessential inbound and outbound traveling was discouraged. Inbound travelers were also restricted.⁴⁸ To discourage Singaporeans from engaging in outbound travel, the government also prohibited the use of the national health insurance, also known as Medisave, for patients who contracted COVID-19 while traveling.⁴⁹ Moreover, to control the number of incoming travelers and prevent an influx of cases, all travelers (except for Singaporean and permanent residents) must obtain entry approval by a government agency.⁵⁰

The Ministry has continuously reviewed these travel restrictions and adjusted them based on the risk of importation. Presently, Singapore has implemented special travel arrangements with various countries that have successfully contained the pandemic.⁵¹ However, plans for special travel arrangements remain subject to ongoing assessment of the public health risk of the corresponding country. In November 2020, plans for a travel bubble (that is, travel that does not require a fourteen-day SHN) between Singapore and Hong Kong were deferred, as Hong Kong started to see a rise in COVID-19 cases.⁵²

46 Clara Chong, *Coronavirus: People returning from UK and US to serve stay-home notice in dedicated facilities* (Mar. 24, 2020), THE STRAITS TIMES, <https://www.straitstimes.com/singapore/people-returning-from-the-uk-and-us-to-serve-14-day-stay-home-notice-in-dedicated>.

47 Singapore Ministry of Health, *Expansion of the Enhanced Stay-Home Notice Requirements to All Countries* (Apr. 8, 2020), <https://www.moh.gov.sg/news-highlights/details/expansion-of-the-enhanced-stay-home-notice-requirements-to-all-countries>.

48 Singapore Ministry of Health, *Additional border control measures to reduce further importation of COVID-19 cases* (Mar. 20, 2020), <https://www.moh.gov.sg/news-highlights/details/additional-border-control-measures-to-reduce-further-importation-of-covid-19-cases>.

49 Singapore Ministry of Health, *Tighter measures to minimise further spread of COVID-19*, ¶ 22 (Mar. 24, 2020), <https://www.moh.gov.sg/news-highlights/details/tighter-measures-to-minimise-further-spread-of-covid-19>; Clara Chong, *Coronavirus: No hospitalisation coverage for those who disregard Singapore’s travel advisories*, THE STRAITS TIMES (Apr. 7, 2020), <https://www.straitstimes.com/singapore/coronavirus-no-hospitalisation-coverage-for-those-who-disregard-singapores-travel>.

50 Singapore Immigration and Checkpoints Authority, *Before Arriving in Singapore*, <https://safetravel.ica.gov.sg/health/before-arriving> (last visited Jan. 21, 2021).

51 See Singapore Immigration and Checkpoints Authority, *Travelling to Singapore* (2020), <https://safetravel.ica.gov.sg/arriving/overview>.

52 See Kit Tang, *Travel bubble deferral a joint decision by Singapore and Hong Kong, says Chan Chun Sing*, CHANNEL NEWS ASIA (Nov. 23, 2020),

In May 2021, with the rise of importation of new COVID-19 variants originating from high-risk areas such as India, Brazil and South Africa, the government tightened measures applying to incoming travelers from these countries, increasing their SHN from 14 days to 21 days,⁵³ and reducing entry approvals for non-Singapore citizens and permanent residents.⁵⁴

D. Detection and Testing

Singapore has been aggressively conducting tests to identify new COVID-19 cases. As part of its detection strategy, more than eight hundred public health preparedness clinics (mentioned above) have been activated to enhance the detection of potential cases. Swab tests are also available at these clinics under the Swab and Send Home (“SASH”) program.⁵⁵ Clinics were instructed to test all patients presenting mild cold symptoms. All people awaiting the results of their COVID-19 tests – in clinics or hospitals – are instructed to self-isolate at home or to do so in such facilities while awaiting their test results.⁵⁶

To motivate potential patients to submit to testing, the government also initially bore the cost of all medical expenses related to testing and treatment. Subsequently, as the number of COVID-19 cases stabilized during the Circuit Breaker, Singaporeans were required to pay for their COVID-19 tests.⁵⁷ By June 2, 2020, four months after Singapore's first COVID-19 case, Singapore had conducted more tests per million people than other countries, including the United States, Germany, South Korea,

<https://www.channelnewsasia.com/news/singapore/deferral-air-travel-bubble-joint-decision-by-singapore-hong-kong-13619828>.

⁵³ Singapore Ministry of Health, *Updates on Local Situation, Border Measures and Shift to Heightened Alert to Minimise Transmission*, (May 4, 2021), https://www.moh.gov.sg/news-highlights/details/updates-on-local-situation-border-measures-and-shift-to-heightened-alert-to-minimise-transmission_4May2021.

⁵⁴ Mindy Tan, *Singapore to tighten border measures for travellers from India*, THE BUSINESS TIMES (Apr. 20, 2021), <https://www.businesstimes.com.sg/government-economy/singapore-to-tighten-border-measures-for-travellers-from-india>.

⁵⁵ Singapore Ministry of Health, Office for Healthcare Transformation, *COVID-19 symptom checker launched to inform and help the Singapore public navigate care options* (Apr. 3, 2020), <https://www.moht.com.sg/post/covid-19-symptom-checker-launched-to-inform-and-help-the-singapore-public-navigate-care-options>.

⁵⁶ *Id.*

⁵⁷ See *Cost of SHN stays, swab tests and medical expenses when you travel: Charging policy for incoming travellers and those returning home*, GOV.SG (Aug. 27, 2020), <https://www.gov.sg/article/cost-of-shn-stays-swab-tests-and-medical-expenses-when-you-travel>.

and Japan.⁵⁸ As of January 4, 2021, Singapore has conducted approximately 985,600 tests per million people⁵⁹ and continues to surpass other countries in the pro-rata number of tests conducted.

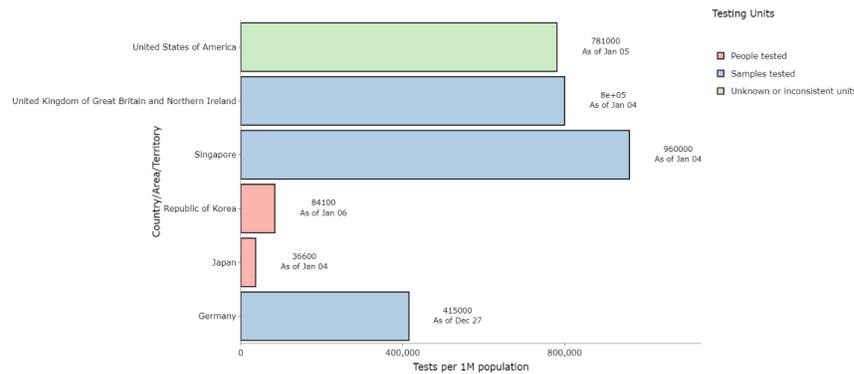


Figure 1: Graph comparing tests per million population across several countries⁶⁰

With an increased number of patients being tested, the Taskforce had to formulate sound triage plans to ensure that resources and manpower were optimally deployed. Hence, COVID-19 patients with mild or no symptoms were referred to the provisional community care facilities that had been set up to cater to COVID-19 patients, while severe cases were referred to hospitals.⁶¹

In addition, the government also converted nonmedical facilities to meet medical needs. They refashioned government-owned holiday chalets and university hostels as isolation facilities for patients with milder symptoms.⁶²

⁵⁸ Collet Dandara, Andre Pascal Kengne & Oppah Kuguyo, *Singapore COVID-19 Response as a Successful Model Framework for Low-Resource Health Care Setting in Africa?*, 8 J. INT. BIO. 470, 472 (Aug. 3, 2020).

⁵⁹ Singapore Ministry of Health, *Updates on COVID-19 (Coronavirus Disease 2019) Local Situation*, (Jan. 8, 2021), <https://www.moh.gov.sg/covid-19>.

⁶⁰ Graph generated from WHO COVID-19 Explorer: <https://worldhealthorg.shinyapps.io/covid/>.

⁶¹ Singapore Ministry of Health, *Comprehensive Medical Strategy for COVID-19*, ¶ 6 (Apr. 28, 2020), <https://www.moh.gov.sg/news-highlights/details/comprehensive-medical-strategy-for-covid-19>.

⁶² Singapore Ministry of Health, *Statement by Mr Gan Kim Yong, Minister for Health, At Parliament, On the Update on Whole-Of-Government Response to COVID-19*, ¶ 28 (Mar. 25, 2020), <https://www.moh.gov.sg/news-highlights/details/statement-by-mr-gan-kim-yong-minister-for-health-at-parliament-on-the-update-on-whole-of-government-response-to-covid-19>.

Finally, Singapore's biotechnological laboratories were tasked with developing antibody and other diagnostic testing to meet the demand for test kits in hospitals and clinics.⁶³

E. Contact Tracing and Surveillance Technology

i. TraceTogether and SafeEntry

In addition to making testing available, the Singapore government has also introduced contact tracing and community surveillance capacities to proactively detect new cases. During the SARS epidemic, the experience of having "superspreaders" who were primary sources of infection for multiple local transmission cases highlighted the importance of such measures.⁶⁴ Hence, when the COVID-19 pandemic first broke out, Singapore quickly worked to establish an effective contract tracing system. Presently, much of the success in containing the spread of the virus within the community can be attributed to this system, which has rapidly identified and isolated infected people and traced their contacts.

Once a case is confirmed, hospitals and clinics pass on the details of the case to the Ministry of Health. The Ministry of Health then contacts the people who had interacted with the patient.⁶⁵ Close contact and lower-risk contacts were then placed under quarantine and phone surveillance for fourteen days. During these fourteen days, more than thirteen hundred personnel from the Singapore Armed Forces and the Ministry of Defense reached out to identified contacts of an infected individual via phone calls and refer those who report symptoms to hospitals.⁶⁶

These contact tracing efforts have been enhanced by the Singapore government's use of new technology, which has expanded the scope of contact tracing and shortened the time taken to identify the close contacts

⁶³ Clara Chong, *Key biotech players in Singapore join hands to beef up COVID-19 test capacity*, THE STRAITS TIMES (May 23, 2020), <https://www.straitstimes.com/singapore/key-biotech-players-here-join-hands-to-beef-up-test-capacity>.

⁶⁴ Allen Yu-Hung Lai & Teck Boon Tan, *Combating SARS and H1N1: Insights and Lessons from Singapore's Public Health Control Measures*, 5 AUST. J. SOUTH-EAST ASIAN STUD. 74, 77 (2012).

⁶⁵ Salma Khalik, *Coronavirus: How contact tracers track down the people at risk of infection*, THE STRAITS TIMES (Feb. 9, 2020), <https://www.straitstimes.com/singapore/health/how-contact-tracers-track-down-the-people-at-risk-of-infection>.

⁶⁶ Aqil Haziq Mahmud, *SAF making thousands of calls a day to contact trace, check stay-home compliance as COVID-19 fight hits 'critical juncture'*, CHANNEL NEWS ASIA (Apr. 4, 2020), <https://www.channelnewsasia.com/news/singapore/saf-contact-trace-stay-home-notice-shn-covid-19-12606752>.

of an infected individual.⁶⁷ The Government Technology Agency (“GovTech”) has developed two main applications, i.e., TraceTogether and SafeEntry. Businesses are mandated by law⁶⁸ to display the SafeEntry QR and/or TraceTogether code at the entrance to any facility.⁶⁹ Entry to any facility or business – schools, malls, restaurants, apartment buildings, and so forth – is only permitted to individuals (aged seven and above) who have signed in through these applications (or, for those without an application, by registration of their identity card number). Upon exiting the facility, individuals sign out. These records are then used to identify individuals who enter the premises at the same time as an infected individual.

The TraceTogether program comprises both the TraceTogether mobile application and token. Both utilize Bluetooth technology to identify people who were within a close range of confirmed COVID-19 patients for sufficient durations of time.⁷⁰ Individuals can choose between using the mobile application, which was first rolled out for voluntary download in March 2020,⁷¹ or the physical tokens that have been distributed by Community Centers and Residents’ Committee Centers since October 2020.⁷²

While subscribing to this program is voluntary, it will eventually be de facto obligatory,⁷³ since the Singapore government announced that TraceTogether will be mandatory to enter places such as restaurants,

67 Singapore Ministry of Health, *TraceTogether and SafeEntry to be enhanced in preparation for further opening of the economy*, ¶ 5 (Sept. 9, 2020), <https://www.moh.gov.sg/news-highlights/details/tracetogogether-and-safeentry-to-be-enhanced-in-preparation-for-further-opening-of-the-economy>.

68 gobusinessCOVID, Contact Tracing Support (Jan. 11, 2021), <https://covid.gobusiness.gov.sg/safemanagement/safeentry/>.

69 Singapore Ministry of Health, *Implementing SafeEntry and Safe Management Practices* (May 9, 2020), <https://www.moh.gov.sg/news-highlights/details/implementing-safeentry-and-safe-management-practices>.

70 The BlueTrace protocol has since been made open-sourced at: <https://github.com/OpenTrace-community>.

71 Aqil Haziq Mahmud & Tang See Kit, *Singapore launches TraceTogether mobile app to boost COVID-19 contact tracing efforts*, CHANNEL NEWS ASIA (Mar. 20, 2020), <https://www.channelnewsasia.com/news/singapore/covid19-trace-together-mobile-app-contact-tracing-coronavirus-12560616>.

72 *TraceTogether token collection at community centres restricted to constituency residents*, CHANNEL NEWS ASIA (Oct. 27, 2020), <https://www.channelnewsasia.com/news/singapore/tracetogogether-token-collection-community-centres-covid-19-13378108>.

73 Tham Yuen-C, *More than 4.2m people using TraceTogether, token distribution to resume soon*, Lawrence Wong, THE STRAITS TIMES (Jan. 4, 2021), <https://www.straitstimes.com/singapore/politics/parliament-more-than-42m-people-using-tracetogogether-token-distribution-to-resume>.

shopping malls, or schools.⁷⁴ Indeed, as of January 4, 2021, about eighty percent of Singapore residents were using TraceTogether.⁷⁵

ii. Surveillance and Privacy

Although such surveillance technology assists in containing the pandemic, many commentators warn of the slippery slope risk to privacy and democracy.⁷⁶ In particular, the use of such technologies by the government gives rise to concerns as to how the Singaporean government will use the data collected.

With the introduction of the TraceTogether and SafeEntry applications, the government repeatedly assured the public that they were both developed strictly for the purposes of contact tracing and will provide minimal intrusion into citizens' privacy.⁷⁷ Indeed, according to the TraceTogether privacy statement, both the application and the token are designed to store limited personal data, and only three identity data types are collected: contact number, identification details, and a random anonymized user ID.⁷⁸ TraceTogether also does not collect GPS location.⁷⁹ The data is stored on the device and not on a server, and data will only be handed over to the Ministry of Health if the individual is a confirmed COVID patient.⁸⁰ Furthermore, individuals can request that their identification data be deleted from the GovTech server.⁸¹

In January 2021, however, it was revealed that such contact tracing data could still be used by law enforcement agencies for criminal investigations

⁷⁴ Lester Wong, *TraceTogether check-ins to be compulsory at public venues in S'pore by end-December*, THE STRAITS TIMES (Oct. 20, 2021), <https://www.straitstimes.com/singapore/checking-in-with-tracetogogether-to-be-compulsory-at-public-venues-by-december>.

⁷⁵ Tham, *supra* note 73.

⁷⁶ CIL NUS, e-Conference: COVID-19 – A New Surveillance Era? (2021), https://www.youtube.com/watch?v=aOz3UY8PV4c&ab_channel=CILNUS (last visited Mar. 22, 2021).

⁷⁷ TraceTogether Privacy Safeguards (Sept. 3, 2020), <https://www.tracetogogether.gov.sg/common/privacystatement/>.

⁷⁸ *Id.*

⁷⁹ *Id.*

⁸⁰ *Id.*

⁸¹ *Id.*

under the Criminal Procedure Code,⁸² and that data obtained from contact tracing had been used in a murder case.⁸³

This revelation gave rise to parliamentary debates and led to a decision to adopt a Bill regulating the use of contact tracing data. Within about one month, in February 2021, a bill which expanded the right to use the contract tracing data for criminal investigations – the COVID-19 (Temporary Measures) (Amendment) Bill, was adopted through a fast-tracked procedure.⁸⁴ Under the bill, contact-tracing data is to be used “only to carry out or facilitate contact tracing”,⁸⁵ except for criminal investigations into certain “serious offences.”⁸⁶ The Bill sets out seven categories of serious offences including the possession of dangerous weapons, terrorism, culpable homicides, drug trafficking, escape from legal custody, kidnapping, and serious sexual offences.⁸⁷ In these investigations, a law enforcement agency may assess contact-tracing data (from both TraceTogether and SafeEntry). The Bill further adds that any unauthorized disclosure or improper use of personal data is punishable with a fine of up to S\$20,000, or imprisonment of up to two years, or both.⁸⁸

Members of Parliament opposing this bill voiced concerns that this could hinder public adoption of TraceTogether. The opposition party, Progress Singapore Party, urged that such data should not be allowed for criminal investigations, as it would ‘backtrack’ on the government’s original representations and would ‘erode public confidence’.⁸⁹ On the other hand, some considered that law enforcement agencies should not be limited in their ability to conduct investigations. One member commented that

82 Matthew Mohan, *Singapore Police Force can obtain TraceTogether data for criminal investigations*: Desmond Tan, CHANNEL NEWS ASIA (Jan. 4, 2021), https://www.channelnewsasia.com/news/singapore/singapore-police-force-can-obtain-tracetoegether-data-covid-19-13889914?cid=h3_referral_inarticlelinks_24082018_cna.

83 Hariz Baharudin, *Police will restrict use of TraceTogether data to very serious offences*, THE STRAITS TIMES (Jan. 6, 2021), <https://www.straitstimes.com/singapore/politics/police-will-restrict-use-of-tracetoegether-data-to-very-serious-offences>; Although it was subsequently clarified that the investigations did not yield any useful data. See *Parliamentary Debates Singapore, Official Report*, vol 95 (2 February 2021), Reply to question by Mr Desmond Tan (Minister of State for Home Affairs), <https://sprs.parl.gov.sg/search/fullreport?sittingdate=2-2-2021>.

84 Parliament of Singapore, *Bills Introduced*, <https://www.parliament.gov.sg/parliamentary-business/bills-introduced> (last visited Mar. 13, 2021).

85 Covid-19 (Temporary Measures) (Amendment) Bill, Bill No. 2, 2021, §82(1)

86 *Id.* §82(2).

87 *Id.* Seventh Schedule.

88 *Id.* § 82(5).

89 Chew Hui Min, *TraceTogether: PAP MPs say proposed legislation addresses concerns; PSP suggests it should only be used for contact tracing* (Jan. 11, 2021), <https://www.channelnewsasia.com/news/singapore/tracetoegether-legislation-privacy-concerns-pap-psp-wp-13936112>.

refraining from use of the data was akin to ‘walking past a bloody knife and ignoring it’.⁹⁰ Yet despite these unresolved policy concerns, because of the PAP supermajority in Parliament (addressed above) the Bill passed expeditiously.

Singapore’s utilitarian approach to privacy concerns brought about by contract tracing government surveillance should be understood within the context of its general approach to privacy from government— which is much more restricted than that prevalent in other democracies. Unlike the approach taken in the EU, under Singaporean law, privacy protection is driven by pragmatism and is “not... by the desire to defend data subjects.”⁹¹ Further, unlike the US which protects privacy from the government under the Fourth Amendment,⁹² the Singapore Personal Data Protection Act (“PDPA”) does *not* regulate public bodies.⁹³ The highest court in Singapore has also rejected the argument for a constitutional right to privacy in Singapore.⁹⁴ Instead, government entities are required to self-regulate based on a set of internal Government Instruction Manual on IT Management.⁹⁵ Safeguards for misuse of personal data collected by public bodies lie in criminal liability of the respective government employee.⁹⁶

Likewise, public sentiment did not take a turn for the worse since the revelation that contact-tracing data could be used for criminal investigations. While 350 members of the public have reportedly requested for their contact-tracing data to be removed from the Government’s server, more than eighty per cent of the population have either downloaded the TraceTogether application or collected the token at the time of writing.⁹⁷

90 *Parliamentary Debates Singapore, Official Report*, vol 95 (2 February 2021), Speech by Mr Alex Yam (Member of Parliament for Marsiling-Yew Tee), <https://sprs.parl.gov.sg/search/fullreport?sittingdate=2-2-2021>.

91 Simon Chesterman, *After privacy: the rise of Facebook, the fall of Wikileaks, and Singapore’s Personal Data Protection Act 2012*, 12 S.J.L.S. 391, 414.

92 See *Carpenter v. United States*, 138 S. Ct. 2206 (2018).

93 Singapore Personal Data Protection Act 2012, s 4(c)

94 *Lim Meng Suang and another v Attorney-General and another appeal and another matter* [2015] 1 SLR 26, [2014] SGCA 53, ¶¶ 44-47; The Singapore Personal Data Protection Commission also cited this judgement supporting that any right to privacy may only be found in private law: *See My Digital Lock Pte. Ltd.* [2018] SGPDP 3, ¶ 24.

95 Smart Nation Singapore, *Government’s Personal Data Protection Laws and Policies*, <https://www.smartnation.gov.sg/why-Smart-Nation/secure-smart-nation/personal-data-protection> (last visited Mar. 19, 2021).

96 Singapore Public Sector (Governance) Act 2018, s 7, 8 (any government employee who misuses the data collected may be liable to pay a fine not exceeding S\$5,000 or to be imprisoned for up to two years, or both.)

97 Hariz Baharudin, *350 people asked for their contact-tracing data to be deleted*, THE STRAITS TIMES (Feb. 3, 2021), <https://www.straitstimes.com/singapore/politics/350-people-have-asked-for-their-contact-tracing-data-to-be-deleted-in-the-past>.

Thus, an ingrained trust in the government informs these social and cultural attitudes to privacy – in difference from the attitudes prevalent in other democracies.⁹⁸

Finally, the government assured that the adoption of the COVID-19 (Temporary Measures) (Amendment) Bill would not affect any government policies on the use of digital data in the future and that it was passed solely for the extraordinary circumstances of the pandemic.⁹⁹ Yet being still in the early stages of the application of these technologies, it remains to be seen how this will ultimately play out. In the absence of strong parliamentary opposition and constitutional legal protection of the right to privacy, further expansions to the government's use of the data remains a possibility.

F. Safe-distancing measures and masks

The Singapore government has also imposed safe-distancing measures. Since March 27, 2020, businesses and other facilities have been required to implement a seating distance of at least one meter apart for unrelated parties. Safe-distancing ambassadors have also been recruited and are deployed at various premises to remind members of the public to abide by these safe distancing measures.¹⁰⁰

Although the Ministry of Health initially relied on WHO guidelines that instructed against mask wearing, since April 2020, with the emergence of evidence of presymptomatic and asymptomatic transmission, the MOH legally mandates the wearing of masks from the age of two and above in all public premises.¹⁰¹ The government also released stockpiled masks and distributed reusable cloth masks nationwide on three occasions.¹⁰²

In contrast to other countries around the world, the public has been very compliant with mask requirements. Given what we know about the critical

98 Gerard Goggin, *COVID-19 apps in Singapore and Australia: reimagining healthy nations with digital technology*, 0 MED. INT'L AUS 1 (Au. 14, 2020).

99 *Parliamentary Debates Singapore, Official Report*, vol 95 (2 February 2021), <https://sprs.parl.gov.sg/search/fullreport?sittingdate=2-2-2021>.

100 Keeping you safe by keeping you apart, GOV.SG (June 10, 2020), <https://www.gov.sg/article/keeping-you-safe-by-keeping-you-apart>.

101 Singapore Ministry of Health, *Circuit Breaker to Minimise Further Spread of COVID-19*, ¶ 26 (Apr. 3, 2020), <https://www.moh.gov.sg/news-highlights/details/circuit-breaker-to-minimise-further-spread-of-covid-19>. Exceptions have been made for children below two years old and persons engaging in strenuous exercise. *Id.*

102 Ang Hwee Min, *Singapore to distribute 'better' reusable face masks to households*, CHANNEL NEWS ASIA (May 6, 2020), <https://www.channelnewsasia.com/news/singapore/covid-19-surgical-mask-production-reusable-masks-distributed-12706980>.

role of masks in preventing the spread of the virus,¹⁰³ such compliance has likely been key in preventing rapid spread.

G. Essential medical goods and PPE

As mentioned above, Singapore had stockpiled essential medical goods. This proved to be prescient given the global shortage of PPE and medical goods earlier in March 2020 owing to rising demand and panic buying,¹⁰⁴ as well as export bans by key producers.¹⁰⁵ This ensured a steady supply of medical supplies for both public and private healthcare providers during the outbreak.¹⁰⁶ Furthermore, the government was able to release stockpiled face masks to retailers and the public to keep market prices down.¹⁰⁷

Nevertheless, stockpiling was insufficient as the pandemic dragged on. Many countries continued to apply export restrictions all the way through 2020.¹⁰⁸ Singapore also understood the importance of ensuring international trade flows and removing trade restrictions on essential medical supplies. The government thus negotiated with other countries to ensure that supply chains remained open.¹⁰⁹ As the pandemic dragged on, Singapore also relied

103 Centers for Disease Control and Prevention, *COVID-19: Considerations for Wearing Masks* (Dec. 18, 2020), <https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/cloth-face-cover-guidance.html#:~:text=You%20should%20wear%20a%20mask,the%20virus%20to%20other%20people.>

104 News release from WHO, Shortage of personal protective equipment endangering health workers worldwide (Mar. 3, 2020), <https://www.who.int/news/item/03-03-2020-shortage-of-personal-protective-equipment-endangering-health-workers-worldwide>.

105 FELIX ESSER, LENNART JANSEN, ANNA KANTRUP, NIKOLAS KEBELS, STORMY-ANNIKA MILDNER, JONATHAN MUCK & KATHERINE TEPPER, EXPORT CONTROLS AND EXPORT BANS OVER THE COURSE OF THE COVID-19 PANDEMIC (BDI, 2020), 4, https://www.wto.org/english/tratop_e/covid19_e/bdi_covid19_e.pdf.

106 Timothy Goh, *Coronavirus: Almost all GPs given 2 weeks' supply of masks, gowns and gloves, says Health Ministry*, THE STRAITS TIMES (Feb. 19, 2020), <https://www.straitstimes.com/singapore/health/coronavirus-almost-all-gps-given-2-weeks-supply-of-masks-gowns-and-gloves-says>.

107 Wong Pei Ting, *Govt to distribute masks to all 1.37 million Singapore households amid Wuhan virus outbreak*, TODAYONLINE (Jan. 30, 2020), <https://www.todayonline.com/singapore/govt-distribute-masks-all-137-million-singaporean-households-amid-wuhan-virus-outbreak>.

108 See International Trade Center, Market Access Map, *Global map of COVID-19 temporary trade measures* (Nov. 5, 2020), <https://macmap.org/covid19>.

109 Annabeth Leow, *Singapore, 6 other Pacific countries pledge to keep trade, supply chains going during COVID-19 crisis*, THE BUSINESS TIMES (Mar. 25, 2020), <https://www.businesstimes.com.sg/government-economy/singapore-6-other-pacific-countries-pledge-to-keep-trade-supply-chains-going>.

on the internal production of medical supplies, such as ventilators¹¹⁰ and face masks.¹¹¹

H. Lockdown and Phases of Reopening

Initially, seeking to reduce restrictions on trade and travel in line with the IHR, Singapore avoided entering a national lockdown. Instead, it focused on preventing the importation of cases and encouraging social distancing measures within the community.

Nevertheless, as case numbers continued to increase, public health experts considered that a partial lockdown was necessary to slow the spread of COVID-19.¹¹² Thus, on April 3, 2020, as Singapore experienced a surge of new COVID-19 cases that were reportedly imported from Southeast Asian countries, the Taskforce announced a partial lockdown, named “Circuit Breaker.”¹¹³ During the circuit breaker, businesses were instructed to move to telecommuting from home and all schools shifted to full-time home-based learning.¹¹⁴ The taskforce released a list of essential services¹¹⁵ that were allowed to remain open. These included healthcare, social services, and other services required for daily living, including hairdressers and telecommunication services. The Circuit Breaker was extended once and ended on June 1, 2020.¹¹⁶

Upon the conclusion of the Circuit Breaker, the government published its plan to resume activities in three phases, depending on the state of the pandemic, with each phase relaxing more social-distancing restrictions. Phase One of reopening lasted for almost three weeks (until the beginning of Phase Two on June 18, 2020).¹¹⁷ During Phase One, seventy-five percent

110 Salma Khalik, *Coronavirus: Singapore to churn out ventilators*, THE STRAITS TIMES (Jul. 14, 2020), <https://www.straitstimes.com/singapore/singapore-to-churn-out-ventilators>.

111 *Gaming firm Razer to set up face mask manufacturing line in Singapore amid COVID-19 shortage*, CHANNEL NEWS ASIA (Apr. 1, 2020), <https://www.channelnewsasia.com/news/singapore/razer-covid-19-face-mask-manufacturing-line-singapore-12597834>.

112 MOH, *Circuit Breaker to Minimise Further Spread of COVID-19*, *supra* note 101, ¶ 2.

113 *Id.*

114 *Id.* ¶ 1.

115 See gobusiness COVID, *List of Permitted Services*, <https://covid.gobusiness.gov.sg/essentialservices> (last visited Jan. 21, 2021).

116 Ministerial Statement by Mr Lawrence Wong, Co-Chair of the Multi-Ministry Taskforce on COVID-19, on ‘Second Update on Whole-of-Government Response to COVID-19’ (May 4, 2020), ¶ 6, https://www.sgpc.gov.sg/sgpcmedia/media_releases/mnd/speech/S-20200504-1/attachment/Delivered%20Ministerial%20Statement%20by%20Mr%20Lawrence%20Wong%20on%204%20May%202020%20final.pdf.

117 Singapore Ministry of Health, *Moving into Phase Two of Re-Opening*, at ¶ 1 (June 15, 2020), <https://www.moh.gov.sg/news-highlights/details/moving-into-phase-two-of-re-opening>.

of the economy, including schools, resumed operations, yet many social and recreational activities remained unavailable. In Phase Two, the entire economy was reopened. Consumer and recreational activities were resumed, subject to a cap of five people in each gathering.¹¹⁸ However, activities that required large gatherings, including religious and cultural events, remained unavailable.¹¹⁹ On December 28, 2020, Singapore entered Phase Three.¹²⁰ At this stage, the allowable size of gatherings was increased from five to eight people. Religious and cultural activities were also permitted if participants were segregated in zones of fifty people. Phase Four – a return to normal – will only be entered upon the end of the pandemic. In May 2021, as unlinked community cases started to increase and new COVID-19 variants were detected within the country, Singapore tightened restrictions to control community transmissions by entering “Phase Two (Heightened Alert),” which reinstated work from home measures, prohibiting dining-in and recreational activities, and limiting group sizes to two persons.¹²¹

I. Enforcement

The government’s strict enforcement approach has also been a key factor in Singapore’s achievement: The Singapore Government has adopted extensive legislation to enforce health and social distancing measures, coupled with strict penalties for violations. These regulations have been strictly enforced and publicized for deterrence purposes.

For example, during the Circuit Breaker period, the Parliament passed the COVID-19 (Temporary Measures) (Control Order) Regulations 2020, which imposed strict criminal penalties on individuals who defied quarantine and isolation orders. An individual who contravenes any of the provisions under the Control Order Regulations can be fined up to \$10,000 (approximately USD 7,500) and/or be imprisoned up to six months.¹²² Penalties for repeat offenders are doubled.¹²³ Furthermore, Section 64 of the Infectious Diseases Act makes it an offence for an individual to hinder or

118 *Id.* ¶ 3.

119 *Id.* ¶ 13.

120 *Moving into Phase 3 of Re-Opening on 28 Dec 2020*, GOV.SG (Dec. 14, 2020), <https://www.gov.sg/article/moving-into-phase-3-of-re-opening-on-28-dec-2020>.

121 *Additional Restrictions under Phase 2 (Heightened Alert) to minimize transmission*, GOV.SG (May 14, 2021), <https://www.gov.sg/article/additional-restrictions-under-phase-2--heightened-alert>.

122 COVID-19 (Temporary Measures Act) 2020 (Cap. 13, 2020), s 34(7)(a).

123 *Id.*, s 34(7)(b).

obstruct the contact tracing process. The penalties for a breach of Section 64 are like those under the control order regulations.

To reduce the possibility of transmission from travelers, travelers are, as mentioned above, required to isolate. They may be served a quarantine order where they may be legally required to stay at home or in a government quarantine facility, a stay-home notice where they are not allowed to leave their place of residence for fourteen days, or a Leave of Absence, in which they are required to minimize their times spent in public spaces.¹²⁴ Travelers who have breached SHNs, Leaves of Absence, or Quarantine Orders are in violation of the Infectious Diseases (COVID-19 – Stay Orders) Regulations 2020 are subject to substantially the same penalties as under the Control Order Regulations.¹²⁵

For non-Singapore citizens, other administrative actions have also been taken, such as deporting them or revoking their work permits and passes.¹²⁶ In a widely publicized case, Singapore refused to renew the permanent residency status of a resident who had breached an SHN and permanently barred him from re-entry.¹²⁷

Nevertheless, people's willingness to cooperate has been not only a result of strict enforcement but, as mentioned above, also very much a result of an ingrained culture that tends to be compliant with government policies.¹²⁸

¹²⁴ Singapore Ministry of Health, *Frequently Asked Questions: G. Leaves of Absence, Stay Home Notice, and Quarantine Order* (Dec. 11, 2020), <https://www.moh.gov.sg/covid-19/faqs>.

¹²⁵ *Supra* note 120.

¹²⁶ *Manpower ministry revokes 4 work passes for Leave of Absence breaches, suspends employer privileges*, CHANNEL NEWS ASIA (Feb. 9, 2020), <https://www.channelnewsasia.com/news/singapore/wuhan-coronavirus-singapore-loa-breach-work-pass-12413478>; Singapore Ministry of Manpower, *Work Pass Revoked and Fines Issued for Breaching Circuit Breaker Measures* (Apr. 12, 2020), <https://www.mom.gov.sg/newsroom/press-releases/2020/0412-work-pass-revoked-and-fines-issued-for-breaching-circuit-breaker-measures>.

¹²⁷ *Man loses PR status, barred from re-entering Singapore after breaching Stay-Home Notice*, CHANNEL NEWS ASIA (Feb. 26, 2020), <https://www.channelnewsasia.com/news/singapore/covid19-coronavirus-pr-stay-home-notice-barred-12471954>.

¹²⁸ Sui-Lee Wee, *How Singapore Has Kept the Coronavirus Off Campus*, THE N.Y. TIMES (Jan. 9, 2021), <https://www.nytimes.com/2021/01/09/world/asia/singapore-coronavirus-universities.html?referringSource=articleShare>.

J. Migrant Workers

i. The Migrant crisis

Inasmuch as Singapore has been relatively well prepared for the pandemic, there was one major blind-spot that had been overlooked and with which it had been less prepared to deal with, and which at one point seriously threatened the containment of COVID-19. This was the crowded living conditions of more than three-hundred thousand migrants living in dormitories.¹²⁹

The largest spread of COVID-19 clusters in Singapore has by far been among migrant workers living in dormitories; at the peak of the outbreak, in April 2020, over one thousand daily cases were detected.¹³⁰ At the time of this writing, of the 58,320 cases that tested positive in Singapore, 54,505 were migrant workers.¹³¹ In other words, almost ninety-five percent of all infected people within Singapore have been migrant workers living in dormitories.

The reasons for the fast spread of COVID-19 in this community is their living conditions. The dormitories house approximately twelve to sixteen beds per room, allowing each individual to have 4.5 sqm of living space. Approximately fifteen individuals share one toilet, bathroom, and sink.¹³² Migrant workers also have little access to health insurance.

Although pandemic preparation plans had not included any migrant-specific planning, when the number of confirmed cases in the migrant workers community and dormitories started to significantly increase, the government responded rapidly. It set up an interagency taskforce,¹³³ which directed a containment and rapid detection strategy in all dormitories. Any worker who reported being sick or showed symptoms of acute respiratory

¹²⁹ Jinghao Nicholas Ngiam et. al, *Demographic shift in COVID-19 patients in Singapore from an aged, at-risk population to young migrant workers with reduced risk of severe disease*, 10 INT'L J. INFECT. DISEASES 329 (February 2021).

¹³⁰ *Id.* at ¶ 1.

¹³¹ Singapore Ministry of Health, *Measures to Contain the COVID-19 Outbreak in Migrant Worker Dormitories*, at ¶ 1 (Dec. 14, 2020), <https://www.moh.gov.sg/news-highlights/details/measures-to-contain-the-covid-19-outbreak-in-migrant-worker-dormitories>.

¹³² *Improved Standards of New Dormitories for Migrant Workers*, GOV.SG (June 8, 2020), <https://www.gov.sg/article/improved-standards-of-new-dormitories-for-migrant-workers>.

¹³³ Singapore Ministry of Manpower, *Comprehensive Approach to Take Care of the Well-Being of Foreign Workers Living in Dormitories* (May 1, 2020), <https://www.mom.gov.sg/newsroom/press-releases/2020/0501-comprehensive-approach-to-take-care-of-the-well-being-of-foreign-workers-living-in-dormitories>.

infection was isolated and given medical care.¹³⁴ Workers also had daily temperature and oximeter readings¹³⁵ and were monitored by medical teams that were either roving¹³⁶ or set up in their dormitories.¹³⁷ As the number of cases in the dormitories continued to rise, dormitories where COVID-19 clusters emerged were progressively gazetted as isolation areas; workers living in the dormitories could not freely access to community.¹³⁸ Within the dormitories, safe-distancing measures preventing intermingling between residents of different blocks were also implemented.¹³⁹ While such measures could not immediately contain the spread within the dormitories in part because of the cramped conditions of the dormitories,¹⁴⁰ it did manage to prevent a spill over into the broader community, and cases outside of the dormitories have remained at a low level with fewer than four thousand cases. The isolation for migrant workers living in dormitories continued as Singapore entered the Circuit Breaker from April to June 2020.

In that time, the Ministry of Health also began conducting mass testing for all migrant workers using the polymerase chain reaction (“PCR”) test. Initially, these tests prioritized migrant workers who worked in essential services to allow them to resume work earlier.¹⁴¹ Subsequently, in June 2020, the Ministry of Health started systematically testing all migrant workers using serology testing,¹⁴² which helped to distinguish those who were currently or newly infectious from those who had recovered from their infections but were still shedding noninfectious viral fragments. Those who had recovered but were still shedding viral fragments (serology-positive) were isolated for a seven-day period,¹⁴³ while those who had tested

134 MOH, *supra* note 131, ¶ 7.

135 *Id.* ¶ 8.

136 *Id.* ¶ 9b.

137 *Id.* ¶ 9a.

138 Punggol, *Toh Guan dorms gazetted as ‘isolation areas’, almost 20,000 foreign workers under quarantine*, TODAYONLINE (Apr. 5, 2020), <https://www.todayonline.com/singapore/punggol-toh-guan-dorms-gazetted-isolation-areas-almost-20000-foreign-workers-under>; *COVID-19: Two more foreign worker dormitories declared as isolation areas*, CHANNEL NEWS ASIA (Apr 23, 2020), <https://www.channelnewsasia.com/news/singapore/covid-19-foreign-worker-dormitories-isolation-homestay-changi-12668236>.

139 Ministry of Manpower, Safe Work and Safe Living (May 15, 2020), <https://www.mom.gov.sg/newsroom/press-releases/2020/0515-safe-working-and-safe-living>.

140 Andreas Illmer, *Covid-19: Singapore migrant workers infections were three times higher*, BBCNEWS (Dec. 16, 2020), <https://www.bbc.com/news/world-asia-55314862>.

141 *Id.* ¶ 6.

142 *Id.* ¶ 24; *Half of Singapore’s migrant workers in dormitories have had COVID-19*, REUTERS (Dec. 15, 2020), <https://www.reuters.com/article/health-coronavirus-singapore-dormitories-idINKBN28P0E1>.

143 *Id.* ¶ 15a.

serology-negative were isolated and observed for fourteen days in case they were asymptomatic patients.¹⁴⁴

During the Circuit Breaker, migrant workers who had been tested and cleared of COVID-19 were arranged to stay in separate dormitories. Those who worked in essential sectors were also allowed to work during the Circuit Breaker, while workers in other sectors were allowed to do so from June 2020 onwards if their employers had made safe living and working arrangements. Such safe living and working arrangements include staggered pick-up and drop off transport arrangements and recording of daily temperatures.¹⁴⁵ By early November 2020, more than ninety-eight percent of migrant workers living in dormitories were cleared to resume work.¹⁴⁶ To continue detecting and containing new infections, the Ministry of Health still conducts rostered, routine testing of workers who are susceptible to infection.¹⁴⁷ It is also monitoring the antibodies of migrant workers who have recovered from COVID-19.¹⁴⁸

ii. *The Rights of Migrants*

The migrants' crisis in Singapore is linked to the broader problem that the pandemic has exposed all around the world; and that is that this pandemic has taken an unequal toll on vulnerable communities¹⁴⁹ and that it has reinforced existing inequalities. In the Singaporean context, two main issues have arisen: migrant living conditions and movement restrictions.

First, the COVID-19 clusters in the dormitories brought mainstream attention to the living conditions of migrant workers¹⁵⁰ and the regular non-

144 *Id.* ¶ 15b.

145 Hariz Baharudin, *5,500 migrant workers from 40 dorms approved to resume work in Singapore*, THE STRAITS TIMES (June 10, 2020), <https://www.straitstimes.com/singapore/5500-migrant-workers-from-40-dorms-approved-to-resume-work-here>.

146 *Id.* ¶ 17.

147 *Id.* ¶ 26.

148 *Id.* ¶ 29.

149 Singapore was not the only country that faced a rampant spread of the virus within the migrant workers' community or other segments of marginalized society. COVID-19 clusters were also found within migrant workers' dormitories in other countries, such as Malaysia and Thailand. See Nilim Baruah, Florida Sandanasamy & Marja Paavilainen, *COVID-19 Impact on migrant workers and country response in Malaysia*, COUNTRY REPORT OF THE INTERNATIONAL LABOUR ORGANISATION REGIONAL OFFICE FOR ASIA AND THE PACIFIC [ILO] (May 8, 2020), https://www.ilo.org/wcmsp5/groups/public/--asia/---ro-bangkok/documents/briefingnote/wcms_741512.pdf; see also Nilim Barush, Anna Engblom, Natthanicha Lephilibert & Kuanruthai Siripatthanakosol, *COVID-19: Impact on migrant workers and country response in Thailand*, Country Report of the International Labour Organisation Country Office for Thailand, Cambodia and Laos PDR [ILO] (Apr. 17, 2020), https://labordoc.ilo.org/discovery/delivery/41ILO_INST:41ILO_V2/1269209690002676.

150 David Koh, *Migrant workers and COVID-19*, 77 OCCUPATIONAL & ENVTL. MED. 634 (2020).

adherence of dormitories to the International Labor Organization's (ILO) Housing Recommendations¹⁵¹ and the Singapore Foreign Employee Dormitory Act.¹⁵² This has also drawn disapproval from leading Singaporean voices.¹⁵³ For example, Singapore's Ambassador-at-Large, Professor Tommy Koh had publicly expressed his disapproval with how migrant workers have been treated at the onset of the pandemic.¹⁵⁴ Commentators have pointed out that the living conditions of migrant workers have been an ongoing issue that had hitherto received little attention.¹⁵⁵ During the COVID-19 pandemic, it was apparent that the existing dormitories were insufficient to ensure that safe distancing was practicable within the dormitories. This was why the International Labor Organization ("ILO")¹⁵⁶ and the United National Development Program ("UNDP")¹⁵⁷ published recommendations to urge countries and businesses to ensure sufficient social distancing within these housing facilities during the pandemic. The government has now agreed to improve dormitory standards, limiting occupation to a maximum of ten beds per room, and requiring one toilet, bathroom, and sink for every five beds.¹⁵⁸ Over the next two years, the government will build eleven more dormitories.¹⁵⁹ While

151 Int'l Labour Organisation [ILO], *Workers' Housing Recommendation (No. 115)*, General Principles ¶ 19, (June 28, 1961) https://www.ilo.org/dyn/normlex/de/f?p=1000:12100:0::NO::P12100_INSTRUMENT_ID,P12100_LANG_CODE:312453,en:NO.

152 Ministerial Statement by Mrs Josephine Teo, Minister for Manpower at ¶ D .10 (May 4, 2020), <https://www.mom.gov.sg/newsroom/parliament-questions-and-replies/2020/0504-ministerial-statement-by-mrs-josephine-teo-minister-for-manpower-4-may-2020>.

153 Sulaiman Daud, *The way Singapore treats its foreign workers is not First World but Third World': Tommy Koh on Covid-19 clusters in dormitories*, MOTHERSHIP (Apr. 6, 2020), <https://mothership.sg/2020/04/tommy-koh-foreign-workers-singapore-third-world/>.

154 *Id.*

155 For more on this topic, see, e.g., Ng Jun Seng & Justin Ong, *The Big Read: Solving Singapore's foreign workers problem requires soul searching, from top to bottom*, CHANNEL NEWS ASIA (May 11, 2020), <https://www.channelnewsasia.com/news/singapore/coronavirus-covid-19-foreign-workers-big-read-dormitories-12718880>; Donald Low, *How Singapore can draw the right lessons from the Coronavirus crisis*, SOUTH CHINA MORNING POST (Apr. 16, 2020), <https://www.scmp.com/week-asia/opinion/article/3080095/how-singapore-can-draw-right-lessons-coronavirus-crisis>.

156 Policy Brief from International Labour Organisation [ILO], *Protecting migrant workers during the COVID-19 pandemic: Recommendations for Policy-makers and Constituents*, at 4 (Apr. 2020), https://www.ilo.org/wcmsp5/groups/public/---ed_protect/---protrav/---migrant/documents/publication/wcms_743268.pdf.

157 United Nations Development Program [UNDP], *Human Rights Due Diligence and COVID-19: A Rapid Self-Assessment for Businesses*, 3, (2020) <https://www.undp.org/content/dam/undp/library/km-qap/RBAP-2020-Human-Rights-Due-Diligence-and-COVID-19.pdf>.

158 Joint MND-MOM Media Release on New Dormitories with Improved Standards for Migrant Workers (June 1, 2020), ¶ 9, <https://www.mom.gov.sg/newsroom/press-releases/2020/0601-joint-mnd-mom-media-release-on-new-dormitories-with-improved-standards-for-migrant-workers>.

159 Gov.sg, *supra* note 132.

these reforms suggest improvement, the question of whether they are in line with international standards is beyond the scope of this Essay.

Second, despite Singapore moving to the final phase of reopening in early 2021, migrant workers remain subject to more restrictive movement conditions than the general population— an issue that raises concerns regarding their wellbeing, and has been criticized.¹⁶⁰ The government plans to start a pilot scheme in 2021 to allow some migrant workers to access the community once a month, using contact-tracing devices,¹⁶¹ have been criticized by migrant worker groups as being “shockingly restrictive.”¹⁶² Indeed, while a large part of Singapore’s successful containment of the spread of COVID-19 could be attributed to the containment of the dormitory clusters, this has also subjected the dormitory-dwelling migrant workers to a greater number of restrictions. While there were NGOs which reached out to migrant workers when the dormitories were first placed under isolation,¹⁶³ this proved insufficient to ease workers’ existing anxieties concerning when they could start work, when they could return home, or of being infected.¹⁶⁴ In August 2020, cases of migrant workers suicides and self-harm started to surface.¹⁶⁵ In November 2020, an inter-agency taskforce was set up to provide mental health screening and counselling to migrant workers.¹⁶⁶

In all, Singapore’s experience shows that no one is safe from the virus in a pandemic and that protecting every individual matters in containing the spread. It has also highlighted the vulnerability of the migrant population and the need for better protection. These are important topics that deserve

160 Jennifer Jett, *As Singapore Venture Back Out, Migrant Workers Are Kept In*, N.Y. TIMES (Dec. 17, 2020), <https://www.nytimes.com/2020/12/17/world/asia/coronavirus-singapore-migrant-workers.html?referringSource=articleShare>.

161 *Id.* ¶ 28.

162 Transient Workers Count Too, *47% of dormitory residents had COVID-19* (Dec. 15, 2020), <https://twc2.org.sg/2020/12/15/47-of-dormitory-residents-had-covid-19/>.

163 Lai Gwen Chan & Benjamin Kwan, *Mental health and holistic care of migrant workers in Singapore during the COVID-19 pandemic* 10 J. GLOB HEALTH 1 (Aug. 11, 2020).

164 Rachel Phua & Ruth Smalley, *COVID-19: No spike in number of migrant worker suicides, says MOM*, CHANNEL NEWSASIA (Aug. 6, 2021), <https://www.channelnewsasia.com/news/singapore/migrant-workers-mental-health-suicides-covid-19-mom-12989854>.

165 *Singapore migrant worker mental health in spotlight after self-harm incident*, THE BUSINESS TIMES (Aug. 5, 2020), <https://www.businesstimes.com.sg/government-economy/singapore-migrant-worker-mental-health-in-spotlight-after-self-harm-incident>.

166 Ng Keng Gene, *Task Force Set up to Boost Mental Health Support for Migrant Workers*, THE STRAITS TIMES (Nov. 7, 2020), <https://www.straitstimes.com/singapore/task-force-set-up-to-boost-mental-health-support-for-migrant-workers>.

attention, yet addressing how these issues could or should be addressed goes beyond the scope of this paper.¹⁶⁷

K. Vaccination

In late 2020, Singapore signed at least three Advanced Purchase Agreements for vaccines with Pfizer, Moderna, and Sinovac.¹⁶⁸ On December 21, 2020, Singapore received its first batch of Pfizer BioNTech COVID-19 vaccines.¹⁶⁹ However, vaccines must be approved by the Health Sciences Authority and recommended by the COVID-19 Expert Committee before being used in Singapore, and at the time of writing, only the Pfizer BioNTech and Moderna vaccines had received interim approval by both bodies for use.¹⁷⁰ Even then, the HSA will continue to monitor the administration of the both vaccines before granting full registration.¹⁷¹

Vaccination is voluntary but highly encouraged. As recommended by the Expert Committee, the vaccine will first be offered to frontline and healthcare workers, followed by the elderly and other persons more vulnerable to severe disease and complications in case of infection.¹⁷² As of May 30, 2021, more than 4 million doses have been administered, with 1.7 million having completed their second dose.¹⁷³ Healthcare workers, migrant

¹⁶⁷ See more generally Satveer Kaur-Gill, *The COVID-19 Pandemic and Outbreak Inequality: Mainstream Reporting of Singapore's Migrant Workers in the Margins* 5 FRONT.COMMUN.65 (Sep. 30, 2020),

¹⁶⁸ *Id.*

¹⁶⁹ What you should know about the COVID-19 vaccine, GOV.SG (Dec. 30, 2020), <https://www.gov.sg/article/what-you-should-know-about-the-covid-19-vaccine>.

¹⁷⁰ Singapore Ministry of Health, *Expert Committee on COVID-19 Vaccine endorses use of Pfizer-BioNTech COVID-19 Vaccine* (Dec. 14, 2020), <https://www.moh.gov.sg/news-highlights/details/expert-committee-on-covid-19-vaccination-endorses-use-of-pfizer-biontech-covid-19-vaccine>; Singapore Health Sciences Authority, HSA Grants Interim Authorisation for Moderna COVID-19 Vaccine in Singapore (Feb. 3, 2021), <https://www.hsa.gov.sg/announcements/press-release/hsa-grants-interim-authorisation-for-moderna-covid-19-vaccine-in-singapore>.

¹⁷¹ Yuen Sin, *Parliament: S'pore will approve Covid-19 vaccines with at least 50% efficacy, among other criteria*, THE STRAITS TIMES (Jan. 4, 2021), <https://www.straitstimes.com/singapore/parliament-gan-kim-yong-sets-out-various-criteria-for-approval-of-covid-19-vaccines>.

¹⁷² Singapore Ministry of Health, *Government Accepts Recommendations of Expert Committee on COVID-19 Vaccination* at ¶ 5 (Dec. 27, 2020), <https://www.moh.gov.sg/news-highlights/details/government-accepts-recommendations-of-expert-committee-on-covid-19-vaccination>.

¹⁷³ Singapore Ministry of Health, *Updates on Local Situation and Vaccination Programme* (May 31, 2021), <https://www.moh.gov.sg/news-highlights/details/updates-on-local-situation-and-vaccination-programme>.

workers,¹⁷⁴ seniors and adults aged above 40 have begun to receive vaccinations.¹⁷⁵ For the migrant workers living in dormitories, the government also segregated them into groups, prioritizing those who have never been infected and were living in the largest dormitories.¹⁷⁶

While the Singapore government had planned to completely vaccinate the country by the third quarter,¹⁷⁷ vaccination was expedited with the rise of unlinked clusters in May 2021. As several clusters began to emerge in schools, Singapore invited students to sign up for vaccination at the beginning of June.¹⁷⁸ Following a review from the Singapore Health Sciences Authority, the Expert Committee provided interim authorization for the Pfizer-BioNTech vaccine to be administered to children aged 12 and above.¹⁷⁹ To further increase first-dose vaccination coverage, the interval between the first and second doses for mRNA vaccines was increased from two to six weeks.¹⁸⁰ While presently only mRNA vaccines have been approved by both the HSA and the Expert Committee, the Singapore Ministry of Health allowed the use of non-mRNA, WHO-approved vaccines through private clinics and hospitals for such individuals to build up their

174 Kok Yufeng, *30,000 migrant workers across 30 dorms to get Covid-19 jabs as next phase of vaccination drive begins*, THE STRAITS TIMES (Mar. 26, 2021), <https://www.straitstimes.com/singapore/30000-migrant-workers-across-30-dorms-to-get-covid-19-jabs-as-next-phase-of-inoculation>.

175 *Update on COVID-19 vaccination programme and guidance on the use of masks*, GOV.SG (May 18, 2021), <https://www.gov.sg/article/update-on-covid-19-vaccination-programme-and-guidance-on-the-use-of-masks>.

176 Singapore Ministry of Health, *COVID-19 Vaccination Brought Forward for All Seniors; Extended to Essential Services Personnel and Higher Risk Groups* at ¶13 (Mar. 8, 2021), <https://www.moh.gov.sg/news-highlights/details/covid-19-vaccination-brought-forward-for-all-seniors-extended-to-essential-services-personnel-and-higher-risk-groups>.

177 Hariz Baharudin, *Seniors across Singapore to start getting vaccinated against Covid-19 from Feb 22: PM Lee*, THE STRAITS TIMES (Feb. 12, 2021), <https://www.straitstimes.com/singapore/seniors-across-singapore-to-start-getting-vaccinated-from-feb-22-pm-lee>.

178 Yuen Sin, *Students to register for Covid-19 vaccination from June 1: All you need to know about the exercise*, THE STRAITS TIMES (May 31, 2021), <https://www.straitstimes.com/singapore/health/faqs-on-covid-19-jabs-for-students>.

179 Singapore Ministry of Health, *Expert Committee on COVID-19 Vaccination Endorses Extension of Use of Pfizer-BioNTech COVID-19 Vaccine in Individuals Aged 12 to 15 Years and Longer Dosing Interval for MRNA Vaccines* at ¶4 (May 18, 2021), <https://www.moh.gov.sg/news-highlights/details/expert-committee-on-covid-19-vaccination-18May>.

180 *Annex: Considerations of the Expert Committee on COVID-19, on Extending the Maximum mRNA COVID-19 Vaccine Dosing Interval to Eight Weeks* (May 18, 2021), <https://www.moh.gov.sg/docs/librariesprovider5/default-document-library/expert-comm-annex.pdf>.

COVID-19 immunity.¹⁸¹ As of June 2021, the Singapore Government plans to provide first-dose coverage to all adults by August 2021.¹⁸²

Internationally, Singapore is also participating in the COVID-19 Vaccine Global Access (“COVAX”) Facility. COVAX is an initiative under the WHO Access to COVID-19 Tools Accelerator initiative that seeks to accelerate the development and procurement of vaccines and ensure its equitable distribution to low-income countries. Currently, seventy-six developed countries have joined the COVAX Facility, including the United Kingdom, Canada, and China.¹⁸³ Ninety-two lower-income countries are also supported under the advance market commitment (“AMC”) mechanism.¹⁸⁴ Singapore has contributed US \$5 million to the COVAX AMC.¹⁸⁵ Singapore also cochairs the Friends of COVAX Facility initiative with Switzerland to promote vaccine multilateralism¹⁸⁶ by catalyzing discussions about the COVAX Facility and generating support among self-financing countries.¹⁸⁷

181 Joyce Teo, *New, unregistered vaccines offer options to those allergic to mRNA Covid-19 vaccines: Experts*, THE STRAITS TIMES (Jun. 1, 2021), <https://www.straitstimes.com/singapore/health/new-unregistered-vaccines-offer-choices-to-those-allergic-to-mrna-covid-19-vaccines>.

182 Justin Ong, *Coronavirus: Singapore – Those aged 39 and below can register for vaccines from mid-June*, THE STRAITS TIMES (Jun. 1, 2021), <https://www.straitstimes.com/singapore/politics/those-39-and-below-can-register-for-vaccines-from-mid-june>.

183 GAVI, *COVAX – List of participating economies* (Dec. 15, 2020), https://www.gavi.org/sites/default/files/covid/pr/COVAX_CA_COIP_List_COVAX_PR_15-12.pdf.

184 *Id.* 6.

185 Joint Press Statement by the Ministry of Foreign Affairs and Ministry of Health: Singapore’s Contribution to the Covid-19 Vaccine Global Access Advance Market Commitment (Dec. 4, 2020), <https://www.mfa.gov.sg/Newsroom/Press-Statements-Transcripts-and-Photos/2020/12/20201204-Joint-Statement-SG-Contribution-to-the-COVID-19-Vaccine-Global-Access>.

186 Tessa Oh, *Explainer: What is the global Covid-19 vaccine initiative to which Singapore has pledged \$6.7m?*, TODAYONLINE (Dec. 4, 2020), <https://www.todayonline.com/singapore/explainer-what-global-covid-19-vaccine-initiative-which-singapore-has-pledged-s67m>.

187 Ambassador Umej Bhatia, *“Vaccine multilateralism” – Singapore’s approach towards fair and equitable access for COVID-19 vaccines*, UNIVERSAL RIGHTS GROUP GENEVA (Dec. 10, 2020), <https://www.universal-rights.org/uncategorized/vaccine-multilateralism-singapores-approach-towards-fair-and-equitable-access-for-covid-19-vaccines/>.

V. CONCLUSION

Singapore has been highly successful at containing COVID-19. Out of more than sixty thousand cases, thirty-three deaths have been recorded,¹⁸⁸ and since the autumn of 2020, there have been no or very few cases transmitted within Singapore. Singapore has only gone into one lockdown. Schools, restaurants, and other facilities have gradually opened since July 2020, subject to social distance and contact tracing restrictions. On December 28, 2020, Singapore went into its last reopening phase, relaxing many of the limits at offices as well as cultural and business facilities. In response to the rise in unlinked transmissions and new variants in May 2021, Singapore tightened restrictions again, falling short of a complete lockdown. Once vaccination of the population has been completed by the third quarter of 2021, Singapore is set to largely reopen (at least domestically).

As we have argued in this Essay, Singapore's successful response is a result of three main factors, *i.e.*, its political and social context, its pandemic preparedness, and its public health dictated governmental response.

As elaborated, Singapore has taken a firm and assertive response to the outbreak, which has been guided by science and public health principles, and has been very much 'by the book.' The government has tight control over incoming travelers and is quick to identify and isolate infected people and to trace their contacts. It carries out extensive and free testing, provides medical care, and mandates mask wearing and social distancing. It communicates the national COVID-19 response strategy clearly to the public and strictly enforces requirements and restrictions. Its vaccine strategy promises to provide vaccines for everyone by the third quarter of 2021.

Inasmuch as these measures have been critical, to understand Singapore's success, it must be viewed within the broader context; the fact that Singapore had, as a result of its SARS crisis, significantly invested in pandemic preparedness and implemented its IHR obligations has been critical. Singapore has also been able to implement its response so effectively thanks to its unique political and social-cultural system. The top-down technocratic make-up of its legislative and executive branch has allowed for rapid, real-time, and science-based decision-making, as well as effective implementation and enforcement. This has been matched with

¹⁸⁸ Gov.sg, COVID-19 (Coronavirus Disease 2019), <https://www.gov.sg/features/covid-19> (last visited Jun. 4, 2021).

high social compliance. People have been willing to take on restrictions and limitations, whether it was due to a matter of culture and a sense of social responsibility or out of fear of enforcement. Moreover, while this paper has mostly covered the Singapore government's COVID-19 response, community support from individuals and businesses has played an instrumental role in the 'whole-of-government, whole-of-society' response.

Nevertheless, the COVID-19 experience has also exposed challenges in the country's pandemic response. Singapore's use of contact tracing technology gives rise to concerns over the protection of individual privacy from government surveillance. And its management of the migrant dormitories has brought to light the vulnerability of this marginalized population and the need for better protection.