CISDI
CENTER FOR INDONESIA'S STRATEGIC DEVELOPMENT INITIATIVES

HEALTH OUTLOOK 2022

AFTER THE DARK, WILL THERE BE LIGHT?

CISDI HEALTH OUTLOOK 2022
Habis Gelap, Terbitkah Terang?
After the Dark, Will there be Light?

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Probo Office Park
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Abbreviations

ANC	Antenatal Care
APBD	*Anggaran Pendapatan dan Belanja Daerah* (Regional Revenue and Expenditure Budget)
APBN	*Anggaran Pendapatan dan Belanja Nasional* (National Revenue and Expenditure Budget)
APIP	*Aparat Pengawas Internal Pemerintah* (Government Internal Supervisory Apparatus)
ASN	*Aparatur Sipil Negara* (State Civil Apparatus)
Bappenas	*Badan Perencanaan Pembangunan Nasional* (National Development Planning Agency)
BOK	*Bantuan Operasional Kesehatan* (Health Operational Assistance)
BOR	Bed Occupancy Rate
BPJS	*Badan Penyelenggara Jaminan Sosial* (Social Security Administrator)
BPK	*Badan Pemeriksa Keuangan* (Audit Board of the Republic of Indonesia)
BPOM	*Badan Pengawas Obat dan Makanan* (National Agency of Drug and Food Control)
BPS	*Badan Pusat Statistik* (Central Bureau of Statistics)
CDC	Centers for Disease Control and Prevention
CISDI	Center for Indonesia's Strategic Development Initiatives
COVAX AMC	COVAX Advance Market Commitment
COVID	Corona Virus Disease
CT	Computed tomography (X-Ray)
CT	Community Transmission
DBD	Demam Berdarah Dengue (*Dengue Fever)*
DNA	Deoxyribonucleic acid
DPR	*Dewan Perwakilan Rakyat* (House of Representatives)
EUA	Emergency Use Authorization
FDA	Food and Drug Administration
FITRA	Forum Indonesia untuk Transparansi Anggaran
GISAID	Global Initiative on Sharing All Influenza Data
ICU	Intensive Care Unit
ICW	Indonesia Corruption Watch
IDI	Ikatan Dokter Indonesia
IDAI	Ikatan Dokter Anak Indonesia
IHME	Institute of Health Metrics and Evaluation

Inmendagri	*Instruksi Menteri Dalam Negeri* (Instruction of the Minister of Internal Affairs)
IMF	International Monetary Fund
IPU	Inter-Parliamentary Union
Isoter	*Isolasi terpusat* (Centralized isolation)
Kemendagri	*Kementerian Dalam Negeri* (Ministry of Internal Affairs)
Kemenkes	*Kementerian Kesehatan* (Ministry of Health)
Kemenkominfo	*Kementerian Komunikasi dan Informatika* (Ministry of Communciation & Information)
Kemensos	*Kementerian Sosial* (Ministry of Social Affairs)
KIA	*Kesehatan Ibu dan Anak*
KKP	*Kantor Kesehatan Pelabuhan*
KMK	*Keputusan Menteri Keuangan* (Minister of Finance Decree)
KPC-PEN	Komite Penanganan COVID-19 – Pemulihan Ekonomi Nasional
KPK	*Komisi Pemberantasan Korupsi* (Corruption Eradication Commission)
KTP	Kartu Tanda Penduduk (Citizen identity card)
K/L	*Kementerian/Lembaga* (Ministries/Institutions)
LBH	*Lembaga Bantuan Hukum* (Legal aid)
LIPI	*Lembaga Ilmu Pengetahuan Indonesia* (Indonesian Institute of Sciences)
LKPP	*Lembaga Kebijakan Pengadaan Barang/Jasa Pemerintah* (Government Goods/Services Procurement Policy Institute)
LPEM	Lembaga Penyelidikan Ekonomi dan Masyarakat
MK	*Mahkamah Konstitusi (*Constitutional Court)
NAR	New All Record
NGO	Non-governmental Organization
NHS	National Health Service
OGI	Open Government Indonesia
Puskesmas	*Pusat Kesehatan Masyarakat*
Perpres	*Peraturan Presiden* (Presidential decree)
Perppu	*Peraturan Pemerintah Pengganti Undang-Undang*
PCR	Polymerase Chain Reaction
PDB	Produk Domestik Bruto (Gross domestic product)
PISA	Program for International Student Assessment
Polindes	*Pondok Bersalin Desa*
Posbindu	*Pos Binaan Terpadu*
Posyandu	*Pos Pelayanan Terpadu*
PUSKAPA	*Pusat Kajian dan Advokasi Perlindungan dan Kualitas Hidup Anak*
Puskesmas	*Pusat Kesehatan Masyarakat*
PPKM	*Pemberlakuan Pembatasan Kegiatan Masyarakat*
PSBB	*Pembatasan Sosial Berskala Besar*

PSHK	*Pusat Studi Hukum dan Kebijakan*
RDT	Rapid Diagnostic Test
RNA	*Ribonucleic acid*
RS	*Rumah Sakit* (Hospital)
SARS-CoV	Severe Acute Respiratory Syndrome Coronavirus
TNP2K	*Tim Nasional Percepatan Penanggulangan Kemiskinan*
TCM	*Tes Cepat Molekuler*
TPT	*Tingkat Pengangguran Terbuka*
SDM	*Sumber Daya Manusia* (Human Resource)
SE	*Surat Edaran*
SGTF	S Gene Target Failure
Silacak	*Sistem Informasi Pelacakan*
UKBM	*Upaya Kesehatan Bersumberdaya Masyarakat* (Community Based Health Efforts)
UMKM	*Usaha Mikro, Kecil, dan Menengah* (Small to Medium Enterprises)
UNICEF	United Nations Children's Fund
UU	*Undang-Undang* (Law, enactment)
VoC	Variants of Concern
WHO	World Health Organization

Glossary

Antenatal Care	Maternal and fetal care during pregnancy.
Bed Occupancy Rate	Bed usage rate
Cognitive dissonance	An uncomfortable condition of psychological distress is when a person has two or more cognitions (a number of information) that are inconsistent or inconsistent with each other.
Community Transmission	The WHO classification for the condition of the majority of confirmed cases cannot be traced to transmission. CT1: low incidence; CT2: moderate incidence; CT3: high incidence; CT4: very high incidence
COVAX	International Consortium; consists of GAVI, the Vaccine Alliance, the Coalition for Epidemic Preparedness Innovation (CEPI), and WHO, which is tasked with accelerating research, development, and production of COVID-19 vaccine candidates.
Decontamination	The process of cleaning an object or substance to remove contaminants such as microorganisms or hazardous materials including chemicals, radioactive substances, and infectious diseases.
Deliberative	Consultation, deliberate process
Embargo	Prohibition of commerce and trade with a country.
E-catalog	An electronic information system containing a list, types, technical specifications, and prices of certain goods/services from various providers of government goods/services.
False dichotomy	Provide two views/choices as if only two choices are recognized, even though there are many alternative scenarios, not just the two choices.
Fiscal	All matters relating to taxes or state income.
Formulary	List of drugs used for a particular therapy made by the state, local government, or hospital.
Herd immunity	When a large proportion of the population is immune to a particular infectious disease thus providing indirect protection or herd immunity for those who are not immune to that infectious disease.
Immunological	Immune response to infection
Inflammation	The body's natural immune reaction to fight various diseases or a response to tissue injury or infection.
Probable death	When a person has clinical symptoms (COVID-19) until death but has not been confirmed (COVID-19).
New All Record	Applications for recording and reporting COVID-19 cases starting from taking specimens to monitoring confirmed cases, recovering, and dying of COVID-19 in Indonesia.
Generic drugs	Types of drugs that have the same active ingredient content as patented drugs, also in terms of use and formulation.
Outbreak	A sudden increase in the incidence of disease that exceeds normal expectations in a community, limited to a certain place and time period.

Pathophysiology	The study of how a disease affects the body's systems
PeduliLindungi	Application to assist relevant government agencies in tracking to stop the spread of Coronavirus Disease (COVID-19).
PCare	Primary Care, BPJS Health website-based application that is used for data collection, registration, screening, target verification, and recording of COVID-19 vaccinations.
Plateau	Fase normal/stabil, tidak ada kenaikan atau penurunan angka.
Polymerase Chain Reaction	A method for creating millions to billions of copies of a specific deoxyribonucleic acid (DNA) segment, which allows scientists to multiply very small DNA samples until they reach sufficient numbers to study in detail.
Price caps	Price limit, a form of economic regulation that sets a price limit that can be charged by providers of goods/services.
Rapid Diagnostic Test	Quick and easy medical diagnostic tests to perform. This rapid diagnostic test gives results on the same day in two hours, usually in about 20 minutes.
Task Force	a unit or formation formed to carry out certain tasks.
S Gene Target Failure	The method used as an initial selection for later confirmation by sequencing the genome (all genetic information contained in the cells of an organism)
Silacak	Application/Tracking Information System for COVID-19 tracers to support testing, tracing, and treatment activities.
Spillover effect	An economic phenomenon that arises as a result of a country's policies or economic turmoil.
Statistical Numbing	A condition where statistics show an increase (in this case the COVID-19 death rate) but many people ignore and are apathetic.
Stunting	Impaired growth and development of children due to chronic malnutrition and repeated infections characterized by length or height that is below standard.
Surveillance	Systematic and continuous observation activities on data and information.
Telemedicine	An online medical service that allows doctors or medical personnel to provide health services remotely.
Antiviral oral therapy	Medications used to treat various viral infections by mouth, such as tablets, capsules, powders and liquids.
Trolling	Sending messages on the internet with the aim of evoking an emotional response or anger from other users
Booster vaccine	The COVID-19 vaccine is given after a person has received a full-dose primary vaccine aimed at maintaining immunity levels and extending the period of protection.
Variant of Concern	Coronavirus variants that cause an increase in transmission and death rates due to COVID-19 are Alpha, Beta, Gamma, Delta, and Omicron.
Virulence	The degree to which a microorganism is able to defend itself within its host cell and increase its potential to cause disease.
Whole Genome Sequencing	Whole genome sequencing or complete genome sequencing is the process of determining the complete DNA sequence of an organism's genome at one time

Introduction

Center for Indonesia's Strategic Development Initiatives (CISDI) published this Health Outlook 2022 to provide recommendations for policy directions for the Government and as a reference for other stakeholders in setting priorities for improving Indonesia's health policies. This study assesses the performance of the Indonesian health system in 2021 in the midst of the COVID-19 pandemic according to the World Health Organization (WHO) framework for handling outbreaks.

After mapping events and reflecting on the main drivers – trends – challenges that significantly marked Indonesia's healthcare sector during 2021, CISDI developed three scenarios. These scenarios were developed to provide a 2022 health development policy approach and direction for policymakers and various development actors. The characteristics of each scenario make them equally plausible.

Entering the third year of the pandemic, CISDI formulated recommendations for policy improvements based on challenges of implementing the three alternative scenarios. Recommendations are based on global and regional scientific evidence as well as explicit and implicit knowledge gained from experience of working at the national, sub-national and grassroots levels in transforming 100 sentinel community health centers (Puskesmas) in West Java to contain the spread of COVID-19 while maintaining integrity of essential health services.

This study was carried out by a team led by Egi Abdul Wahid and Yurdhina Meilissa. Team members include Adrianna Bella, Edo Prambudi, Fachrial Kautsar, Fitri Arkham Fauziah, Gatot Suarman Ilyas, Gea Melinda, Iqbal Hafizon, Lara Rizka, Lely Rachmawati, Nabilla Sophiarany, Olivia Herlinda, Rina Chomawati, Sadika Hamid, and Temy Ramadhan. Diah Satyani Saminarsih, the founder of CISDI and corresponding author of this document, provided the breadth and depth for the study. Rudra Ardiyase and Dedi Suhendi arranged the design and layout of this report. The dissemination concept for this document was designed and implemented by Iman Mahaputra Zein, Stella Yovita Arya Putri and the CISDI Communication Team.

We received various inputs and guidance according to scientific background and expertise of CISDI Board of Trustees, Supervisors and Advisors consisting of Akmal Taher, Wicaksono Sarosa, Christian Somali, Ani Rahardjo, Anindita Sitepu, and Fasli Jalal. Yudhi Prayudha Ishak Djuarsa provided special input on central and local government governance, primary health services and institutional governance.

CISDI is fully responsible for the findings, conclusions, and recommendations put forth in this study.

Executive Summary

"Health is not an outcome of development –
It is the heartbeat, without which no society can flourish."
— Tedros Adhanom Ghebreyesus, WHO Director General

The government predicts that the peak of COVID-19 Omicron variant wave will occur in mid-February to early March 2022. This news immediately reminds us of the COVID-19 tsunami due to the Delta variant which devastated the health system, economy, and social structure of the country in mid-2021.

The emergence of the Omicron variant while the Delta variant still circulated in Indonesia, declining public awareness due to fatigue and weariness, and vulnerable people who find it increasingly difficult to protect themselves; made the pandemic which took so many lives very vivid. However, contrary to scientific recommendations and public will, throughout 2021 the Indonesian government again forced people to live alongside SARS-CoV-2 without providing a clear strategy for handling the outbreak or public health interventions that follow standards set by WHO.

As of 31 December 2021, Indonesia recorded 4,262,720 positive COVID-19 cases and 144,094 deaths from the confirmed cases. Unfortunately, this tragic statistic is construed as a success, after emerging from the mid-year spike in cases. The fact that hundreds of thousands of people have lost their lives was not considered a tragic consequence. Like a layman, the government argued that the pandemic in 2021 had reached its peak of severity, but, fortunately, the country successfully passed the crisis by the end of the year. However, along with the transmission of the Omicron variant, the number of new COVID-19 cases increased exponentially in the first four weeks of 2022.

The situation started to show a deeper and wider potential for disruption of society due to the pandemic. The number of new cases and active cases that continued to accumulate cannot only be assessed from hospital bed occupancy, but from speed of transmission of the Omicron variant, the number of people in self-isolation or centralized quarantine have a direct impact on the sustainability of public activities, including economic activity, supply/distribution, availability of basic needs, and other things – what has been/is happening in Europe and America.

We cannot look away from reality of the COVID-19 pandemic behind the numbers or data. The fact that the COVID-19 pandemic has become a health, economic, social and moral disaster has knocked Indonesia off the positive path of achieving development targets. 54 to 80 percent of population that have been confirmed positive for COVID-19 have at least one clinical complaint two weeks to six

months after a positive diagnosis of COVID-19 (Lopez-leon et al., 2021; Groff et al., 2021). Reduced direct social interaction with family and friends is also thought to be closely related to widespread sense of isolation and loneliness which negatively affects mental health of individuals (Anindyajati, 2021). With current limitations, unmet needs for mental health services will have a major impact on health financing in general and on work productivity. Ultimately, the impact of COVID-19 on individual health could exacerbate the burden of the disease and significantly increase cost that must be borne by the health system and the National Health Insurance.

Our findings in 2020, highlighting disruptions to essential health services, weak surge capacity, burnout of health workers, and confusing health information; sadly remain highly relevant in 2021. The findings of our Survey with WHO (2021) highlights unmet basic health care needs: urgent medical care (18%), long-term home-based care (15%), planned elective surgery (14%), chronic disease treatment (14%), and mental health (14%). In terms of financing, although budget allocation for handling the pandemic will increase in 2021, government's refocusing and reallocation policy has led to many problems due to the diversion of too much resources from essential services.

Indirectly, social distancing measures that has led to an economic recession and increased unemployment during the COVID-19 pandemic is closely linked to increased inequality and poverty. The impact has been disproprotionately felt by marginalized communities and lower middle class populations. Before the pandemic (March 2020), the number of poor people in Indonesia reached 26.42 million people, an increase of 1.63 million people compared to September 2019. The number of poor again increased by 1.13 million people in September 2020 compared to March 2020. By March 2021, the number of poor in Indonesia dropped only slightly compared to September 2020. This means that the government must lift 2.75 million people out of poverty to return pre-pandemic conditions (BPS, 2021c).

Vulnerable groups such as children, youth and women now have to live under greater pressure during the COVID-19 pandemic. More than 25,000 children have lost one or both parents due to the COVID-19 pandemic (UNICEF, 2021). Poverty, school drop outs, the risk of being trapped in low income work in the future haunt children (Hillis, 2021, UNICEF, 2021). Furthermore, the number of child marriage dispensations tripled in 2020 (64,211) compared to 2019 (23,126), leading to a myriad of new social and health problems that threaten the quality of the nation's future human resources (Komnas Perempuan, 2021).

Apart from children, social and economic pressures during the pandemic, exacerbated by toxic social norms and existing gender inequality have put women in increasingly unfavorable positions socially. Incidence of violence against women increased in Indonesia during the COVID-19 pandemic, particularly domestic violence (TNP2K, 2020; Komnas Perempuan, 2021). During the COVID-19 pandemic, female single parents are also more prone to depression due to changing domestic situations (PUSKAPA, 2021). Women are also required to assume additional responsibilities while

children had to resort to distance learning and workers having to do work from home. 71.5 percent of households report that mothers performed a role as a companion for children during distance learning and only one in ten households viewed that housework must be divided equally among all members of the household while most consider it the responsibiity of female members of the household (UNICEF, 2020).

Indonesia is on the brink of a moral catastrophe due to its policies for handling the COVID-19 pandemic and the public's response to it. Improper policy approach, prioritizing personal interests and expediency over safety of others undermines public concern, eventually prolonging the pandemic. Social restrictions inevitably broadened as a result, and it harmed not only people's economy but also worsened the suffering of vulnerable populations who should be a priority in protecting against health and economic impacts of the pandemic. At an individual level: refusal to wear masks, insistence on holding nonessential gathering and travel that requires frequent testing, inequality in vaccination distribution, and refusal to isolate or quarantine after traveling despite being abel to access and afford it. At a national level, it is clear that unfair distribution of vaccines has unfairly benefitted people with access, despite not belonging to vulnerable groups, to get vaccines much faster and easier than those who actually need them more.

Amid the structural imperfections of handling the COVID-19 pandemic, the national leadership should be guided by a clear moral compass of humanity. The COVID-19 pandemic has exposed a national leadership that is morally suspect, with clear examples of corruption of social assistance by public officials, legal instruments that undermine the rule of law with loopholes to serve opportunistic interests. Various instances of ethical impropriety that surfaced in public painted a picture of a shameless political elite overeager to claim success amid a raging pandemic.

This document puts a spotlight on the government's response to the pandemic throughout 2021 in three major sections. First, we focus on the phase before the spike in cases in July 2021 when the government failed to make serious preparations. Second, we argue how the government's response has lost its urgency and effectiveness. Third, we argue that the government became complacent too quickly and this attitude not only potentially derailed efforts to maintain the pandemic response but also undermined the country's readiness to face health emergencies which should be a long-term focus.

The pandemic response track record from 2020 to date, public fatigue, economic pressures and the threat of the Omicron variant make us doubt the optimistic scenario where the increase in cases through April 2021 would not exceed the number of cases at the peak of the second wave. We believe that successful control of COVID-19 will be limited and very slow. In other words, local-scale flare-ups and endemics will occur in areas of high vulnerability. Some people will be able to successfully coexist with the SARS-CoV-2 virus, while others will die or be forced to live with health, economic and social consequences. This is a question of moral ethics: where will the government

stand? Will we reduce the value of human lives by hiding behind numbers? Can we allow some to live relatively normal lives, while many others risk their lives once they leave their homes for work and education?

There are four factors that could will be game changing in the successful handling of the pandemic, which involves a combination of several possibilities: 1) Emergence of a sub-Variant of Concern of the SARS-CoV-2 virus; 2) Vaccine availability to achieve complete primary dose and booster dose coverage; 3) Availability of antiviral oral therapy, and; 4) Government public health interventions, as well as the public response to comply.

Failures and gaps in COVID-19 response between regions, as well as the inequity gap must be addressed. To coexist with COVID-19, this disease must transform into an endemic disease where cases of infection are kept as low as possible (at baseline level without causing a significant number of deaths). Otherwise, COVID-19 could follow the same fate as other endemic diseases in Indonesia, such as DHF, malaria, tuberculosis with uncontrolled spread, persistent deaths, and increasing drug resistance.

Transformation must be designed to ensure that government commitments will lead to coordinated, interconnected, fast-moving, fair and equitable delivery. In other words, preparing for the threat of the third wave in 2022 will have to be done totally and reliably. The government can ill afford to delay clearing up overlapping regulatory frameworks for dealing with infectious disease outbreaks. Implementation guidelines, which are regularly updated based on the latest science, must be issued to assist coordination between ministries/agencies, serve as a planning guide in the regions, and make it easier for non-governmental elements to organize implementation support at the grassroots.

Limited resources that limit intervention, traceability, and micro-scale isolation require budget reallocation and refocusing, as well as integration of financing into National Health Insurance system. With massive testing and tracing, the COVID-19 epidemic curve can be charted accurately, down to the sub-district level. This will guide primary healthcare facilities to design strategies and respond to spikes in cases as early as possible in line with their authority.

In the context of limited vaccine supply and vaccine delivery capacity, a paid booster policy risks exacerbating vaccination inequality and diverting supply from equalizing the first two doses or primary vaccination. On that basis, we ask the government to definitively eliminate the paid booster policy for now and in the future, clarify the plan to achieve 70-80% full-dose vaccine coverage, accelerate vaccination coverage in vulnerable communities, clarify availability of supply and capacity of vaccination services. The third COVID-19 vaccine dose for the elderly population of 65 years and over, as well as setting up the governance to eventually provide the third dose for free to everyone. We call on the government to strengthen vaccination coverage for all, especially for the most vulnerable people by mobilizing primary health services. If transformation is carried out in an

integrated manner, Public Health Centers (*Puskesmas*) and private clinics at the primary service level are very capable of strengthening health capacity at the community level, including reaching vulnerable groups who have thus far had difficulties getting vaccines.

The *Puskesmas* remains a center for vaccination, including for boosters shots (third dose). In fact, providing support now will transform primary health care in terms of budget, human resources, and regulations. If this is done consistently, the result will be a transformative and resilient national health system and primary healthcare. Health workers and health cadres will spearhead the pandemic response and ensure quality primary health services.

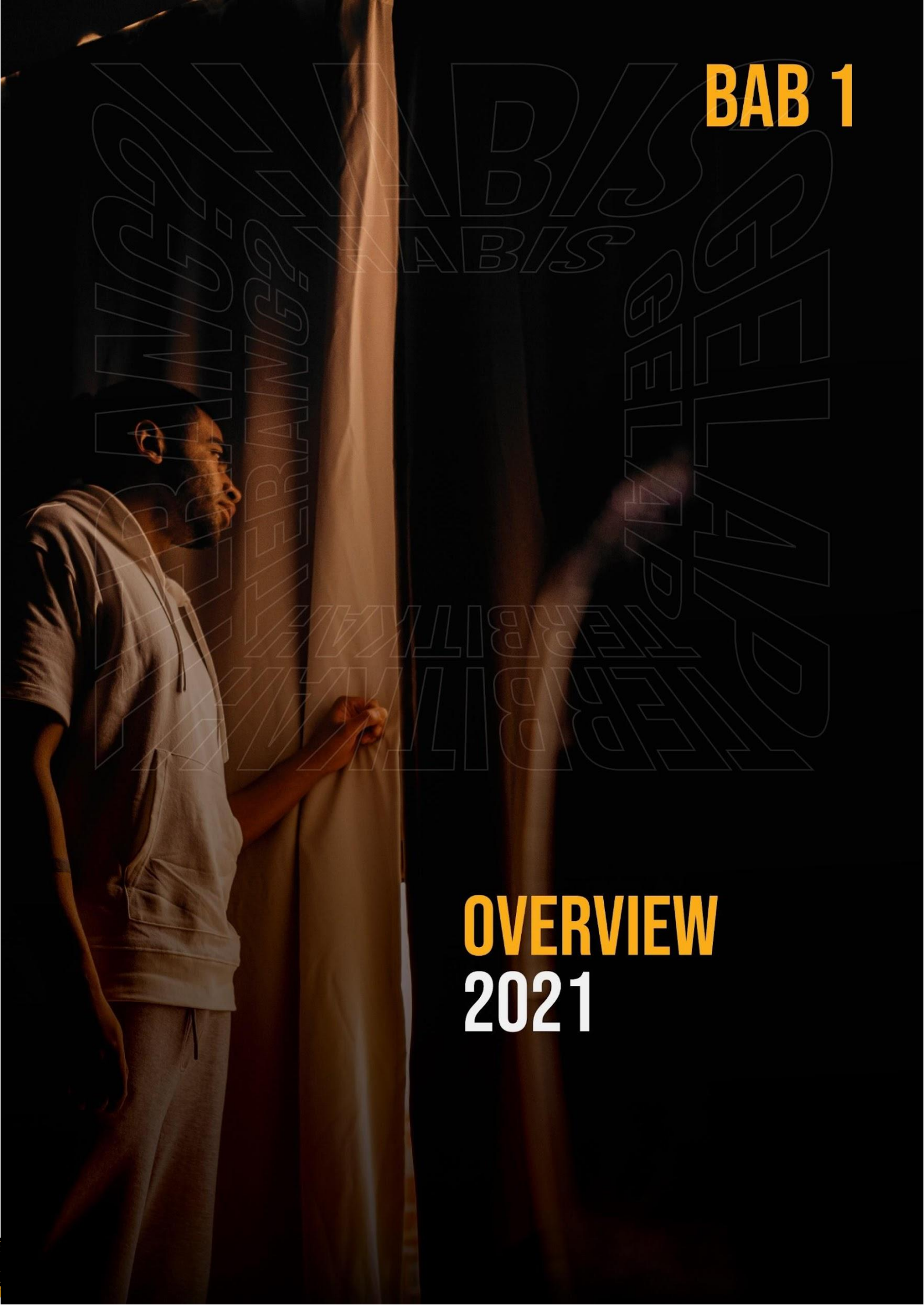
The government has to anticipate the need for regular booster shots in the future and long-term vaccine delivery strategies need to be designed to that end from now. Increased distribution capacity, readiness of *Puskesmas* infrastructure as community service centers, and integration of COVID-19 vaccination financing into the National Health Insurance system are urgently needed.

2022 may be the last year the government machine is able to exert technocratic control to handle the pandemic and prevent it from becoming a recurring disaster given the upcoming political cycle. In 2023, the capacity of the bureaucracy will be significantly affected by the dynamics of the five-year political routine. If structural improvements in handling the pandemic have not been addressed at the latest in the final trimester of 2022; then the COVID-19 response will get bogged down in political debates, exploited solely for 'beauty contests', and become the target of public anger, without any lifesaving uses.

Given the public's exhaustion and lessons from the past two years, finding the right combination of public health measures will be critical. The middle way that can be sought is to increase access to and compliance with use of standard respirators. It will help if N95/FFP2/KN95-grade masks become freely available and accessible to the public. Instructions on how to wear masks need to be updated with emphasis on ways to reuse N95/FFP2/KN95 masks with proper decontamination tips.

We are sure that everyone want the pandemic to be successfully handled and readiness to face future health emergencies be built. The four success indicators are: 1) Transformation of primary health care that positively impact health outcomes, health equity and health system efficiency (WHO, UNICEF, World Bank 2018); 2) A capable and empowered bureaucracy with the capacity to fully deliver; 3) Public who are actively engaged in overseeing and implementing health policies consistently; 4) A clear national position that is translated and adapted into national policy directions, especially in light of Indonesia's presidency of the G20 and active role in various multilateral health negotiations,.

Will this all be achieved in 2022? **Will there finally be light?**



BAB 1

OVERVIEW 2021

Chapter 1 | 2021 at a Glance[1]

"I have no idea what's awaiting me, or what will happen when this all ends.
For the moment I know this: there are sick people, and they need curing."
— Albert Camus, The Plague

CLOSING A GLOOMY 2020, WE STARTED 2021 WITH OPTIMISM AND CAUTION.

Closing a gloomy 2020 (CISDI, 2020), we started 2021 with cautious optimism. A wave of global optimism started as the world praised President Joe Biden's decision for the United States of America to resume being an active part of the World Health Organization (WHO). The Access to COVID-19 Tools Accelerators initiative included COVAX and other global efforts designed to stop and prevent the spread of COVID-19 (CISDI, 2020). The United States also supported the TRIPS waiver for COVID-19 vaccine intellectual property (Morales, 2021) — a moral commitment that aims to unravel complexities of vaccine manufacturing and ensure vaccine availability in developing countries. The launch of a COVID-19 vaccine one year after the pandemic was established was achieved due to the world's shared will to work across sectoral divides. The COVID-19 vaccine is concrete evidence of the cooperation and commitment of science, technology, industry, and politics.

In January 2021, Indonesia became the first country in ASEAN that reached one million cases of COVID-19, but several policy indicators gave a positive hope. In the midst of COVID-19 onslaught, the appointment of Budi Gunadi Sadikin as the Minister of Health signalled hope for a transition from a response that snubbed science, to a science-based response that is more alert and fast. The appointment of Minister of Foreign Affairs Retno Marsudi as one of the three co-chairs of COVAX AMC also gave hope for a smoother global vaccine distribution process and signalled Indonesia's national position that supports multilateralism. WHO's decision to allow confirmation of cases with SARS-CoV-2 antigen-based rapid diagnostic tests (Ag-RDT) which aimed to overcome the PCR test backlog (WHO, 2021b) was immediately followed by the commitment of the Ministry of Health (MoH)

[1] Data of pandemic journey is mostly taken from the WHO COVID-19 Situation Report for Indonesia, unless stated to refer to a different reference (WHO, 2021a)

to distribute them to all *Puskesmas* (Jakarta Globe, 2021). In terms of funding, the Ministry of Finance allocated 173.3 trillion rupiah from the state budget for COVID-19 response, double the 2020 budget (63.5 trillion).

Digital platforms for COVID-19 proliferated and were expected to be able to help implement public policies. The Ministry of Health launched Inpatient Information System version 2.0 which allowed access to real-time data on the availability of isolation beds and ICUs in all public and private health services. The Ministry of Communication and Information launched a new feature in the *PeduliLindung* application to support tracing and provide electronic certificates for COVID-19 vaccinations. The Ministry of Health and the COVID-19 Task Force use the *Silacak* application for close contact tracing. The New All Record (NAR) database was also built as an integrated system to record COVID-19 test results and link them to the national civil registration system. By the end of 2021, public uptake and compliance in using *PeduliLindungi* increased sharply. According to our observations, this was the result of consistency and firmness of the central government in implementing policies for use of this application throughout Indonesia for citizens and visitors/migrants, without exception. We note this progress as one of the positive highlights among pandemic handling policies initiated by the central government in 2021.

The government issued Presidential Regulation Number 14 of 2021 to prepare for the implementation of COVID-19 vaccination in the country.[2] The vaccination program was officially launched on 13 January 2021, which was planned to target 208,265,720 people (70% of the population)[3] in three stages. For the first stage, the Ministry of Health targeted 1.4 million health workers to receive vaccines by 15 January 2021, followed by the elderly, public service workers, vulnerable groups, and general public including adolescents aged 12-17 years.

With the start of the COVID-19 vaccination program, the Minister of Foreign Affairs announced that Indonesia had signed an agreement to acquire 50 million doses of AstraZeneca and Novavax vaccines, respectively, following CoronaVax which had previously arrived in the country. Shortly thereafter, BPOM, Indonesia's Food and Drug Administration, issued an Emergency Use Authorization (EUA) for the CoronaVac (11 January 2021), AstraZeneca (9 March 2021), Sinopharm (30 April 2021) and Pfizer (15 July 2021) vaccines.

However, cases continued to rise throughout January 2021. Test positivity proportion, which had been steadily increasing since November 2020, peaked (30.5%) in mid-February. On 12 February 2021, the number of confirmed cases of COVID-19 treated in hospitals in DKI Jakarta reached a peak of 9,888

[2] This regulation stipulates changes to Presidential Regulation No. 99 of 2020 concerning the procurement of vaccines and vaccination services in the context of the Corona Virus Disease 2019 (COVID-19) Pandemic Management.

[3] Up from the original target of 181.5 million people.

inpatient cases. The death rate moved from 0.37/100,000 people to 0.39/100,000 people during this period. Meanwhile, first dose vaccination rate plateaued throughout February 2021.

On 2 March 2021, Deputy Minister of Health confirmed that the SARS-CoV-2 variant first identified in the UK (B.1.1.7) had been detected in two confirmed cases of COVID-19 in Indonesia. This discovery prompted the government to strengthen whole genome sequencing in 17 laboratories in Indonesia, including the Eijkman Institute of Molecular Biology and LIPI. This finding also forced the government to ban the Eid al-Fitr homecoming tradition in 2021.

In the same month, Indonesia postponed distribution of the AstraZeneca vaccine in connection with news of After Events Following Immunization (AEFI) of post-vaccination blood clots in Europe (COVID-19 Task Force, 2021a). Limited vaccine stocks, triggered by embargo from India (COVID-19 Task Force, 2021b), lowered the daily injection rate in mid-April 2021 from 500,000 injections per day to just 200,000-300,000 injections per day. To increase vaccination coverage, Bio Farma distributed 77,000 doses of Sinopharm vaccine for the 'Gotong Royong' private vaccination program on 15 May 2021.[4]

Our optimism took a dive when the spike in cases and deaths from the Delta variant manifested. On 10 May, the Minister of Health reported that bed occupancy rate (BOR) at COVID-19 Referral Hospitals in eight provinces had increased sharply due to a surge in COVID-19 cases. At its peak, on 20 June 2021, 11,037 cases of hospitalization were reported. The week after the Eid holiday (17-23 May 2021), the weekly average number of confirmed cases increased by 36.1% compared to the previous week. Deaths from COVID-19 in the same period also increased by 13.8%.

The Indonesian Doctors Association (IDI) reported that there was an increasing trend of COVID-19-related deaths among health workers. As of 22 June 2021, 974 health workers died from COVID-19; most were doctors (374) and nurses (311) – among the highest in Asia. Despite a decline in the number of health worker deaths in April (11 deaths), the number steadily climbed back up since then to 17 deaths in May and 26 deaths in June. At the same time, Indonesia reported its highest number of new confirmed cases since COVID-19 was first reported: a total of 15,308 new cases and 2,033,421 cumulative cases were reported nationwide.

An increasing trend of hospitalizations occurred in May and early June, with 7,410 cases of hospitalization reported on 13 June—the highest number reported since February. The health system capacity was strecthed to its limits. Some provinces had Bed Occupancy Rate (BOR) of more than 90%. The average daily cases, over a 7-day period from 17 to 23 June 2021 was 13,681—an

[4] On 15 March 2021, the Indonesian government launched an independent or mutual cooperation vaccination program using the Sinopharm, Moderna, Sputnik V, and Novavax vaccines. (Yanwardhana, 2021a).

increase of almost 50% compared to the 8,657 cases per day reported in the previous week. The positivity rate indicator hit an alarming record of 51.62% in June 2021.

On 21 June, the Indonesian Pediatrician Association (IDAI) reported that proportion of confirmed cases of COVID-19 in children aged 0-18 years in the country was 12.5%. In addition, IDAI stated that mortality for COVID-19 cases among children in Indonesia was 3%-5%. The transmission of COVID-19 among children continued to increase amid a surge in cases. On 22 June, IDAI Banten reported that the city recorded a total of 2972 cases of COVID-19 in children from August 2020 to 21 June 2021.

On 26 June 2021, racing against the increasing death rate due to COVID-19, the Government of Indonesia increased the vaccination target to one million doses per day. President Joko Widodo instructed the National Police and TNI (Indonesian military) to support the national vaccination program and carry out their own vaccination program with the Ministry of Health (MoH). The one million doses campaign started across the country with police stations and military posts opening vaccination sites to support ongoing program from health authorities and local governments.

By July 2021, the situation was becoming more dire. The unabated spread of the disease was suffocating testing, tracing, and isolation interventions. The average number of COVID-19 tests per day reached 146,345 people in July 2021, which was actually already much higher than the average throughout 2020 at 16,160 people per day. Tracing ratio of 12-13 people for each positive confirmed case (COVID-19 Task Force, 2021b) was also much higher than the ratio at the end of 2020 of 1.62. However, this progress was far from the ideal target set by the Ministry of Health, which promised 500,000 tests per day.[5] As a result, there was no separation between healthy and sick clusters. Very quickly, the second wave peak occurred on 15 July 2021, with the number of new confirmed COVID-19 cases reaching 56,757 (Yanwardhana, 2021b; Asmara, 2021, Fundrika, 2021)

In mid-July 2021, the proportion of recoveries from the total confirmed cases of COVID-19 was 80.8%—the percentage of recoveries was steadily falling since late June. During week of 12 to 18 July, the incidence of COVID-19 cases in Indonesia increased substantially from 67.1 per 100,000 population in the previous week to 95.6 per 100,000 population—three times the peak in February (31.5 per 100,000 population). The highest community transmission rate (CT4) was observed in seven provinces with very high incidence per 100,000 population: DKI Jakarta (688.6), DI Yogyakarta (362.9), East Kalimantan (248.9), North Kalimantan (213.3), Riau Islands (208.1), West Papua (198.1) and Bangka Belitung Islands (178.0).

[5] Based on media monitoring by CISDI, reporting on the target of this test took place from 1 July to 10 August. However, the target was never achieved.

Mass media headlines highlighted the collapse of health services which led to many deaths, including outside of health facilities. Demand for hospital beds for COVID-19 patients soared within previous two weeks in several regions of Indonesia amid a surge in cases. Cengkareng Hospital, West Jakarta and Bekasi City Hospital, West Java, two large hospitals designated for treatment of COVID-19 patients, reported that their intensive care units (ICU) for COVID-19 patients at the hospital were operating at full capacity. At the Bekasi City Hospital, an emergency ICU with a capacity of 30 beds was set up outside the emergency room to accommodate the surge in patients.

Demand for medical oxygen in the country skyrocketed and triggered death of patients in the ICU. The government's decision to divert 100% of industrial oxygen for health did not have much impact, due to bottlenecks in the supply chain and lack of oxygen tanks. The oxygen crisis at Dr. Sardjito Hospital in Yogyakarta claimed the lives of 33 COVID-19 patients overnight.

The collapse of health services forced COVID-19 patients to self-isolate without monitoring. During July-August 2021, a total of 74,532 deaths were recorded with an average number of deaths per day reaching 1,202 per day (processed from Kawal COVID-19, 2021). LaporCOVID-19 initiative, which collected data from resident reports, reported that 3,015 patients died at home during self-isolation (LaporCOVID-19, 2021). Due to overwhelming queues for hospital admissions and inadequate capacity of *Puskesmas* telemedicine, the government had no choice but to encourage centralized isolation. Minister of Health's Circular Letter HK.02.01/Menkes/11/2021 urged 30% of hospital beds to be allocated for COVID-19 patients to cope with the surge in the number of hospitalizations due to COVID-19, which had increased 3.5 times. For additional health workers, the Ministry of Health had prepared 16,000-20,000 nurses and 2,200-2,900 doctors. The Ministry of Health also worked to expand free telemedicine services for COVID-19 cases with mild symptoms, which will include free online consultations and medicine delivery in collaboration with health startups.

By 10 July 2021, the Ministry of Health prepared the provision of the third COVID-19 vaccine dose (booster vaccine) for health workers. The third dose used Moderna COVID-19 vaccine, more than three million doses of which Indonesia received on 11 July from the United States government distributed through COVAX.

At the national level, during the week of 26 July to 1 August, the number of confirmed COVID-19 deaths increased from 2.83 deaths per 100,000 in the previous week to 3.70 per 100,000 population. As the number of daily confirmed cases of COVID-19 in Indonesia continued to grow, during the week of 5-11 August, the COVID-19 Task Force reported that the number of people taking tests was 930,513: a decrease from a total of 1,008,665 people taking tests during the previous week. This figure continued to decline to 78,626 tested on 18 August.

At a press conference on 9 August 2021, the Coordinating Minister for Maritime and Investment Affairs announced that the government would eliminate deaths due to COVID-19 as an indicator in

determining the level of Enforcement of Community Activity Restrictions (PPKM). The government found that deaths reported in the national registry system were cumulative rather than daily data due to delays in reporting from subnational to national level. The Coordinating Minister said this created distortions in the analysis and assessment of PPKM.

This decision received widespread criticism from various development actors. LaporCOVID-19 noted that more than 19,000 COVID-19 deaths reported by city and district governments were not registered in the national government registry system. As of 7 August, LaporCOVID-19 recorded a total of 124,790 COVID-19 deaths, compared to 105,598 deaths reported by the government. The largest gaps in reporting were observed in Central Java, West Java, DI Yogyakarta, Papua, West Kalimantan, North Sumatra, Central Kalimantan, East Java, Banten, and West Nusa Tenggara. LaporCOVID-19 also asserted that the data published by the government did not include probable deaths and people in self-isolation.

Entering August 2021, the crisis seemed to have started to subside in many provinces in Indonesia. At the national level, the BOR at COVID-19 referral hospitals had decreased. As of 22 August 2021, the national BOR rate was 33%, compared to 52% on 8 August 2021. On the same day, ICU BOR was 47%, compared to 64% on 8 August 2021. As of 23 August, the total number of isolation beds available had increased to 126,211 (almost three times higher than the 47,056 available beds on 17 May). However, it is important to note that indications of a decrease in BOR were observed only from the national aggregate figures. When disaggregated at the sub-national level, it was evident that in several provinces, BOR continued to increase.

Entering the second week of September, incidence of COVID-19 in Java-Bali region had decreased to a low level of community transmission (CT1), although in regions outside Java-Bali it remained at a moderate level (CT2). As of 12 September, the national BOR was 15% compared to 20% recorded on 5 September 2021. On the same day, the BOR in the intensive care unit (ICU) was 22% compared to 30% on 5 September 2021. On 19 September 2021 , the weekly incidence per 100,000 population nationally, in the Java-Bali and ourside of Java-Bali regions were 13.7, 10.7 and 17.9, respectively. National incidence decreased to a low community transmission rate (CT1) from a moderate level (CT2) in the previous week: Java-Bali remained at CT1 and outside of Java-Bali decreased from CT2 to CT1. During the week of 13-19 September, the number of confirmed deaths from COVID-19 in Indonesia was 1.0 per 100,000 population, compared to 1.5 deaths in the previous week.

The death rate also declined during November-December 2021. Nationally, during the week of 8 to 14 November 2021, the number of confirmed COVID-19 deaths in Indonesia remained at 0.1 per 100,000 population from the week of 18 to 24 October. Deaths in Java-Bali and outside Java-Bali also reached 0.1 per 100,000 population over the previous four to five weeks.

BAB 2

EXAMINING IMPACT OF THE PANDEMIC FOR INDONESIA

Chapter 2 | Examining the Impact of the Pandemic for Indonesia

"There is no constant value for a human life, that the value of a single life diminishes against the backdrop of a larger tragedy."

— Paul Slovic

To quote the Guardian headline, "… 2021 … a year that was darker, stranger and even less fun than the one before". Every day, newspapers, scientific journals, television news broadcasts filled the public discussion space about the pandemic. Chapter 1 above summarized the dynamics of the COVID-19 pandemic in numbers that are often used to describe severity of outbreaks: transmission rate, bed occupancy rate, mortality rate, and vaccination coverage. Using narrow metrics, an ordinary person can perhaps argue that the pandemic in 2021 had reached its peak of severity, but then the crisis was overcome by the end of year.

USING NARROW METRICS, AN ORDINARY PERSON CAN PERHAPS ARGUE THAT THE PANDEMIC IN 2021 REACHED ITS PEAK OF SEVERITY, BUT THEN THE CRISIS WAS OVERCOME BY THE END OF THE YEAR.

AS A RESULT, THE FACT THAT HUNDREDS OF THOUSANDS OF PEOPLE HAVE LOST THEIR LIVES IS NO LONGER SEEN AS A TRAGIC CONSEQUENCE.

Such oversimplified metrics makes us lose sight of the true meaning of public health. The WHO (1948) definition of health is "a state of complete physical, mental and social well-being, not merely the absence of disease or infirmity". This concept is very relevant to lead us to see more beyond just numbers.

By 31 December 2021, Indonesia recorded 4,262,720 positive COVID-19 cases and 144,094 deaths. The daily onslaught of statistical data have somewhat watered down the emotional significance of

these numbers. The fact that hundreds of thousands of people had lost their lives no longer feels like a tragic consequence.

Should we blame people for this apathy? Isn't statistical numbing a human consequence? We cannot blame others, but that does not mean the attitude is right and should be accepted. This chapter will provide the reality of the COVID-19 pandemic impact beyond the numbers – the extent to which the COVID-19 pandemic has become a health, economic, social, and moral disaster – that does not exclude anyone. It is the findings in this chapter that should guide deliberative thinking to concretely, using evidence-based population health considerations, design the future of coexistence with COVID-19, without numbing down feelings due to the onslaught of COVID-19 throughout 2021.

2.1 Impact of COVID-19 on Individual Health

From the individual health perspective, SARS-CoV-2 infection not only causes health problems at the time of infection, but can also persist or reappear long after the acute infection has disappeared, which is called post-COVID-19 syndrome or long COVID (NHS, 2021). Previous studies mentioned that 54% to 80% of the population who were confirmed positive for COVID-19 have at least one clinical complaint two weeks to six months after a positive COVID-19 diagnosis. Overall, there are at least 38 to 50 symptoms, signs, and laboratory results that are clinical manifestations of SARS-CoV-2 infection. The most frequent complaints include fatigue, followed by anosmia, pulmonary dysfunction, abnormal chest X-ray or CT results, and neurological disorders (Lopez-leon et al., 2021; Groff et al., 2021). Post-COVID-19 syndrome has a wide and diverse spectrum of disease manifestations because it can affect various organs and body systems: lungs, heart and vascular system, kidney, neuropsychiatric, endocrine system, and others (Nalbandian et al., 2021).

Mechanisms of the post-COVID-19 syndrome are not yet fully known and identified by experts. A study divided the mechanisms of post-COVID-19 syndrome into two, namely direct effects of viral infection and indirect effects related to mental health due to post-traumatic stress disorder, social isolation, and economic factors (Groff, 2021). Another study explains the pathophysiology of post-COVID-19 syndrome can be triggered by several mechanisms such as (i) pathophysiological changes caused by certain viruses; (ii) inflammatory and immunological responses to acute infection; (iii) sequelae after critical illness (Nalbandian, 2021).

Health impacts caused by restrictions on community mobility during the COVID-19 pandemic are no less significant. To suppress the spread of the virus, the public was asked to conduct activities from home and reduce social activities such as gatherings or holding events that require face-to-face interaction. This is thought to have several negative impacts on people's health and healthy behavior, such as reduced physical activity, increased consumption of sugary foods and sugary drinks, late bedtime, and decreased sleep quality (Flanagan et al., 2020). Many also report disturbing physical symptoms that appear to be stress-related, such as migraines, sleep disturbances, difficulty

concentrating and persistent fatigue. This is supported by statements from half of the correspondents in a study who reported that the policy of restricting activities to the home changed their lives and daily habits (Tommasi et al., 2020).

It is inevitable in conditions like this that people become vulnerable to psychological disorders and complaints. Globally, the prevalence of mental health issues has increased by about 24% to 50% with psychological stress being the most common complaint (Nochaiwong et al., 2021). Psychological disorders that can occur are very diverse, from anxiety, depression, excessive fear, stress, irritability, insomnia, to post-traumatic stress disorder (Tommasi et al., 2020; Flanagan 2020; Brooks, Weston & Greenberg, 2021; Marroquín, Vine and Morgan, 2020; Chinna et al., 2020). In Indonesia alone, three out of four people claim of feeling anxious during the COVID-19 pandemic (Anindyajati et al., 2021). Reduced direct social interaction with family and friends is also thought to be closely related to the rise of a sense of loneliness which negatively impacts the mental health of individuals (Anindyajati et al., 2021). With the current limitations, the unmet need for mental health services will have a major impact on health financing in general and work productivity.

Apart from loss of lives, a very large prevalence of post-COVID-19 syndromes reflects an equally large number of disabilities. Ultimately, the impact of COVID-19 on individual health could exacerbate the burden of diseases that must be borne by the health system and the National Health Insurance. As we know, Indonesian health system itself is on the brink of its capacity of being able to handle patients who are acutely infected with COVID-19. In addition, the National Health Insurance is predicted to be stressed once utilization improves after the pandemic (World Bank, 2021a). While data is not available at this time, we predict that healthcare spending will increase due to post-COVID-19 syndrome and other disease complications caused by delays in access to health services during the pandemic.

2.2 Impact of COVID-19 on Health Services

In terms of health services, COVID-19 has exposed weaknesses of the National Health System. The findings from Health Outlook 2021, which highlighted disruptions to essential health services, weak surge capacity, burnout of health workers, and confusion in health information, remain very relevant in 2022.

Findings of the WHO and CISDI surveys (2021) highlight the unmet need for basic health services. The highest percentage of unmet health needs are found in Papua (22%); the lowest was observed in Bali (5%). Unmet essential health care needs were most commonly observed in urgent medical care (18%), long-term home-based care (15%), planned elective surgery (14%), chronic disease treatment (14%), and mental health (14%). More than 25% of respondents reported difficulties accessing necessary health services prior to the COVID-19 pandemic. More than 60% of respondents observed changes in people's behavior in accessing health services in the last three months. Some of the challenges frequently raised by respondents include: fear of contracting COVID-19 in health facilities

(44%), fear of being misdiagnosed as positive for COVID-19 (32%), closing of facilities/overcapacity (14%), and fear of contracting COVID-19 when leaving the house (14%). Around 6% of respondents also reported discrimination as a challenge in accessing health services.

At *Posyandu* level, approximately 86% of health facilities reported discontinuation of monitoring of child development, 55% reported discontinuation of immunization services, 46% reported disruptions in the distribution of Vitamin A and 46% reported discontinuation of antenatal care. As a result, the percentage of pregnant women who made four antenatal care (ANC) visits decreased by 7.5% in 2020 compared to 2019, and a similar trend was observed for institutional delivery coverage and postnatal care visits among newborns. Compared to 2019, there was also a decrease of 5.9% to 11.4%, for routine immunization coverage in 2020. Provinces of Papua and East Nusa Tenggara are the highest contributors to malaria-related juvenile anemia and are most affected by pandemic disruptions in routine malaria services for vulnerable populations. Reasons that may contribute to the disruption to this community-based service include reallocation of health cadres to assist in COVID-19 response efforts such as testing and tracing cases, fear that *Posyandu* will create crowds, and presence of positive COVID-19 cases in the area. (CISDI, 2021).

In terms of financing and budget allocation for health, even though the budget allocation for handling the pandemic increased in 2021, budget reallocation policy has caused many problems. Financing for nutrition programs, for example, at the national level, after staying stable from 2015-2018, the semester budget for stunting reduction at the national level fell from 65.9% in semester 1 2019 to 54.6% in semester 1 2020 (Word Bank, 2021b). In terms of budget distribution within the Ministry of Health, the Directorate of Family Health has refocused more than 50% of its budget (including for Family Planning and Mother and Child Health), with implementation of activities such as training of health workers, policy dissemination, and program monitoring and evaluation shifting to virtual platforms and their funds reallocated for handling COVID-19. Directorate of Health Surveillance and Quarantine reallocated 80% of its budget for vaccine procurement and 20% for immunization. Refocusing of the budget for efforts to control COVID-19 resulted in a 23.3% reduction in the budget for other health programs, including for nutritional supplements at the Directorate of Public Health Nutrition. Health Operational Assistance (BOK) budget which is usually used for promotional activities is only allowed to be used for handling COVID-19, disrupting nutritional surveillance as a result.

Changes in the budget structure within line ministries were not followed by significant changes in overall health budget posture and seemed to not have clear priorities for transforming primary health services. Ideally, the budget for strengthening primary health services that cover aspects of health system is 65$ per capita per year or about $5 per month to produce the outcome of increasing life expectancy to 3.3 years by 2030 (Stenberg et al., 2019). Investments in *Puskesmas* are in the form of providing quality health resources, availability of essential tools and medicines, information systems, and budgets for both curative and preventive programs. In the last 5 years, the number of *Puskesmas* only grew 4.5% from 9,767 *Puskesmas* in 2016 to 10,203. Meanwhile, the number of hospitals grew

by 19.7% from 2,045 in 2016 to 2449 in 2020 (Kemenkes RI, 2021). The direction of health development does not reflect promotive and preventive paradigms in the overall expenditure on health spending. When viewed from the National Health Account of Indonesia in 2019, total health expenditure from all sectors, both government and private, was IDR 490.3 trillion. The budget for outpatient and inpatient care reached 66.6% and for preventive services only 17.1%. The remaining 10.5% was used for administrative and capital expenditure. In 2020, the health budget from APBN was IDR 67.01 trillion and 68.3% was used for health spending related to COVID-19. However, the budget spent on preventive efforts through testing and tracing was only 1.18% while the budget allocation for treatment reached 22.76% (Komaryani, 2021).

Evidence from countries such as Thailand, Brazil and Vietnam shows that well-developed primary health services have had a positive impact on the resilience of health systems and country testing and tracing capabilities during a pandemic (Tejativaddhana et al., 2018; Zulliger , 2018; Tangcharoensathien et al., 2018). It is unfortunate indeed that Indonesia—with a modality of more than ten thousand *Puskesmas*, a large number of health cadres and other health resources—actually has the ability to build a good health surveillance (testing and tracing) capacity. But because primary health care has never been a priority since before the pandemic, Indonesia was forced to build capacity while simultaneously deal with the pandemic. By 2022, the opportunity to transform primary health care with a focus on right intervention points must be seized. Transformative primary health services, supported by the National Health Insurance, are a way out of the pandemic that is sustainable as well as affordable for the government and for the public.

2.3 Impact of COVID-19 on Education

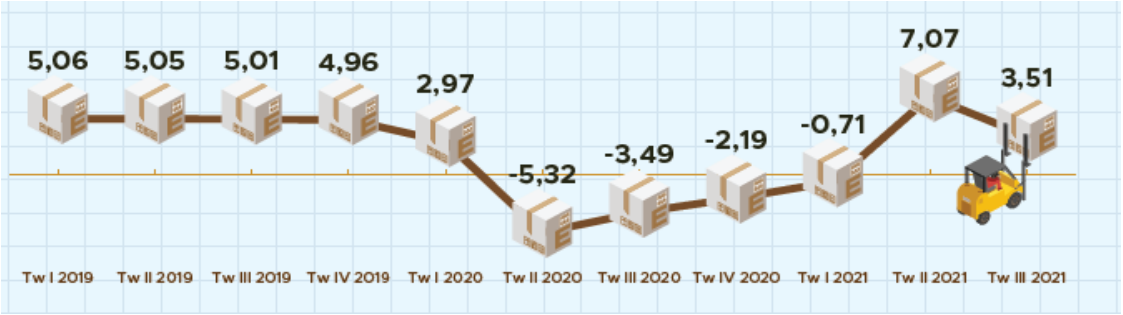
A revised education impact modeling by the World Bank (2021) estimated that school closures triggered by the COVID-19 pandemic could result in a loss of 0.9 and 1.2 years of learning or the equivalent of 25 and 35 PISA score points for reading skills. This rate of learning loss is related more to the effectiveness of distance learning than to the duration of school closure in investigation period. These changes to learning outcomes are expected to reduce student annual earnings by US$408 and US$578 in the future, which is equivalent to a lifetime lost income for all students between US$253 and 359 billion, or 24 to 34 percent of 2020 GDP.

2.4 Impact of COVID-19 on the Economy

If we look further at economic quarterly growth in 2020 and 2021 (see Chart 1), Indonesia experienced an economic recession with negative GDP growth (y.o.y) since Q2 of 2020 until Q1 of 2021. In the second quarter of 2021, Indonesia managed to get out of the recession since the

COVID-19 pandemic with a positive growth rate of more than 7% (y.o.y).[6,7] Large-scale social restrictions and high rates of death and illness during the second wave of COVID-19 in June-August 2021 have eroded the consumption drive for Ramadan and Eid al-Fitr as well as other stimuli that helped strengthen the economy in the second quarter of 2021. In the third quarter, economic growth showed 3.51% increase. Meanwhile, for the fourth quarter, the Minister of Finance predicts an economic growth of 5%.

Chart 1. GDP Growth per Quarter 2019-2021 (% y.o.y)



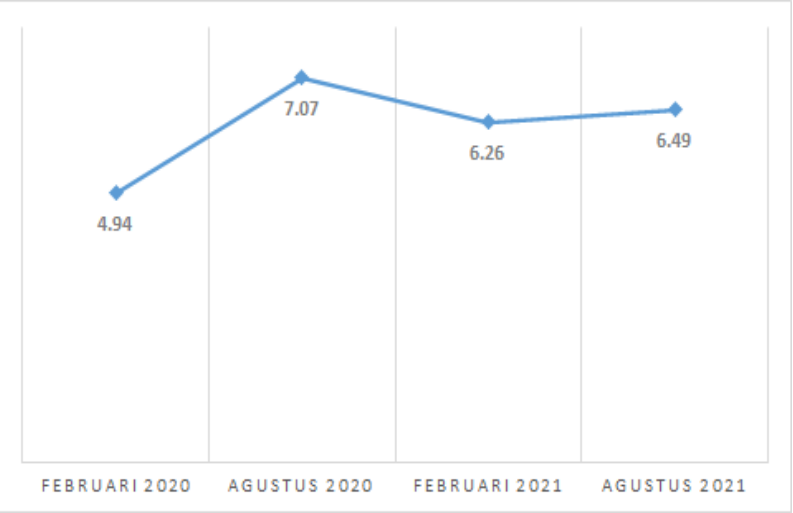
Source: BPS (2021a)

Estimates at the global level indicate that recovery in employment due to COVID-19 will take longer than economic recovery (output) (International Monetary Fund, 2021). Factors that may hinder recovery include continued focus on the health sector, the concentration of funds on social security of those affected by COVID-19, and accelerated use of automation in production due to social restrictions. In the case of Indonesia, it can be seen in Figure 3 that open unemployment rate rose quite significantly by more than two percentage points since February 2020 (before the pandemic) until after the arrival of COVID-19 pandemic in August 2020. Even though one year has passed since August 2020, open unemployment in Indonesia only decreased by about 0.5 percentage points in August 2021. This slow decline in open unemployment is in line with statistics that indicate there are 10.32% (21.32 million people) of working age population affected by COVID-19 from February 2020 to August 2021, which, among other, is due to termination of employment, exiting workforce, furloughed, and working with reduced working hours (BPS, 2021b).

[6] There are several possible factors that will encourage positive economic growth in the second quarter of 2021, including 1) easing of social restrictions, 2) increasing consumption of Ramadan and Eid al-Fitr, 3) launching of the economic recovery program (PEN) and disbursing funds for the 2021 social protection program, 4) COVID-19 cases which began to decline in the second quarter of 2021, and 5) the launch of a vaccination program for non-health workers since mid-February 2021 (LPEM, 2021; Nugraheny, 2021).

[7] However, although economic growth in the second quarter of 2021 is considered the highest economic growth in the last 16 years (Coordinating Ministry of Economy, 2021), this achievement is also due to the low base effect because Indonesia reached the lowest point of economic growth in the second quarter of 2020 (LPEM, 2021).

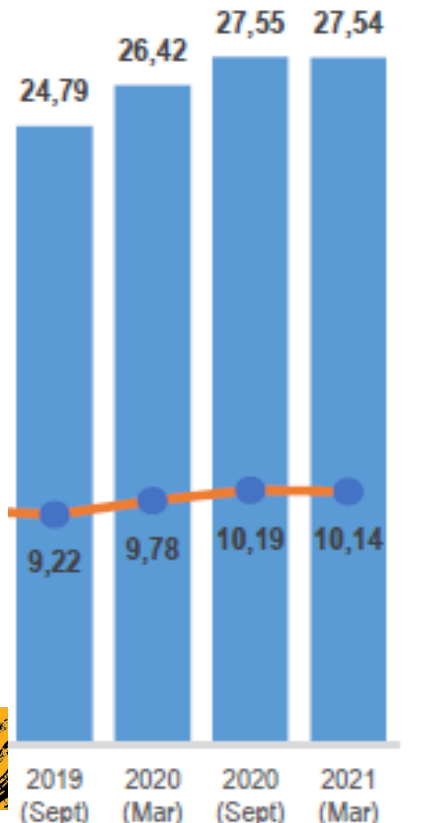
Chart 2. Open Unemployment Rate, February 2020-August 2021 (%)



Source: BPS (2021a, 2021b)

Although the pandemic has become a common scourge, everyone's experience is not the same. Directly, the health impacts of COVID-19 are borne disproportionately by marginalized communities and the lower middle class. For example, people at the lower economic levels have higher rates of infection and mortality from COVID-19. Thus, the long-term impact of COVID-19 infection (long COVID-19) that affects productivity or causes a loss of income affecting welfare, is greater in those populations (Ali, Asaria & Stranges, 2021). As a result, people who before the pandemic had already borne a greater economic burden face the consequence of falling behind even further. Clearly, inequality will become more acute.

*Chart SEQ Bagan * ARABIC 3. Number and percentage of poor people September 2019 - March 2021*



Indirectly, social distancing policies that have led to an economic recession and increased unemployment during the COVID-19 pandemic are closely related to increasing inequality and poverty. Marginal people who mostly work in the informal sector are more likely to become unemployed and experience a decline in income during the pandemic (Ali, Asaria & Stranges, 2021). As a consequence, the inequality gap widened and poverty grew during the pandemic. It is estimated that an additional 65-75 million individuals have fallen into extreme poverty in the world due to the COVID-19 pandemic (International Monetary Fund, 2021). In the case of Indonesia, Chart 3 shows that the number of poor during the pandemic in March 2020 increased by 1.63 million people compared to September 2019, which then increased again by 1.13 million people in September 2020 compared to March 2020. Until

March 2021, the number of poor in Indonesia fell only slightly compared to September 2021, so the government still needs to lift 2.75 million people out of poverty to return to pre-pandemic poverty levels.

2.5 Impact of COVID-19 on Social Conditions

Vulnerable groups such as children, youth and women now have to live under greater pressure during the COVID-19 pandemic. Ministry of Women's Empowerment and Child Protection together with the United Nations Children's Fund (UNICEF) noted that more than 25,000 children had lost one or both parents due to the COVID-19 pandemic (UNICEF, 2021).

Source: BPS (2021c)

Losing a parent or a caregiver makes a child more vulnerable in various aspects including psychosocial, neurocognitive, socioeconomic, and biomedical aspects. Psychosocial problems that can arise include depression, attempted suicide, violence, and exploitation. These problems are exacerbated if the child must be separated from their family and placed in foster care institutions. In addition, children who have lost their parents or primary caregivers are vulnerable to socio-economic problems in the short and long term. Poverty, dropping out of school, to risk of low income while growing up in the future haunt the children (Hillis et al., 2021, UNICEF, 2021).

Unfavorable conditions also encourage an increase in child marriage in some countries, including Indonesia. Long before the pandemic, Indonesia was already eighth among countries with the highest rate of child marriages in the world. During the COVID-19 pandemic, the National Commission on Violence Against Women (*KOMNAS Perempuan*) recorded a threefold increase in child marriage "dispensations" in 2020 (64,211) compared to 2019 (23,126). Marriage dispensation is a waiver issued by the religious court to prospective brides under the age of 19 to get married (Komnas Perempuan, 2021). Child marriage during the COVID-19 pandemic has the potential to bring a myriad of new problems and undermine the quality of future national human resources. In addition, child marriage carries the risk of undermining the child's learning process, causing economic losses to the country, increasing vulnerability to violence and divorce, as well as health risks to mothers and children (KOMNAS Perempuan, 2021).

Apart from children, the social and economic pressures that occurred during the pandemic, exacerbated by toxic social norms and gender inequality that had existed long before the pandemic, had placed women in ever more unfavorable conditions socially. Before the pandemic, 35% of the female population in the world had experienced various forms of violence, including physical and sexual. When social restrictions were put in place and the world was advised to stay at home for a extended periods, UN Women noted that approximately 243 million women in the world were victims of violence (Mlambo-Ngcuka, 2020). Another study confirmed a significant increase in the incidence of violence against women in countries around the world (Iesue, Casanova and Piquero, 2021). The increasing trend of violence against women also occurred in Indonesia during the COVID-19 pandemic, and it often takes place within the household (TNP2K, 2020; Komnas Perempuan, 2021).

Women who become heads of the household experience double burden. One in five women admit to feeling unhappy, stressed, and depressed (UNICEF, 2020). During the COVID-19 pandemic, female single parents are also more prone to depression due to changing home situations (PUSKAPA, 2020). Women must assume additional responsibilities while children are doing distance learning and work has to be done from home. 71.5% of households report that mothers have a role to accompany children during distance learning and only one in ten households considers that housework should be divided equally among all members of the household while most see that it is the responsibility of the female household members (UNICEF, 2020).

Despite widespread use of digital technology during social restrictions, it is not a substitute for people's social needs. For children, Learning From Home depend very much on the availability of facilities and how children and teachers are able to use them to conduct online learning (Mutaqinah & Hidayatullah, 2020). Mutaqinah and Hidayatullah (2020) continued on how this has had the impact on learning curriculum targets that were not achieved optimally. For workers, work from home (WFH) has negative impacts such as increasing the demand to multitask between home and office work, the need for additional resources, as well as technical communication troubles (Mustajab et al., 2020). This certainly affects productivity and output of workers.

Uneven internet access in various parts of Indonesia as well as socio-economic conditions are structural challenges for equitable use of digital technology. Higher percentages of households with internet access is mostly found in Java and very low in Eastern Indonesia (BPS, 2020). In addition, most internet users come from high-income households who can afford and have access to internet devices and subscriptions (Bachtiar et al., 2020). Both of these widen the digital divide—the digital distance between individuals, families, organizations, or geographic areas at various socio-economic levels based on access to information and communication technology and internet use (Purbo, 2017).

Microsoft's Digital Civility Index Report describes bad habits of Indonesian people in cyberspace, such as unwanted contacts; hoaxes and fraud; hate speech; and trolling (Microsoft, 2021). This can be caused by people's low digital literacy, including the lack of understanding of personal data protection and vulnerability to being influenced by hate speech and hoaxes (Priancha, 2021). On the other hand, good digital literacy can also provide good opportunities, especially for teenagers and young adults, for studying, interacting with friends, to economic benefits (Luthfia et al., 2020)

2.6 Impact of COVID-19 on Individual and Public Moral Conditions

Indonesia faces a threat of a moral catastrophe because of its policies for handling the COVID-19 pandemic and public's response to it. Incorrect policy approach, prioritizing personal interests and comfort, over safety of others, undermines public concern, eventually extending the pandemic. Social restrictions would inevitably need to widened as a result, injuring not only people's economies but also increasing the suffering of vulnerable populations which should be a priority in protecting against health and economic impacts of the pandemic. At the individual level, examples include refusing to

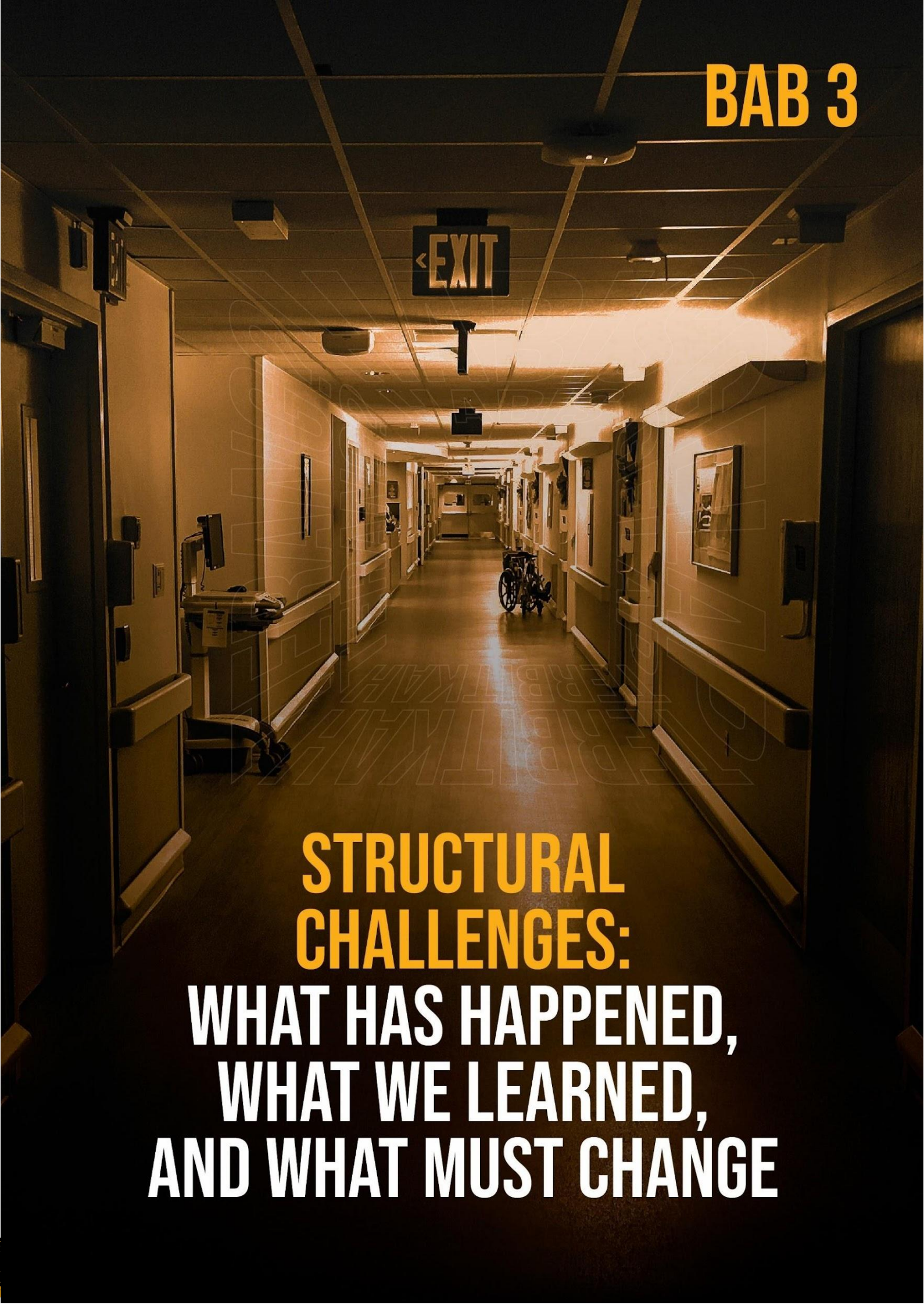
wear a mask, refusing to be tested while insisting on trivial gathering or travel, and refusing to isolate or quarantine after traveling even though able to afford it. On a national scale, unequal and unfair distribution of vaccines have allowed people with access who are not part of vulnerable population groups to get vaccines much faster and easier than those who actually need them more.

Amid the structural inadequacies of COVID-19 pandemic handling, the national leadership should be guided by a clear moral compass siding with humanity. The COVID-19 pandemic exposed a national democracy that is lacking in civility, with blatant examples of corruption in social assistance by public officials. Existing legal instruments do not provide for legal certainty and rule of law—there are always loopholes that can be exploited for expedient interest. Expressions of ethical misconduct caught in public sphere, highlighting shameless political elite rushing to claim success in the face of an unfinished pandemic.

The public has placed great hopes on scientists and health and medical experts to illuminate the handling of the pandemic. However, it is unfortunate that those who were expected to uphold reason through science and scientific evidence, are often trapped in a war of narratives, lacking clear scientific basis. Doctors and health professionals need to play a more dominant role in building public intelligence for health with high analytical capacity. Indonesian health and medicine was built on the spirit of activism and community, as exemplified by Dr. Cipto Mangunkusumo. Now is the time to evoke this moral example and apply it according to realities of the COVID-19 pandemic (Gamaliel, Saminarsih, Taher, 2021).

From a broader development perspective, policymakers have often taken steps that offend public sensibilities. The enactment of the Omnibus Law on Job Creation, the recent passing of State Capital Law are examples of how policymakers are not making the restoration of public health a priority. Entering the third year of the pandemic, the public are offered no hope for a new life where they can feel safe and their lives protected. On the other hand, non-health policies made during this pandemic relied mostly on short-term economic gain/loss calculations. It is not just for vulnerable and marginalized communities, the government needs to demonstrate its moral alignment with the MSME sector whose livelihoods and existence are increasingly getting squeezed out.

Improving policy direction with clear alignments in 2022 should be a priority, not only because it will take a long time, but also because good policies require sound moral judgment as well as technical accuracy to be implemented well at the national and community levels. The desired economic development will not happen if the population gets sick and dies. A resilient economy requires a strong, capable, and quality human resources.



BAB 3

STRUCTURAL CHALLENGES: WHAT HAS HAPPENED, WHAT WE LEARNED, AND WHAT MUST CHANGE

Chapter 3 | Structural Challenges: What Has Happened, What We Learned, and What Must Change

"Don't mistake activity with achievement."

— John Wooden

Chapters 1 and 2 provided an illustration of the government's failure to put public health as the main focus and priority of policymaking throughout 2021. Indonesia has proven to have failed to control infections which resulted in spillover effects in economic, social sectors and undermined its moral position with major consequences. The government's current strategy seems to rely on its projection that the epidemiological curve will eventually flatten on its own as infections wipe out so many people.

In this chapter we look again at government capacity to respond to the pandemic throughout 2021, using excess deaths calculations as an indicator of a pandemic response success. We have carefully reviewed each phase of the COVID-19 pandemic crisis to establish facts regarding structural failures of the pandemic response. These findings serve as the basis for projecting the possible course of the pandemic in Indonesia in 2022 (Chapter 4) and the basis for learning for improvement (Chapter 5).

Taking lessons from what went wrong, and paying attention to tactical steps that were successful, could provide valuable clues to put Indonesia get back on track to ensure public welfare. To that end, this chapter will highlight four major sections. First, we review the global impact of the pandemic, particularly on global health policies, and Indonesia's position in maneuvering in multilateral diplomacy. Second, we highlight the phase before the spike in cases in July 2021 when the government failed to make seriously preparations. Third, we emphasize how the government's response has lost its urgency and effectiveness. Fourth, we send a signal to emphasize that the government has misplaced complacency and this attitude can potentially derail efforts to sustain the pandemic response in the long term.

Deaths due to COVID-19 is one of the main indicators to measure the success or failure of a pandemic response. The key question is: how many deaths have been caused by COVID-19? Although it may seem like a simple question, the answer is actually quite complex as that response to

the COVID-19 pandemic is often hindered by various inefficient and outdated systems (Kliff & Sanger-Katz, 2020). Part of the complexity lies in the fact that there are many ways to calculate mortality from COVID-19. Is it about how many people have died from COVID-19 infection, or how many people died because, directly or indirectly, they were infected with COVID-19 (excess deaths).

By the end of 2021, the global death rate due to COVID-19 that was officially reported to WHO was 5.4 million lives (data as of 14 January 2022 shows nearly 5.6 million people died from COVID-19) (WHO, 2021a). While this is a very high number, it may not fully reflect the mortality due to COVID-19 for the following points: 1) Variations in health information systems and data collection capacities; 2) Variations in access to tests; 3) Differences in diagnostic capacity; 4) Definitions and standards in codification of deaths due to COVID-19; and 5) Incorrect attribution to the definition of death due to COVID-19 and vice versa.

WHO held extensive consultations with member countries so that excess deaths can be calculated using a mutually agreed methodology. This calculation is very important so that every country in the world can accurately calculate the health and economic impact of the pandemic. Furthermore, each country can also correctly set their political commitments and budget commitments needed to restore the competitive advantage lost due to the pandemic. Several models (The Economist, 2021; IHME, 2021; Our World in Data 2021) estimate excess mortality to be two to four times more than the reported deaths due to COVID-19 since 2020. Excess deaths from COVID-19 refers to number of deaths from all cases during the COVID pandemic that exceeds the number expected under normal circumstances (Checchi & Roberts, 2005). Not all countries have estimates of excess deaths due to lack of quality data.

The model for calculating excess deaths in Indonesia made by the Institute of Health Metrics and Evaluation (IHME) estimates that from 1 March to 26 September 2021, there was 270,000-405,000 deaths due to the COVID-19 pandemic within a period of 18 months, or 100-150 excess deaths per 100,000 population (Wang, 2021). These deaths probably would not have happened if a pandemic had not occurred, or if the public health system was better prepared for a pandemic response.

3.1 Global Health Disaster – will Indonesia emerge as one of the leading countries in multilateral diplomacy for global health?

The history of Indonesia's engagement in multilateral diplomacy can be traced back to formation of the United Nations. Some highlights of this engagement include: Alma Ata Declaration (1978), Astana Declaration (2018) Committee on Elimination of Discrimination Against Women (CEDAW), Framework Convention on Tobacco Control (FCTC), UN Climate Change Conference (COP), Millennium Development Goals (MDGs), to Sustainable Development Goals (SDGs). However, only a few were eventually applied and reflected in policies, regulations and national implementation. In fact, Indonesia has yet to ratify the FCTC despite its role as one of the proponents of the convention towards end of the 90s.

The pandemic turned the world into an arena of multilateral health diplomacy – with greater stakes. Each country was faced with expectations that they would have adequate diplomacy skills and technical mastery of global and national health policies to deal with other countries in multilateral health forums. This was very much needed in various pandemic negotiation forums, including International Health Regulation (IHR) Review Committee, a consultation platform between WHO and its member countries to review the relevance of IHR in pandemic conditions.

In March 2021, President Joko Widodo along with 24 other heads of state, wrote and signed a joint call on the pandemic treaty (WHO, 2021b). These 25 heads of state asserted that in order for the world to be ready to face future global health crises, a stronger WHO is needed; with better resource support from member countries. This call also urged global preparedness and pandemic emergency response, particularly Access to COVID-19 Tools Accelerator (ACT Accelerator/ACT-A). ACT-A was initiated by G20 countries and launched by WHO, the European Commission, France and the Bill & Melinda Gates Foundation. Indonesia's presidency of the G20 in the midst of pressures on ACT-A pillars from various countries can prove strategic to strengthen Indonesia's own position as a leader of multilateral diplomacy.

However, to open 2022, at the World Economic Forum, questions about consistency of Indonesia's support for multilateral health diplomacy started to emerge. In his speech, President Joko Widodo dismissed the role of WHO and proposed the creation of a new global health agency as an outcome of G20 negotiations. Such assertions can potentially threaten Indonesia's already very good standing among other countries, especially from the Global South, whereas, with its current G20 presidency, Indonesia is highly regarded in the global political arena, at least throughout 2022. With its influence, Indonesia is deemed to be in a position to soften the position of the G7 which has thus far failed to demonstrate any concern for vaccine equity. If Indonesia continues to be in this ambiguous position, the foundation of multilateral health diplomacy which has been laid during 2020 and 2021 may lose its meaning.

3.2 Pre-Delta Surge – Government failed to prepare seriously

Looking back on Health Outlook 2021 document, we recommended six measures to handle the pandemic that the Indonesian government needed to do: (1) Respond to the COVID-19 pandemic with testing, tracing, treatment, on the basis of transformative primary health care services, including individual health, public health, epidemiological surveillance, community empowerment, and cross-sectoral engagement; (2) Promote public behavior changes by providing an adequate enabling environment: policies, public communications, and infrastructure; (3) Launch a holistic strategy so that handling can be carried out quickly, drastically, and measurably; (4) Coordinate, communicate, ensure openness, and build trust between central and regional governments; (5) Adapt strategies with agility based on evaluations of mutually agreed science-based indicators, and providing feedback mechanisms; (6) Avoid false dichotomy that pits health and economy on opposite poles of outcome.

In the same document, we stated that Indonesia will not return to "normality" in the near future — a position that was produced from a thorough observation of pandemic handling. This is in contrast to the government's premature concept of "new normal" which was drummed up in early 2021. We asserted that Indonesia would go through four scenarios of pandemic waves throughout 2021, depending on two main drivers: (1) vaccine availability and (2) economic recovery. This was the reality that happened throughout 2021.

Considering events and drivers that occured during 2021, Indonesia was between scenarios 2 and 3 at different times between regions. In scenario 2, it was assumed that vaccines were available but the country had limited resources to purchase and distribute it to ensure equitable distribution. We predicted that this would happen, not only because economic conditions cannot immediately turn toward a positive direction, but also due to technical problems in vaccine delivery. On the other hand, the pressure to give economic stimulus will deter the government from imposing social restrictions and citiens from abiding by it.

The 20221 Health Outlook also reminded the government that the use of different types and efficacies of vaccines between regions could potentially compel the Government to increase vaccination coverage target. We appreciate that in 2021 the government did this. To overcome the distribution challenges, we recommended the government to seriously regulate the distribution flow of vaccines to adults, which still lacked the platform for it. The government could leverage the thousands of available *Puskesmas*, *UKBM Posbindu* and adult vaccination facilities in hospitals and clinics, as well as the Port Health Offices under the coordination of local Health Services.

We warned the government to not reverse course and insist on rolling out paid vaccines in on ad hoc vaccination centers as this will only widen the gap and add to administrative burden. Unfortunately, the government through the Ministry of Health issued MoH Regulation Number 19/2021 which was later widely rejected by the civil society. This MoH Regulation stipuated rules on the implementation of paid individual vaccinations through the *Gotong Royong* Vaccination scheme. This policy is in stark contrast to the promise of President Jokowi himself in December 2020, where he assured that COVID-19 vaccines would be free of charge (Sembiring, 2020). Only a few weeks later, this paid individual vaccination policy was revoked following the President's direct directives to the Ministry of Health (Cabinet Secretariat, 2021).

Instead, we urged the government to provide social assistance, stimulus, and protection to help people survive until they can get a vaccine according to targeting and priority setting scheme. In this regard, it is important to ensure that the Integrated Social Welfare Data is updated do to changin dynamics of national vulnerability. We also recommended using PCare database to determine priority targets based on past medical history, record coverage developments, record side effects, and treat them as electronic personal health records.

We predicted that some regions in Indonesia—which are relatively far from the capital, had high rates of COVID-19 transmission, with many vulnerable groups and limited health infrastructure to be able to detect and respond[8]— would be in scenario 4. In this scenario, vaccines are not available. The only thing that the government could do was to test and trace aggressively, which requires availability of extensive resource. Fiscal constraints, which are also common in these areas, may lead local governments adopting the most defensive strategy: relying on medical therapy for those who are symptomatic so that COVID-19 can be controlled as a mild disease for large parts of the population, preventing worsening of patient conditions in hospitals, and slowly allowing the population to build immunity after infection.

The year 2021 showed that only a few — if not 'none' — of the recommendations of 2021 Health Outlook were implemented. The government's sensitivity in responding to the pandemic was limited to policies for regulating social mobilization and quarantine. The drive to push for improvement was undermined by a flurry of changing tightening-easing and quarantine scenarios. Policies to restrict people's mobility changed names and formats so many times: PSBB, transitional PSBB, emergency PPKM, to four-level PPKM. All of these scenarios were carried out without strict enforcement as they were only based on Minister of Home Affairs Instructions, which is basically an appeal. And, of course, avoidance and dishonesty during social mobility restrictions also made it very difficult to trace infections. Indonesia, of course, could be better at executing its quarantine policies and travel restrictions. However, that is not the only option, and it is not the best option for dealing with a pandemic.

The government's mitigation strategy has proven unsuccessful as it departed from three naïve assumptions. First, the government assumed that people are willing and able to implement social restrictions without strict regulations and provision of incentives/disincentives. Second, that SARS-CoV-2 is an RNA virus that mutates 100 times faster than a DNA virus so that transmission will quickly foster immunity. Third, the government believed that health services are not limited despite a rapid increase in new cases. Yet, scientific evidence says that a strong health system is one that can supress mortality to below 1%.

Second, vaccination is very important, but just relying on it as a shortcut, and neglecting to test, trace, treat, isolate is really not prudent. Since the beginning of the pandemic it has been clear that transmission can only be controlled with a combination of various public health interventions carried out in parallel. The real, long-term, way to control a pandemic is to build a national health system to support epidemiological surveillance, anticipate spikes in cases, and protect populations from the risk of infection. The high vaccination coverage must be balanced with similarly high rates of testing and tracing. Only when all three are consistently implemented, easing scenarios can be considered.

[8]World Bank defines this region in COVID-19 Vulnerability Mapping Dashboard (2021).

The central government argued that low testing coverage was due to a change in tracing mandate to local governments. Meanwhile, there is no attempt to assist local governments to increase testing coverage, for example, by simplifying requirements for testing facilities in primary services or encouraging regions to implement MoH Decree HK.01.07/MENKES/446/2021 regarding the use of rapid antigen kits. As a result, during implementation of micro PPKM, for example, the government often claimed the transmission rate was flattening, even though national positivity rate was consistently above 5% with some regions at community transmission level 3 and 4 categories.

Central-regional tensions and centralization of policies executed via ad hoc institutions with minimal experience and knowledge of health policy; undermined the preparations in anticipation of surges. Dependence on personalities — rather than improving institutional structures — caused the Ministry of Health to fail to achieve its short-term (increase in recovery rates, decrease in fatalities) and medium-term targets (prepare logistical support, ensure equitable access to vaccinations, intervene in behavior change). Many aspects of governance were maintained despite their failures the year before, solely due to the subjective factor of President Jokowi's trust in personalities he deemed capable of handling critical issues (Taher, 2021), as well as political bargaining.

In addition, lack of synergy and coordination between ministries/agencies is also evident in the lack of innovation to the system and collaboration across ministries/agencies in efforts to handle the pandemic. In the case of vaccination of vulnerable groups, for example, although each line ministry/agency already has records on vulnerable groups, the Ministry of Health has not prepared any systematic way of reaching out to these ministries/agencies to target these groups.

Lack of knowledge and institutional capacity also undermined the role of local governments. Inconsistent or outright lack of political will of regional leaders has certainly affected the handling the pandemic in the regions. East Java presents an example of the poor data collection, defensive public communication, and utter neglect. The public can also recall the case of used antigen kits by Kimia Farma Medan at Kualanamu Airport and illegal vaccine corruption case in North Sumatra involving a civil servant and a doctor, as well as a civil servant in the North Sumatra Provincial Health Office. The Supreme Audit Agency (BPK) also found overpayments for several procurements, and irregularities in the profit of IDR 2.83 billion in COVID-19 pandemic handling activities in North Sumatra.

One concrete example of the suboptimal role of local governments is the low disbursement of COVID-19 handling budget in several regions. The Ministry of Finance and the Ministry of Home Affairs have recorded regions where the budgets for COVID-19 handling have not been disbursed and are still sitting idle in bank accounts. These regions include East Java, East Kalimantan, Central Java, Aceh, Papua, and North Sumatra. Whereas, the success of handling a national pandemic is highly dependent on regional innovations in designing and implementing service programs that can directly reach the community.

Experts and scientists have been given neither the visibility nor legitimacy to provide evidence-based views and advice to policymakers. Article 12 of Presidential Decree Number 7 of 2020 regarding Task Force for Acceleration of COVID-19 Handling, Article 13 of Presidential Regulation Number 82 of 2020 regarding KPC-PEN, and Circular (SE) of Minister of Home Affairs Number 440/5538/S.J are intended to regulate the form and space for participation of non-government elements. Unfortunately, technical guidelines to translate this mandate are yet to be issued. In the end, this leadership void from various sides is filled with non-science-based opinions from public figures and officials competing for the spotlight.

Accountability and transparency of all processes for handling the pandemic, from policy and budgetary aspects, to data and information, are also lacking. As a result, it is difficult for the public to gauge whether the government's efforts are designed to address the root causes of the problem or simply to respond to popular demands of elites.

Efforts to improve budget transparency in COVID-19 pandemic handling have not been carried out properly. The Indonesian Ministry of Finance has had a special dashboard related to the handling of the COVID-19 pandemic since 2020. However, this dashboard only contains general information regarding the legal umbrella of policies and releases from the Ministry of Finance press conference. More detailed information regarding the budget is not yet available (Open Government Indonesia, 2020), despite the obligations and public demands for transparency of information for proper and comprehensive budget management, including planning, implementation, and reporting, to prevent budget misuse. Cases of social assistance funds corruption indicate strongly how the budget is vulnerable to misuse if it is not managed with transparency.

Details of the budget for COVID-19 handling, both central and regional, are also difficult to access. The Indonesian Forum for Budget Transparency (FITRA) reported this difficulty when trying to access data on reallocation of Regional Budget (APBD) for handling COVID-19 in the regions from the Ministry of Home Affairs (Open Government Indonesia, 2020). At the regional level, many regional governments have not provided a special budget dashboard for handling COVID-19 that can be accessed by the public (Open Government Indonesia, 2020).

According to Inter-Parliamentary Union (IPU), the pandemic crisis has tempted some countries to take shortcuts in the name of emergency that endangered the sustainability of democratic practices (IPU, 2020). Such problems should have been anticipated by strengthening the oversight, legislation, and budgetary functions of the parliament, as well as law enforcement by competent authorities.

In fact, the legislative checks and balances function in the parliaments is virtually non-existent. This problem began with ratification of the Government Regulation in Lieu of Law (*Perppu*) regarding Financial Policy for Handling of COVID-19 Pandemic into law by the National Parliament (DPR) by acclamation. This Regulation-in-lieu-of-Law was passed without any deliberation by the DPR without

paying any regard to how the president's powers would increase in regard to changes in budget posture in the National Budget (APBN) (PSHK, 2020). The DPR, as a legislature, is expected to provide a counterweight, instead of being an institution that only legitimizes government policies without exercising its control function (PSHK, 2020). The Constitutional Court ultimately granted part of petition for judicial review of Article 27 of Law Number 2 of 2020 regarding Stipulation of the *Perppu* on COVID-19. Civil society considers this decision very important to assert that the government (especially Financial System Stability Committee) should not be immune to lawsuits related to budget management during the COVID-19 pandemic (Tempo, 2021).

Supervision of procurement and distribution of social assistance was paralyzed. The public's concern about the risk of embezzlement of social assistance funds was evident when KPK finally arrested Social Minister Juliari Batubara, other Ministry of Social Affairs officials, and a private actor for alleged corruption in the provision of social assistance for COVID-19 handling. In this case, it was alleged that suppliers of goods did not meet qualifications set by LKPP. In addition, ICW also noted that the commitment-making official appointed by the Minister of Social Affairs, Juliari, owned one of the companies that provided food social assistance (*bansos*) (ICW, 2021). Nepotism that occurred was not only caused by weak supervision by the Government Internal Supervisory Apparatus (APIP), but also lack of space for civil society oversight due to lack of disclosure of procurement information (ICW, 2021).

Non-inclusion of the Ministry of Women's Empowerment and Child Protection (KEMENPPA) into KPC-PEN structure shows the government's lack of sensitivity to the intersectionality of gender issues and the pandemic. *Komnas Perempuan* noted that cases of domestic violence against women rose sharply in 2020, up to 79% of all cases of violence against women (*Komnas Perempuan*, 2021). This problem is compounded by the vulnerability of female heads of household who had lost their jobs, which affected their quality of life and welfare. Violence against children also increased by 15% in 2021 (UII Faculty of Law, 2021), while the quality of life of children decreased along with increasing number of children who lost their parents due to COVID-19 as well as learning loss. Unfortunately, the above statistics are not enough to compel the government to produce gender-responsive policy enablers in the midst of efforts to overcome the pandemic.

3.3 Government's response lost momentum and is ineffective

Throughout the PPKM Emergency period, daily cases and national death rates continued to hit record highs. However, in the midst of soaring cases during July 2021, the government was busy debating a choice terms between "overcapacity" and "collapse" in describing the condition of health services at that time (Putri, 2021). According to data from the COVID-19 Handling Task Force, from June to the peak of the second wave on 24 July 2021, active cases rose by 466 percent (Kompas, 2021). This caused many health services to functionally collapse due to increasing number of patients who must be treated and the number of health workers exposed to COVID-19 (Rahajeng, 2021).

During this period, it was clear that the handling of COVID-19 was carried out without a concept of protecting integrity of National Health System. The pandemic response was hospital-centric and does not put primary healthcare at the frontline of public health.

The Indonesian government's handling strategy relies on appeals for restrictions without enforcement. The PSBB scheme was also not accompanied by aggressive testing and tracing. Failure to identify exposed and unexposed people caused transmission to soar almost out of control.

Inequity killed many people in 2021. The spike in active cases and deaths from COVID-19 in mid-2021 prompted the government to start mass vaccinations targeting the general public amid limited national vaccine supplies. Although this policy could have had a good impact, it also had the potential to distract the focus from completing vaccination targets for the elderly and vulnerable groups (CISDI & PUSKAPA, 2021). Lack of any significant progress in the vaccination of vulnerable groups was in line with the lack of standard definition of vulnerable groups in the regulation and vaccination procedures for vulnerable groups made by the government (CISDI & PUSKAPA, 2021).

Health services are not yet inclusive for groups who are often socially excluded. They include: the poor, disabled, and gender minorities. Having an identity card (KTP) is often an administrative requirement to be able to access health and social services during the pandemic. Dozens of transwomen in Yogyakarta died due to denial of their rights to health during the pandemic (Kumparan, 2021). The main factor include difficulties in accessing health services, which should be a prerequisite for recognizing human dignity (LBH Yogyakarta, 2021). Recent research utilizing data from 2014 Indonesian Family Life Survey also shows that the poor and those with low education have more difficulties in accessing health services in Indonesia (Mulyanto, 2019). The biggest gap is in the use of secondary health services, such as outpatient and inpatient care, as well as preventive services such as screening and medical check-up for cardiovascular disease (Mulyanto, 2019).

Signs of inconsistency continued, even in crisis situations. For example, the government assembled and dismantled mobility policy four times in the span of two weeks. Not only that it was inconsistent in its implementation, this policy also contradicted the COVID-19 Task Force Circular Number 17 of 2021, the highest reference for domestic travel provisions. The Minister of Tourism and Creative Economy, Sandiaga Uno, offered an explanation that this policy tug-of-war actually shows how the government is "adaptive" in its governance.

Policy inconsistencies will only hinder society from adapting to behavioral changes, undermine public trust, and reduce public sensitivity to the pandemic (Saechang, Yu & Li, 2021). A research entitled Grave Failures in Policy and Communication in Indonesia during the COVID-19 Pandemic explains that the government's policy communication strategy is plagued by cognitive dissonance, ambiguity, denial, and is not based on principles of risk communication. This situation was also marked a lack of

transparency of information by the government regarding risk factors that the public faces (Nugroho & Syarief, 2021).

The lack of effective risk communication created a situation where some people did not grasp the urgency of the problem at the time when cases were spiking, with some refusing the consequences of the policy. Previously, a study by SMERU found that the public's perception of risk and adaptability to pandemics tend to be low due to limited knowledge, distortion of information, and policy misalignment (SMERU, 2020). As a result, public perception of the risks of the pandemic blurred and desensitized. Several studies found that this choice of communication strategy was mainly driven by electoral politics which explains the officials' "tentativeness" in their communication, aiming to avoid public panic which could disrupt political stability.

3.4 There is a misplaced complacency — The government is too complacent and claims success

By the end of 2021, based on statistical calculations, COVID-19 conditions in Indonesia showed an improvement with a downward trend in COVID-19 cases. According to the Centers for Disease Control and Prevention (CDC), at end of October 2021 Indonesia has entered the green zone category: a 23% decrease in weekly trend of new cases and a decrease in the number of deaths by 16% compared to the previous week (Kemenkominfo, 2021). This downward trend continued to show consistency until the first week of November, where active cases decreased by 12.2% and the number of deaths decreased by 31.7% (COVID-19 Task Force, 2021). PCR, TCM, and Antigen positivity rate was reported at 0.57% in October. Meanwhile, by 22 November 2021, the positivity rate has dropped to 0.2% (Ministry of Health b, 2021). By early November, the COVID-19 bed occupancy rate (BOR) was 3.74%, dropping further to 3% in the third week of November. Meanwhile, for ICU use, the BOR was at 25% for first week of November. The downward trend continued, where in early November the death rate was 0.07 per 100,000 population per week, by the third week of November it decreased to 0.03.

However, with second dose vaccination rate only reaching 40.42% as of 17 November 2021, it is rather curious why did Indonesia actually experienced a decrease in cases. Steenhuysen (2021) in a Reuters article stated that countries experiencing an earlier surge had the advantage of a combination of immunity from high vaccination coverage and natural immunity post-vaccination. IHME (2021) estimates that 50% of Indonesians have been infected with COVID-19 – not something to cheer about – so with 40% coverage of the second dose vaccination it is suspected that there is already good enough immunity to bring COVID-19 under control.

Transmission/infection will end when immunity is successfully formed. However, given a continuous emergence of new variants, this is almost impossible to achieve. The example is the flu pandemic in 1918 comes to mind, with cases of the common flu that are still found and have the potential for new outbreaks at any time. This example shows how controlling infectious diseases can take a long time. Historically, only smallpox has been successfully eradicated with the help of vaccination in 1980.

Achieving herd immunity means keeping disease transmission at a controlled rate. According to one source, with the Delta variant having an Effective Reproduction Number (Rt) of 5, and with vaccine effectiveness not reaching 100%, at least 90% of population must already have immunity to achieve herd immunity (Riu & Rocklov, 2021). Thus, Indonesia should not feel relieved at this point.

In the context of COVID-19, herd immunity will be difficult to achieve and there are several factors that contribute to that, according to Aschwanden (2021) in Nature magazine. First, there is no clear evidence that vaccines can prevent transmission. Vaccines, such as the ones produced by Moderna and Pfizer Biontech, performed well in preventing severe symptoms and reducing risks, but the risk of infection in people who had received the 2-dose vaccine remains, especially for the highly virulent variants such as the Delta. This can be caused by two things, namely, decrease in immune effect caused by the vaccine and the ability of the Delta variant to evade antibodies formed in the body.

Second, the distribution of the vaccines has not been even. At a time when 70% of high-income countries have administered full-dose vaccines to 40% of their population, Africa has only reached 6% (WHO AFRO, 2021). Infectious diseases would be difficult to control when there are still areas without immunity. Mutations can continue to occur among people who have not been vaccinated.

Third, the potential for new variants emerging remains. A new variant, new Delta sub-variant AY.4.2 has led to a significant increase in cases in the UK. Early studies showed that the A.Y.4.2 sub-variant was transmitted 12-15% more frequently in family members compared to the early Delta variant (Mishra, 2021). However, further studies are needed to determine whether this variant is more contagious and causes more severe symptoms than the initial Delta variant. In addition, a new variant of B.1.1.529 was found in South Africa with many mutations and is feared to be more infectious than Delta with the ability to evade current immunity. WHO recommended to implement travel restrictions from several countries in Africa to anticipate the spread of the variant B.1.1.529 (The Guardian, 2021).

Fourth, immunity may not last long. Israel was one of the earliest countries to start vaccination in December 2020. After most Israelis had received two doses of the vaccine, in early June 2021 Israel showed a significant increase in cases. The Israeli government took action by giving boosters to the elderly population. This appeared to be effective for controlling COVID-19 cases in Israel (Bar-On et al., 2021). However, giving booster vaccines to the general public at a time when other countries are still struggling to provide the first dose of vaccine is moreally dilemmatic and is not recommended by WHO.

Chart 4. Decreasing efficacy of vaccines against symptomatic infection (Study in UK)

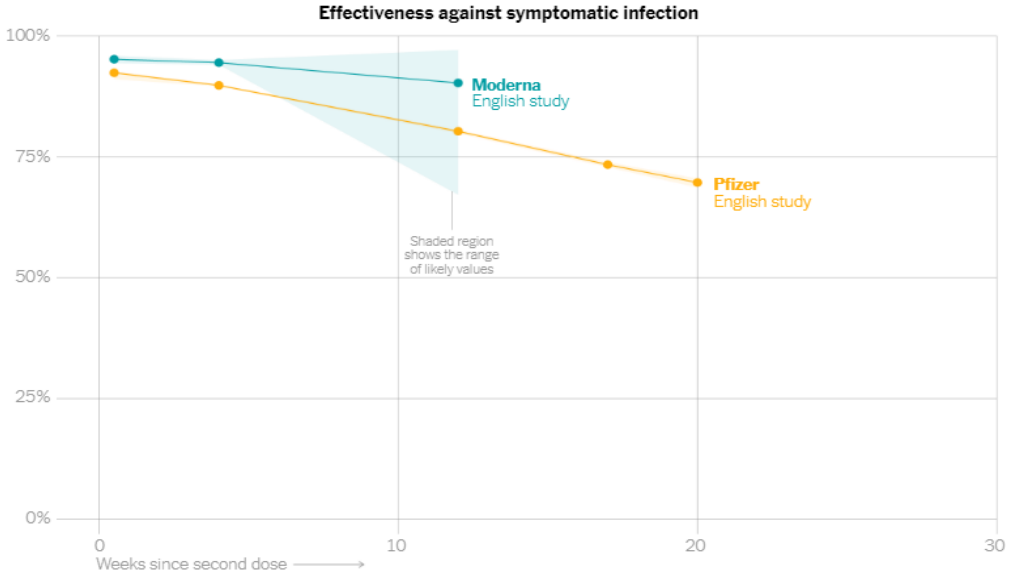


Chart 5. Decreased efficacy of vaccines against any infection (Studies in America and Canada)

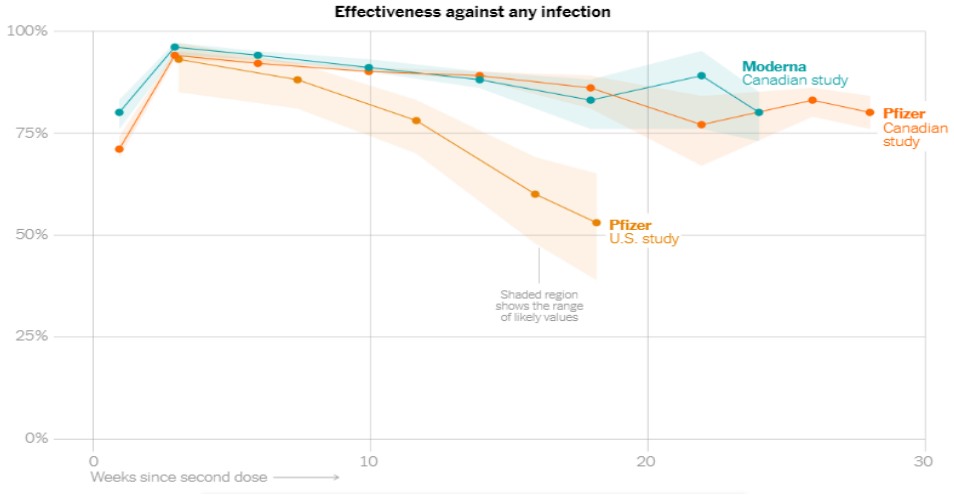
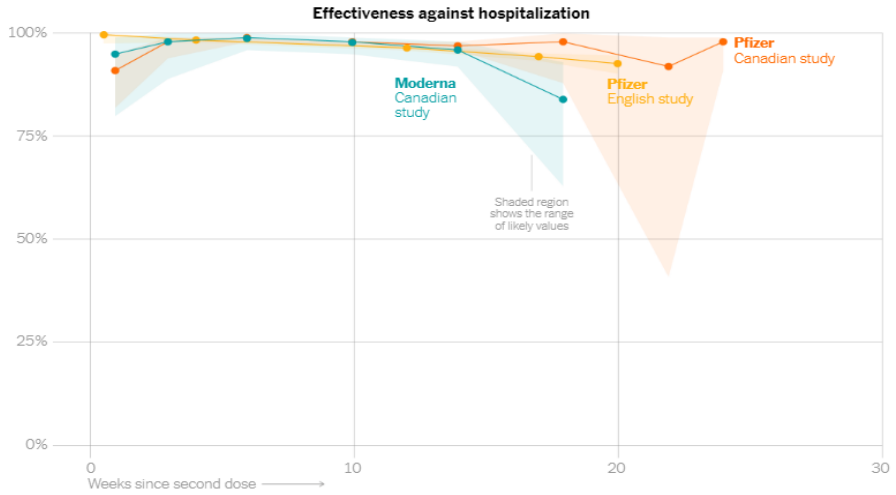


Chart 6. Efficacy of vaccines is stable for reducing risk of hospitalization due to COVID-19



Source: Walker & Holder (2021)

The image above shows a decrease in the effectiveness of Pfizer and Moderna vaccines against infections and symptomatic infections. However, it is still quite effective at reducing the risk of hospitalization due to COVID-19 infection. Decreased effectiveness is also known to occur for Coronavac and Sinopharm vaccines. Opass Putcharoen, an infectious disease expert stated in Nature magazine that three months after administering the second dose of Coronavac and Sinopharm vaccines, neutralizing antibodies fell to 12% (Mallapaty, 2021).

Although a decrease in neutralizing antibodies cannot necessarily be interpreted as a decrease in immunity, it can still be unfavorable for immunocompromised individuals and the elderly. Vaccines cannot work optimally in both conditions, so they rely more on neutralizing antibodies than the immune response produced by B-lymphocytes and T-lymphocytes. Indonesia, as the largest country outside China that uses Coronavac and Sinopharm vaccines, having administered 200 million doses of the vaccine, needs to immediately provide a booster for the elderly over the age of 60 years as recommended by WHO (SAGE on Immunization, 2021). However, vaccines still provide benefits by reducing the number of deaths and reducing the chances of virus mutation in populations with good vaccine coverage. Therefore, the speed of vaccination must be maintained and strive to achieve a more even distribution of vaccines for all.

BAB 4

WHERE DO WE GO AFTER THIS?

Chapter 4 | Where do we go from here?

"The best way to keep something bad from happening is to see it ahead of time...
and you can't see it if you refuse to face the possibility."
— William S. Burroughs

The world entered 2022 dizzy and tired. On 24 November 2021, WHO declared Omicron as a Variant of Concern (VoC) with a faster incubation period, higher transmission rate, and ability to infect individuals that have had full-dose primary vaccination. The spread of the Omicron variant will force all countries, including Indonesia, to reconsider hopes for coexistence with SARS-CoV-2. The emergence of Omicron in the midst of the Delta variant dominance still circulating in Indonesia; public fatigue; and vulnerable communities who find it increasingly difficult to protect themselves; paints a vivid picture of the the deep and wide effects of the pandemic that has taken millions of lives.

The National Health System is a bulwark protecting the population from even more catastrophic destruction, now entering the third year of the pandemic. Planned reforms must be carried out with a systems approach, not sporadic, and not half-hearted. It must be realized, however, that an overhaul still requires priorities or a landing point. Given the increasingly limited resources after the pandemic, the choice to reform the health system will have a lasting impact when considering cost effectiveness and affordability. This is why primary health care must address questions about reform priorities of the national health system. Not merely solving acute or emergency problems, the success of primary care transformation also has a long-term impact and improves the primary health service ecosystem to be better than before the pandemic. The modality of Puskesmas numbers, the strength in the number of health human resources, the number of health cadres with a network embeded in communities are among the main elements to ensure the success of reforms.

Projections of COVID-19 cases show a continued increase in cases due to the Omicron variant until April 2022 (Chart 7). Currently available preliminary data show that Omicron has a higher transmissibility compared to the Delta variant and is able to evade antibodies developed by full-dose or booster vaccines. Preliminary data based on conditions of patients in South Africa suggest that patients with the Omicron variant exhibit symptoms with a lower severity than Delta. However, further data from cases in the United States and Europe show that the severity is influenced by vaccination

status as well as other comorbid conditions. The risk of reinfection is estimated to be 3-8 times higher than previous variants (Ries, 2021).

According to this projection, the number of cases of the Omicron variant in Indonesia will be lower than in several other countries, such as the UK (Chart 8). Indonesia is expected to start experiencing an increase in cases at the end of January 2022. COVID-19 cases in Indonesia will continue to increase until April 2022 but more data is needed to determine the projected peak of cases in the third wave. The UK is expected to see a significant spike in cases in January. Meanwhile, for Indonesia, it is projected that the increase in cases until April will exceed the peak of the second wave in July 2022.

Is the above prediction the only plausible future? Unfortunately, according to the evidence collected to date, it is still difficult to determine a scenario for an end of the pandemic. Based on data and observations of dynamics and patterns from the previous two waves, as well as the pattern of increasing cases of the previous Delta variant, there are at least four main factors that influence the transformation of COVID-19 into an endemic disease: 1) Emergence of possible new Variants of Concern of the SARS-COV-2 virus; 2) Vaccine availability to achieve necessary coverage of complete primary dose and booster dose; 3) Availability of antiviral oral therapy; and lastly 4) Various public health interventions made by the government, as well as the public's response to comply with them.

Chart 7. Projected Daily Cases of COVID-19 in Indonesia until April 2022

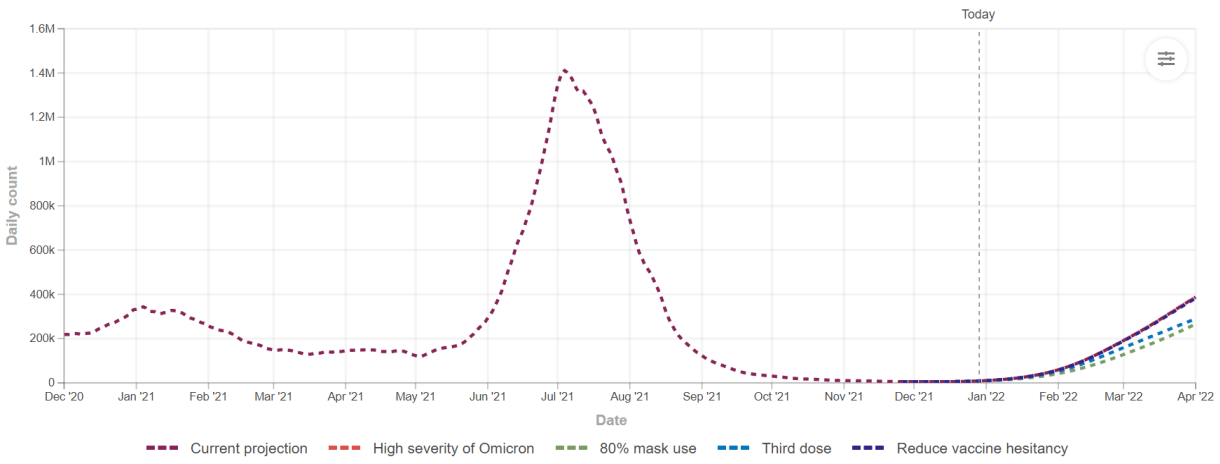
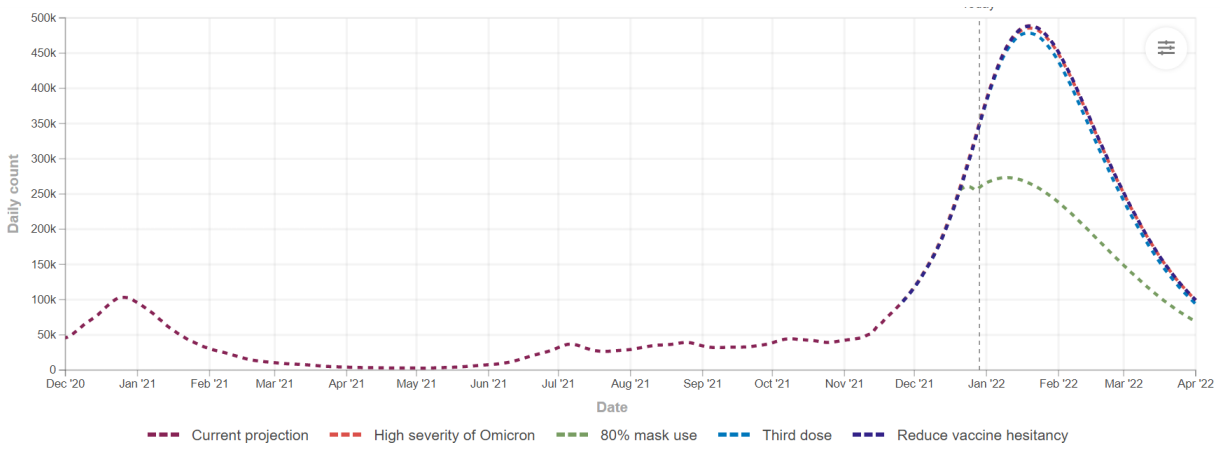


Chart 8. Projected Daily Cases of COVID-19 in UK until April 2022



Source: https://covid19.healthdata.org

4.1 Alpha, Beta, Gamma, Delta, then Omicron — will there be more variant mutations?

Throughout 2021, WHO has announced the emergence of five VoCs of the SARS-CoV-2 virus. These VoCs are considered of concern because mutations that occur in these variants cause a faster spread, increase the severity of disease, or have the ability to evade antibodies formed by the vaccine. The five VoCs are Alpha, Beta, Gamma, Delta, and the latest, Omicron, which was newly named as a VoC in November 2021.

The Delta variant that triggered the second wave of infections in Indonesia, with increasing transmission rates and increasing disease severity, continues to mutate. Variant B.1.1.529 or Omicron was declared as VoC by considering its: (1) rapid transmission rate; (2) high mutation rate; and (3) high reinfection rate (WHO, 2021).

Even until January 2022, researchers did not feel that they have fully understood the Omicron variant. What is known for certain, Omicron is a variant that has the highest number of mutations compared to other variants.[9] Mutations in the Delta variant significantly increased its transmissibility, effect on immunity, and severity. As for Omicron, it has been established with certainty that Omicron is able to evade the body's immunity, thereby increasing the risk of reinfection for the vaccinated group (immune evasion). Until recently, Omicron's ability to cause illness was rated lower than Delta's. Recent findings show that Omicron tends to infect the upper respiratory tract, not the lungs, so there is less risk of pneumonia that requires intensive medical assistance. However, this fact does not rule out the possibility that a massive spread of the Omicron variant might cause a spike in cases that will create a societal disruption, overwhelm the health system and cause national economic growth to slow down again.

[9] 50 mutations in Omicron, while Delta only 9 mutations. (Kuchipudi, 2021)

According to a WHO report, as of 6 January 2022, the Omicron variant had been found in 149 countries worldwide (WHO, 2021b). Currently available data indicate that the Omicron variant poses a lower risk of hospitalization and mechanical ventilation requirements than the Delta variant. It is important to remember, however, that current evidence on severity and hospitalization comes mostly from countries with already high levels of population immunity. There is still much uncertainty about the severity of Omicron in populations with different vaccination coverage and previous exposure to other variants.

Indonesia announced its first case of Omicron on 16 December 2021. Based on tracing results of the first case using S-Gene Target Failure (SGTF) method, the Ministry of Health found around 60 positive cases and is currently waiting for confirmation of sequencing at Wisma Atlet Hospital. The Ministry of Health's search at several border entrances managed to identify 14 suspected cases of Omicron through the SGTF test and is still waiting for sequencing confirmation. As of the writing of this document (24/01), there have been 1,626 confirmed positive cases of Omicron in Indonesia, with two deaths.

Table 1. Characteristics of the Omicron variant

Aspect	Characteristics	Implication
Transmission and Infection	This variant has a higher transmission rate than the Delta variant. An exponential increase in cases can be achieved in just 1.5 - 3 days (WHO, 2021).	High transmission rate has the potential to disrupt and overwhelm essential health care systems, both at primary and secondary levels (WHO, 2021) Rapid rate of transmission makes unvaccinated individuals very susceptible to exposure.
	Incubation period for the Omicron variant is in shorter, about 3-5 days (WHO, 2021)	
	The majority of cases of the Omicron variant are cases of re-infection, also infecting individuals with full-dose primary vaccination	
Severity	Currently, the severity of the Omicron variant varies from asymptomatic, mild, requiring intensive care and death.	Increase awareness and preparedness to face the risk of spike in cases caused by the Omicron variant.
	There is not enough evidence to conclude that the Omicron variant is no more dangerous than the Delta variant (Imperial College London, 2021)	
	Increased hospitalization of children due to the Omicron variant in South Africa (CBS News, 2021).	

Aspect	Characteristics	Implication
Vaccine Effectiveness	Preliminary studies in the UK showed a significant decrease in vaccine effectiveness against the Omicron variant compared to the Delta variant, both in Pfizer and AstraZeneca vaccines (WHO, 2021b)	Decrease in effectiveness of some vaccines presents a risk of reducing the government's ability to control the pandemic Decrease in vaccine effectiveness prompt developed countries to implement booster vaccine policies that have the potential to disrupt the global vaccine supply chain and widen the gap of inequality for developing countries and the third world Existence of the Omicron variant presents an urgency for the government to fulfil a complete primary dose 1 and 2 vaccination program amidst uncertainty of global vaccine supply
	Preliminary studies in South Africa show reduced effectiveness of Pfizer vaccine against the Omicron variant (WHO, 2021b)	
	Preliminary studies in Hong Kong found the Omicron ability to evade antibodies developed by the CoronaVac vaccine (Lu et al., 2021; Cameroni et al., 2021).	
Detection and Tracing	Omicron variant can be detected by PCR test through S-Gene Target Failure (SGTF) examination. Countries with low sequencing capacity can use the SGTF method for screening Omicron	The government must be transparent to the domestic public and GISAID regarding findings of the Omicron variant, both probable cases detected through PCR and confirmed cases through genome sequencing Increase the capacity of domestic genome sequencing, especially in areas of international entry
	Confirmation of Omicron cases must still be carried out using Genome Sequencing method	

Like other viruses, SARS-COV-2 will continue to evolve/mutate as long as the virus continues to spread. The world certainly hopes that a surge in new cases around the world due to the Omicron variant does not have a detrimental effect on survival or the health system, until COVID-19 could finally turn into an endemic disease in 2022. Unfortunately, experts are pessimistic that Omicron will be the last VoC. The wider the spread of SARS-CoV-2, the greater the pressure for the virus to mutate. Looking at the unequal distribution of vaccines in the world — both between countries and within countries — virus mutations will continue, and it is not impossible that it could become a variant that is more dangerous and more easily transmitted. Of the five VoCs so far announced by WHO, only one variant has seen a de-escalation, namely the Alpha. The rest are still spreading and circulating with other variants.

The emergence of VoC in Indonesia can also be a game changer. Unfortunately, Indonesia's genome sequencing capacity is still relatively low. If virus genome sequencing can be done quickly and on a large scale, epidemiologists and public health authorities can better understand how the virus spreads and evaluate the effectiveness of interventions. It can also help to determine whether a new variant can be associated with a particular pattern of symptoms or disease severity. In the long term, tracking

new variants is very important to ensure that vaccines, while in the development process, can be kept up-to-date with currently circulating virus strains.

According to the Eijkman Institute, Indonesia's sequencing capacity should ideally be at 4,000 tests per month. Meanwhile, according to the Ministry of Health, Indonesia's sequencing capacity stands at only 1700-1800 tests per month (Alfiansyah, 2021). This lack of capacity often makes Indonesia late in detecting whether new cases are imported or already locally transmitted.

4.2 Availability and equity of vaccines to contain mutation rates

Weak surveillance and enforcement of protocols due to high social costs compelled Indonesia to only rely on vaccination to reduce the rate of COVID-19 transmission. Mask mandates, maintaining distance, ventilating indoor air, managing travels and necessary outside activities along with various mitigation measures including quarantine, consistent testing, tracing, treatment, and vaccination — all must go hand in hand, not choosing only one.

COVID-19 vaccination is indeed a form of defense that can be effective against this long pandemic, but only if it is given evenly to all who are entitled in the right dose. In the midst of the global COVID-19 vaccination gap, viral mutations are inevitable. The emergence of the Omicron variant in South Africa is proof that inequality in vaccination coverage in the world allows the virus to continue to spread and evolve. Since the emergence of Omicron in South Africa, Global Vaccine Equity has been pun under the world's spotlight. Rich countries have been criticized for purchasing more vaccines than they need, while poorer countries must wait longer to get enough vaccines.

The government responded to the threat of the Omicron variant, with its complex mutations and high transmission rates, with special policies for the elderly and vulnerable populations, such as BPJS-K contribution assistance recipients (PBI). As of writing of this document, there is a signifianct gap between vaccine coverage in big cities such as Jakarta (dose 2 more than 100%) and eastern regions, such as Papua (dose 2 only 20.47%). National data shows that vaccine 2-dose coverage has only reached 54.51%. LaporCovid-19 (2021) still receives reports of difficulties to access vaccines among populations. Between August to mid-December 2021, there were at least 308 reports related to difficulties with the national vaccination program, including difficulties to register and lack of information on the availability of vaccines, pushing people to search independently. Additionally, reports also indicate poor governance of vaccination in the field, including in the administration of data collection and registration for vaccination programs.

Equitable access to the first two doses of vaccination depends on vaccine supply and distribution capacity and vaccination services. To determine the exact number of doses requires us to continue monitoring scientific developments closely. The spread of the variants of concern necessitates administration of a third or booster dose (SAGE, 2021). Latest scientific evidence supports the

probability that the sufficient dose of the COVID-19 vaccine is three injections, which could make the notion of boosters as optional mistaken, thus having an adverse effect on developing the proper pandemic response in the country. If this is true, travel regulations during the pandemic will depend on the government's ability to reorganize full-dose vaccination coverage for all.

The need for additional doses is a global and national dilemma. Many countries as well as regions within countries have not met the two-dose (primary) vaccination target. Ideally, determining booster vaccination priority should be based on scientific evidence regarding period of decreased immunity from the primary dose vaccination, effectiveness of the administered vaccines, to focus giving booster vaccines to most vulnerable populations, such as the elderly over 65 years and patients with impaired immunity (SAGE, 2021). However, in reality, vaccination policy often becomes entangled in political matters and vested interests, and often the priority is skewed to populations that are easiest to reach.

4.3 Availability of oral therapy for COVID-19 patients

In addition to vaccination, the availability of antiviral oral drug therapy for COVID-19 patients is also a factor that influences the transition of COVID-19 into an endemic disease. Oral antiviral therapy can reduce the risk of developing severe COVID-19 symptoms and prevent hospitalization. Patients with mild or moderate symptoms can take this antiviral drug at home without having to be hospitalized. This antiviral therapy can reduce the burden of hospital care when there is a spike in cases.

In 2021, two oral antiviral therapies for COVID-19 that were developed by Merck and Pfizer, i.e. Molnulpiravir and Paxlovid, have undergone clinical trials and received emergency use approval (EUA) from the Food and Drugs Administration (FDA) of the United States of America. Based on the latest statement from the Minister of Health, these two drugs have been ordered for treatment of COVID-19 patients in Indonesia. They are expected to arrive in January 2022 and will soon be available in pharmacies. However, the government must ensure that this oral antiviral therapy is evenly available and reach all patients who need it.

In the 2020 Health Outlook, we warned that the availability of essential medicines is one of domestic policy issues that need to be resolved. Without significant breakthroughs, the distribution of the antiviral COVID-19 drugs will face the same barriers. First, the cost of buying medicines in Indonesia reaches 33-44% of total health expenditure and out-of-pocket spending is mostly spent on buying drugs at private pharmacies. A survey on medicine prices conducted by Health Action International found that patients in Indonesia buy generic drugs 1.34 times and brand-name drugs 32.15 times more expensive than the International Reference Price in private health facilities. The first reason is because the Ministry of Health only regulates 200 generic drugs and allows originator brands prices to be set according to market mechanisms without price caps. In addition, as much as 96% of raw

materials used by the pharmaceutical industry are obtained through imports, thereby raising prices because medicinal raw materials contribute 25-30% of the total cost of drug production (Teo, 2016).

Shortage or absence of medicines/medical devices in government-owned health services is due to the limitations of *Puskesmas* and regional Health Services in compiling a Prescription Drugs Plan (RKO) and applying the e-catalog. Prescription drug orders made by health care facilities are also often not fulfilled. On the supplier's side, obstacles include long lag time between order and delivery – in some cases more than six months of unfulfilled purchase arrears – high shipping costs, unmet minimum order requirements, and drugs not listed in the e-catalog (currently around 8% of national formulary drugs are not listed in the e-catalog) (Bappenas, 2018).

In addition, although the availability has reached 96.82%, drugs and vaccines have not been evenly distributed between provinces, which reflects poor logistics management of drugs and vaccines. Only 35.15% of *Puskesmas* and 41.72% of Hospital Pharmacy Installations have pharmaceutical services that meet the standards. Use of generic drugs increased, but rational use of drugs in healthcare facilities only reached 61.9%. This is mainly due to low application of formularies and guidelines for rational use of drugs. On the other hand, very few people know about intricacies and benefits of generic drugs, i.e. 17.4% in rural areas and 46.1% in urban areas. As many as 35% of households reported storing prescription drugs, including antibiotics, without a doctor's prescription, which is evidence of low level of public knowledge about drugs (Ministry of Health, 2019).

Registering a new pharmaceutical product in Indonesia can take 150 days for generic drugs and 300 days for new chemical entities. Entry of innovative medicines into Indonesia since first public (global) introduction is delayed by an average of 3.5 years, far from the average in other developing economic countries which is only 1.5 years. This delay is due to a backlog of applications due to limited capacity of BPOM. Indonesia does not have control over how many brands of medicinal products will be introduced to the market with same active ingredients. For example, there are more than 700 local medicines containing only Paracetamol, compared to only 120 in Thailand and 24 in Malaysia. In addition, a relatively low cost of drug registration compared to EUA and US Food and Drug Administration (US FDA) led to many anecdotal findings regarding duplicate applications for the same generic drug from the same applicant, with only different proprietary names (Teo, et al. 2016).

4.4 From PSBB to PPKM — what else in 2022?

Since 2020, policies issued by the government to respond to the pandemic have been inconsistent and confusing. Throughout 2021, the government tried to prioritize economic recovery efforts with PPKM (Enforcement of Restrictions on Community Activities) policy, which replaced PSBB (Large-Scale Social Restrictions). As discussed in Chapters 1 and 2, the 2021 implementation of

relaxation period under so-called "Micro PPKM" did not take into account the developments of the COVID-19 virus variants. As a result, the entry of the Delta variant into Indonesia could not be prevented, and it spread causing the highest spike in cases and a high death rate.

If the government repeats the same mistakes as in the previous year, such as its late closure of entrances from countries with high transmission rates; loosening PPKM rules while there are known local transmissions of VoC; and weak enforcement of quarantine and isolation rules; it is inevitable that unwanted impacts will happen again. In addition, the government's reluctance to strengthen surveillance by increasing the scope of testing and tracing also affected how quickly it could contain transmission.

Meanwhile, people have become tired of having to experience pain, grief, and confusion with drastic changes in the economic situation. Fickle regulations coupled with poor communication undermine the level of public compliance in implementing health protocols, which according to a BPS survey was below the national target of 80% in July 2021. In 2022, considering public fatigue and lessons from the last two years, finding the right combination of government policies is important to determine possible scenarios for handling COVID-19. If the government implements regulations based on reliable data and communicate them well, the public is likely to trust and cooperate in preventing transmission, and thus mutation, of the virus.

Of the four determinants, we foresee at least three possible scenarios for handling COVID-19 that can occur in 2022: **(1) An optimistic "we won" scenario** — a desired ideal that can occur due to drastic structural improvements over a short time.; **(2) Sporadic changes or "survival of the fittest"** — a world where improvements occur in small increments on a regular basis, starting with areas of relatively low vulnerability; **(3) Business as usual scenario, i.e. "there is no light after dark"** — a world where there is no significant change from the current pandemic condition and the Government's response to it. The characteristics in each scenario are presented in the table below.

Table 2. Characteristic differences between scenarios

	"We Won" **Optimistic Scenario**	**"Survival of the Fittest"** **Sporadic changes**	**"No Light After Dark"** **Business as Usual**
SARS-CoV-2 Variants of Concern	❖ Omicron causes only mild symptoms in majority of patients; ❖ Spike in cases due to Omicron could be avoided with rapid vaccination and public health response; ❖ Omicron becomes the dominant Variant of Concern replacing Delta, and becomes the last VoC. Although viral mutations continue to occur, there are no worrying derivative variants.	❖ Omicron causes only mild symptoms in majority of patients; but the spike in cases continues to burden the health system and bring societal disruption ❖ Omicron causes a spike in cases, but not followed by a high mortality rate; ❖ Omicron becomes the dominant Variant of Concern replacing Delta, and becomes the last VoC. Although virus mutations continue to occur, there are no worrying derivative variants; ❖ COVID-19 slowly transitions into an endemic disease that can be managed by the health system.	❖ Omicron or other VoCs continue to mutate, resulting in increased transmission rates, immunity, and illness; ❖ Dominant VoCs causes a spike in cases followed by societal disruption, collapse of the health system, and high mortality.

Vaccine Availability and Equity	❖ Coverage of complete primary dose vaccine dose immediately reach 90% evenly for all Indonesian people. Priority of administration is determined by needs of vulnerable groups; ❖ Booster vaccines are immediately given to groups that need it most first, so that people are protected from Omicron infections and spikes in cases can be avoided.	❖ Government prioritizes giving booster vaccines for the 65+ age group and people with immunocompromised diseases; ❖ Virus mutation is successfully slowed by accelerating vaccination for immunocompromised groups, so no new VoCs appear; ❖ Age group 65+ and immunocompromised people, who are susceptible with more severe symptoms are protected with booster vaccines, so that spikes in mortality can also be prevented; ❖ Distribution of primary vaccines is slow, especially for areas outside Java and vulnerable groups that are difficult to reach, so there may be a spike in COVID-19 cases in areas with low vaccination coverage;	❖ Government failed to control the administration of booster vaccines to groups most in need and to accelerate the process of administering primary dose vaccines; ❖ Virus mutation was not successfully slowed down, so SARS-CoV2 virus mutates again into a more dangerous variant; ❖ There is a spike in mortality because most vulnerable groups were not protected by booster vaccines; ❖ There is also a spike in cases in areas outside Java that have not yet had access to primary vaccines.

	"We Won" **Optimistic Scenario**	**"Survival of the Fittest"** **Sporadic changes**	**"No Light After Dark"** **Business as Usual**
Availability of Oral Therapy	❖ Oral antiviral therapy Molnulpiravir and Paxlovid will soon be available in Indonesia and can be easily accessed by COVID-19 patients with mild/moderate symptoms ❖ Spike in cases can be handled immediately without increasing the need for hospitalization	❖ Antiviral oral therapy is not available evenly. ❖ Surge in cases in areas without access to oral therapy results in an increase in hospitalization that overwhelms the capacity of hospitals.	❖ Availability of oral antiviral therapy Molnulpiravir and Paxlovid is limited and difficult for patients to access. ❖ Spike in cases leads to an increase in hospitalization that overwhelms the capacity of hospitals, which results in death of patients who cannot get treated.
Policy combination	❖ National government creates an umbrella regulation that can encourage affordable testing capacity by the community, while local governments continue to strive to increase coverage of testing and tracing in their regions. ❖ Government is quick to respond in closing entrances for foreign travelers who come from regions with VoC transmission.	❖ Without a regulatory umbrella from the national government, local governments are slowly making initiatives to increase testing capacity that can be reached by the community and increase tracing efforts. ❖ Government is quick to respond in closing entrances for foreign travelers who come from regions with VoC transmission.	❖ Government still does not care about increasing tracing and testing, case notification data does not improve and is not reliable for decision making. ❖ Government is again late in closing entrances for foreign travelers who come from regions with VoC transmission. ❖ Various violations of quarantine rules for foreign travelers occur, which further undermines public trust in government.

	"We Won" **Optimistic Scenario**	**"Survival of the Fittest"** **Sporadic changes**	**"No Light After Dark"** **Business as Usual**
	❖ Quarantine rules for overseas travelers are strictly enforced. ❖ Government immediately raises PPKM level when cases increase, especially in points of entry. ❖ Any changes in the status of pandemic and regulations are communicated with an appropriate and transparent risk communication approach. ❖ People are increasingly obedient to health protocols and are calm in the face of possible spikes in cases.	❖ Quarantine rules for overseas travelers are strictly enforced. ❖ Government immediately raises PPKM level when cases increase, especially in points of entry . ❖ Although there is no change in government's approach to public communication, clear regulations and enforced rules are slowly increasing public trust.	❖ Government only raises PPKM level when there is a spike in cases approaching hospital's maximum capacity limit ❖ Government still hides facts from the public under the pretext of not wanting to cause panic. ❖ People still do not trust the government and do not care about health protocols anymore
Final Impact	❖ COVID-19 could soon transition into an endemic disease that can be managed by the health system. ❖ Public already understands the risk of COVID-19 transmission.	❖ COVID-19 slowly transitions into an endemic disease that can be managed by the health system ❖ Some spikes in cases occur in areas where access to	❖ COVID-19 cannot transition into an endemic disease because the health system has not been able to control the spike in cases.

"We Won" **Optimistic Scenario**	"Survival of the Fittest" **Sporadic changes**	"No Light After Dark" **Business as Usual**
Even though it will transition into an endemic disease, the public does not ignore health protocols and continue to impose restrictions on public activities. ❖ Government can reorganize a stronger health system to deal with the next possible pandemic, while continuing to treat COVID-19 as an endemic disease. ❖ Economy can recover in a new normal situation.	vaccination has been slower. However, the crisis can be quickly resolved because the current system has adapted from the previous spike in cases. ❖ Government can begin to reorganize the health system to be more robust in dealing with the next possible pandemic, as it continues to deal with ongoing COVID-19.	❖ Economic recovery processwas again disrupted by a surge in COVID-19 cases followed by an increase in the death toll.

Meanwhile, several indicators of successful handling of the pandemic will determine how long Indonesia will stay in a worse scenario, and how quickly it can move to a one-level better scenario. These are: (1) improvement of policy and governance framework; (2) achieving transformation of primary health care; (3) availability of sufficient qualified health personnel, including health cadres; (4) integration of data and information systems; (5) increase in health budget especially for primary health services; (6) transparency of risk communication to the public; (7) active community involvement, and (8) successful multilateral diplomacy; and (9) economic recovery that is socially inclusive.

From a governance perspective, success of handling COVID-19 will depend on policies, resources and actors involved at micro-level implementation. Handling will vary in each region depending on local government's perception of central government policies, available resources, and flexibility to modify settings according to local social context. Scenarios for the course of the pandemic will depend on how effectively policies are designed to accommodate local needs with different characteristics. A balance between the government's ability to issue science-based national strategies and guidelines for local governments, provide technical assistance as well as carry out close supervision of local policies with effective leadership and implementation capacity is important. It is this balance that will enable the birth of innovation, formative evaluation, and feedback.

Transformation of primary health care will serve as the anchor for COVID-19 pandemic response — not only in the context of response but also preparedness to face the threat of the next pandemic. Handling the COVID-19 pandemic, which activates all elements and functions of the health system, will allow the COVID-19 pandemic response to target the root cause, and not be ad hoc. As a system that supports the delivery of health services, *Puskesmas* is not only connected to a network of referral hospitals and private clinics, but also to cadres, community leaders, and other key groups. *Puskesmas*, therefore, is best positioned to conduct effective surveillance, monitor isolation and quarantine campaigns, promote behavioral changes, do risk communication and various other efforts to promote health literacy. It is also *Puskesmas* that can maintain a balance between the handling the pandemic and fulfiling essential services.

Success of health sector development during the pandemic, or after, is determined by whether or not the government is able to see the situation before the pandemic, during the pandemic, and plan a future after it. An important factor in this future design is investment in health human resources. How the government' designs its strategy for production to utilization of short, medium and long-term health workers, ensures occupational safety standards, protects against psychological stress, are elements that will ensure the success of health workers, including health cadres, in providing quality health services and health education to the public. Global data shows that 70% of health workers are women. Thus, only a strategy for utilizating health workers that adopts an explicit gender and social health lens will enable service delivery capacity to move beyond just clinical medicine. Strategic

human resource planning in the health sector, if revised to consider surge capacity during a pandemic, is crucial to anticipate the increase in demand and expansion of services, and the possibility of reducing available personnel due to, among other things, illness, risky conditions, and personal or family problems. Fulfillment of rights and granting recognition will be key factors that determine whether trust of health workers in a system built by the government can be maintained until post-pandemic transition period.

An effective response to the COVID-19 pandemic depends on whether governments have access to up-to-date information, which is aggregated from individual level to the central system. One of the biggest barriers to producing reliable data is the lack of integration between different levels of public and private information systems. This puts a burden on health workers who must enter the same data into multiple applications every day, using systems that do not always work smoothly, which forces the use of informal solutions to reconcile data from different systems. Decentralization of power from national level to sub-national level has allowed districts to create their own policies on pandemic response, including developing their own applications for collecting and analyzing data. This has created duplication of data, inconsistencies and information gaps. Compounding this discrepancy is the fact that many legacy systems — information and communication systems created by health facilities to support patient care prior to the COVID-19 pandemic — are not integrated with newer COVID-19 applications. The COVID-19 pandemic has also triggered a significant increase in phishing attacks, malspam and ransomware attacks, adding to the urgency of building a well-functioning cybersecurity infrastructure in Indonesia.

A major criticism of COVID-19 response financing is the absence of plans for long-term restoration of health and social services in government budget. 21.8% decrease in health spending budget compared to 2021 outlook and inclusion of State Capital City (IKN) project budget into the National Economic Recovery program have the potential to undercut progress of the health sector and social protection programs. In the medium term, the decision to immediately integrate financing for the COVID-9 response and restoration of essential health services into the National Health Insurance system will determine whether the financing orientation can move from simply meeting immediate needs (short-term fixes) to efforts to improve long-term service sustainability.

Government's communication mistakes will prolong the COVID-19 pandemic. The success of communicating the strategy for dealing with the pandemic will determine whether the public can understand the risks, act according to government directions, and anticipate the impact of policy changes on their daily lives. In addition, risk communication also plays a very important role in maintaining public trust and responding to community needs.

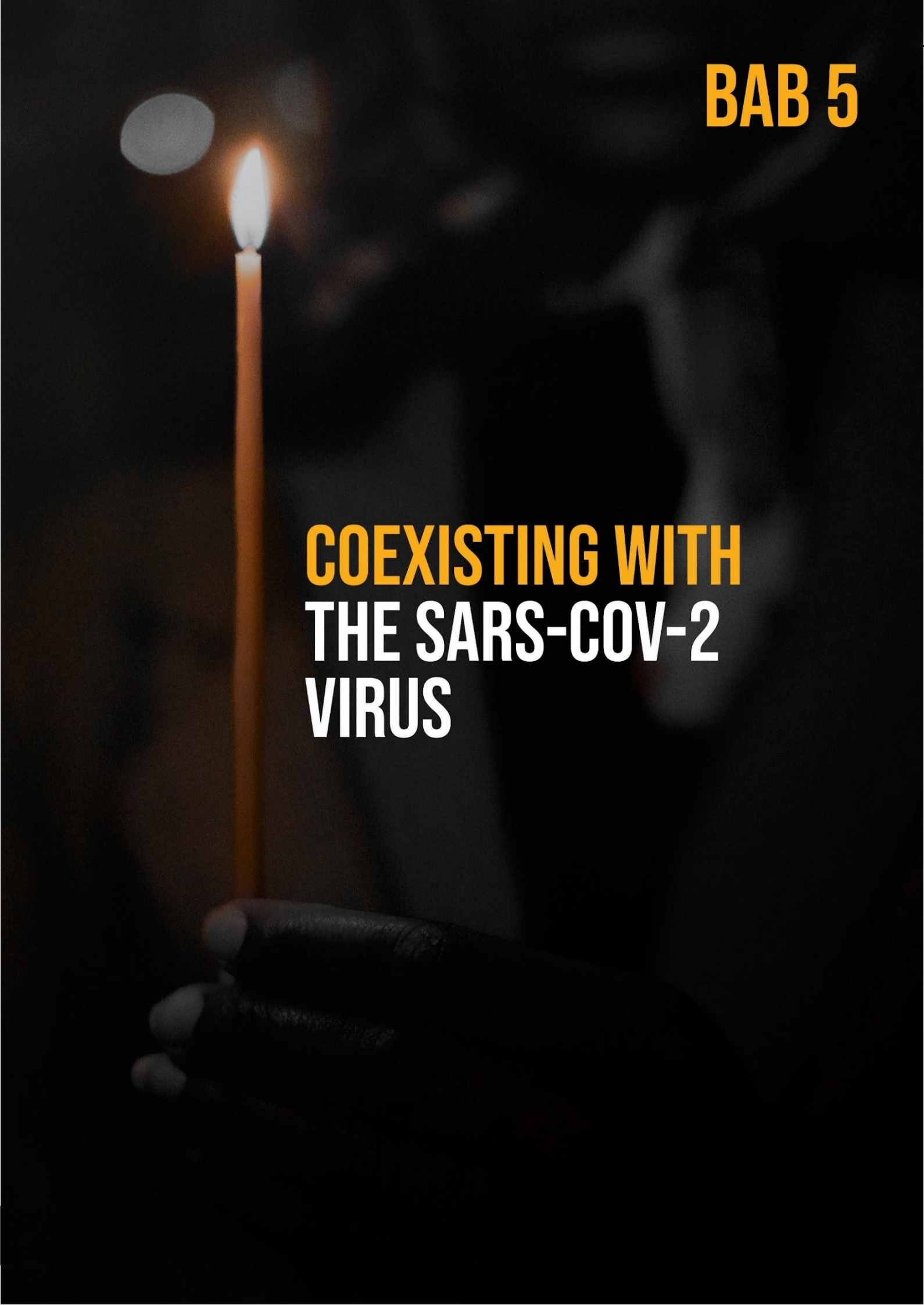
Stakeholders outside the government can play an important role in providing relevant and timely evidence to inform the pandemic response and bridge the gap between science, policy and politics

(El-Jardali, Bou-Karroum & Fadlallah, 2020). Involvement of non-government elements starts from setting priorities, helping to overcome scarcity of resources owned by the government (Lavis JN et al, 2009), formulating a synthesis of best available evidence, countering misinformation, providing a platform for cross-sectoral dialogue, monitoring the effectiveness of preventive and mitigation measures during crises and impact assessment efforts on different population groups.

Recognizing that this pandemic is happening all over the world, the excellence of multilateral diplomacy is one of the main success factors. The ability to adapt a global health agenda into a national context is a more complex task than agreeing on it in global diplomatic forums. This success will be determined by how well the regulatory framework is designed to ensure the integration of the global health agenda into national development: from the center to the village. This framework will be the main reference for the bureaucracy to implement, from its technocratic substance to budget adequacy. The transition from the institutional architecture at the national level, which currently tends to be ad hoc, to the formal institutional arrangements of ministries and agencies requires Bappenas to play the role of an orchestrator and line ministries that handle key issues as implementers. If the handling of the pandemic is maintained to be managed as a separate entity, the implications will be complex and will cause overlapping problems that waste time and resources: from planning, budgeting, implementation, to monitoring and evaluation.

Efforts to nationalize the global health agenda will only succeed if matters that emerge from negotiations between governments are welcomed with inter-community cooperation to institutionalize them. Public engagement (civil society, academia, and the private sector) must serve as a place to exchange thoughts, experiences, and ideas – and not be monopolized by government elements alone.

In terms of economic growth, the World Bank predicts that Indonesia's economic growth could reach 5% (year-on-year) in 2022 provided that optimal vaccination coverage can be met in the fourth quarter of 2021 and the capacity of health budgeting, especially in testing, tracing and treatment in a state of emergency, is optimal. This target is slightly lower than what the government set at 5.2 - 5.5 percent (year-on-year) with the scenario that the COVID-19 in Indonesia will transition in its status from pandemic to endemic. On the other hand, Indonesia's economic gap is still large with the Gini ratio widening from 0.381 in 2020 to 0.384 in March 2021 and inequality in urban areas is higher (0.401) than in rural areas (0.315). Positive outcomes in 2022 will depend on the government's ability to achieve inclusive economic growth with a focus on fiscal policy where government expenditures and revenues drive economic recovery and are also used for poverty alleviation and job creation in the short term. In the long term, the fiscal stimulus and APBN for social protection will determine the success of increasing the productivity of human resources, as well as the development of infrastructure that is more adaptive to health crises and is sustainable.



BAB 5

COEXISTING WITH THE SARS-COV-2 VIRUS

Chapter 5 | Coexisting with the SARS-CoV-2 virus

"Be open to adjustments.
There's nothing about this current moment in history that allows for stubbornness."
— unknown

Living alongside COVID-19 pandemic is the end point that the government is targeting. To be able to coexist with COVID-19, this disease must transition into an endemic disease. This means that the number of cases of infection is kept as low as possible (baseline level), like seasonal flu which can sometimes surge without causing a significant number of deaths. This means that COVID-19 cases will still be found in the future, but the numbers will be at manageable levels and will not disrupt the availability and capacity of health services. However, the potential for an epidemic or outbreaks in areas where people have not developed immunity, or whose immunity has decreased over time, still exists.

It is imprudent to assume that Omicron will be the last variant and the world is about to enter a pandemic end game. Many people around the world think that with emergence of the Omicron variant, SARS-CoV-2 has entered a stage where the virus has mutated into a harmless variant and its transmission will help natural immunity to form without endangering lives. This assumption is not based on scientific evidence and, therefore, assumptions should not be made. The reality is that the pandemic is far from over.

By trying to be cautiously optimistic, authors argues that in 2022 Indonesia will be in a "Survival of the Fittest" state of sporadic change. In this scenario, successful control of COVID-19 is limited and slow. New cases may spread over a certain period of time in several places and local endemics will occur in places with high vulnerability. As a result of policies in favor of those who already have the ability to protect themselves from infection, certain population groups will manage to continue to coexist with the SARS-CoV-2 virus. Meanwhile, others will remain vulnerable and would actually require greater policy alignment. Otherwise, they will die or be forced to live with health, economic and social risks and consequences. This is an ethical question: Where will the government stand and which side will it take? Can we let some to live, while others' lives are under a threat?

Therefore, failure and gaps in COVID-19 response between regions, as well as the inequity gap must be corrected. Otherwise, controlling COVID-19 will suffer the same fate as other endemic diseases in Indonesia (DHF, malaria, tuberculosis): uncontrolled spread, persistent deaths, and antimicrobial drug

resistance that continues to increase. The transformation must be designed to ensure government commitments lead to coordinated, interconnected, fast-moving, fair and equitable delivery. In other words, preparedness to face a threat of the third wave in 2022 must be carried out totally and reliably.

Focus on the pandemic response over the past two years has been carried out at the expense of many other important pillars of health development. The year 2022 will need to be a turning point for improvements in various health fields by applying new innovations that have been developed due to the pandemic. In addition to reforming the national health system with a priority on transformation of primary health care, homeworks in health development includes nutrition and addressing stunting, tuberculosis, as well as ensuring that routine immunization coverage for children is achieved. Moreover, with a high burden of chronic diseases beginning to shift to a younger population, policy of increasing excise duty on cigarettes and food/beverages with high sugar-salt-fat content is needed to reduce the prevalence of young smokers and stop the increase in number of people with chronic diseases.

2022 may be the last chance to control the dynamics of the pandemic and prevent it from becoming a recurring disaster. Given the political trend, 2022 will probably be the last year the machine of government can work technocratically. In 2023, bureaucratic capacity will decrease as government agencies will be occupied in the commotions of the five-yearly political cycle. If structural reforms in handling the pandemic are not completed by next year, COVID-19 response will be entangled in a political debate. It will be exploited solely as a *beauty contest* and become the target of monthly aggravation from civil society, without any benefits for saving lives.

5.1 Overhaul the regulatory and governance framework

First, the government can no longer delay clearing up the overlapping regulatory frameworks for dealing with infectious disease outbreaks. **The four laws that are used as reference must be harmonized: Law Number 4 of 1984 regarding Epidemics and Infectious diseases, Law Number 24 of 2007 regarding Disaster Management, Law Number 36 of 2009 regarding Health, and Law Number 6 of 2018 regarding Health Quarantine.** Issuance of technical implementation guidelines, which are regularly updated based on the latest science, will support coordination between ministries/agencies, serve as a planning guide in the regions, and make it easier for non-governmental elements to organize the implementation support at the grassroots.

Second, the dynamics of central-regional leadership and communication must be managed better. **Consideration should be given to re-adjusting division of tasks and institutional responsibilities at the central government level.** Stakeholder institutional reorganization at the central level could consider expanding the role of *Bappenas*, which has the strength of a technocratic approach and has a formal consultation mechanism tiered from villages to the center. Ministries and

agencies as technical implementers must be assigned clear targets, not only those related to improving indicators for handling outbreaks, but also to their success in reforming systems that require fundamental improvements so that pandemic mitigation on public health, education, social, economic and public well-being can be broadly achieved. Furthermore, several central-level state institutions in the current infrastructure can actually shift/change the outlook with a technocratic approach. Why? Because due to political constellation, this can help provide checks and balances between the Parliament, the President and other state institutions.

Third, a top-down perspective is more appropriate at initial planning stage, but a bottom-up view is more effective at later implementation and evaluation stages. **Therefore, restore the mandate of outbreak management within a decentralized framework.** Do not limit how policies are implemented and allow local governments to provide insight into which policies are effective and which are not. This will allow for regional innovation to be built with a local context to open up space for public acceptance with minimum resistance. This knowledge crowdsourcing will not happen if outbreak management is managed by Coordinating Ministries that do not open access for evaluation and feedback to and from the regions.

Fourth, effectiveness of decision-making process during a pandemic depends on the speed with which groups—rather than a handful of elites—integrate and digest complex information under stress and with high stakes. **Closed spaces must be opened for involvement of non-government elements from various backgrounds to minimize biases and tkinking errors.**

5.2 Urgently place COVID-19 control into service and financing mechanisms that are embedded in the health system

Centralistic, uniform, fragmented handling of the pandemic that disregards the territorial approach and is averse to criticism only prolong Indonesia getting out of crisis. Transformative primary health care is a solution to the current crisis, as well as a guarantee of long-term progress that is essential to preventing the pandemic from further undermining development. Not all *Puskesmas* are yet ready because the political support to empower them is not yet there. Therefore, **the government needs to mobilize and prioritize resources for *Puskesmas*: human resources, infrastructure, additional lab capacity, number of tracers and support for community-based health efforts. The government also must do massive empowerment of health cadres as part of health human resources to address acute (pandemic) and chronic problems (public health literacy). Utilization of technology such as telemedicine and online applications to trace and screen cases as well as innovative developments such as tiered primary care are smart practices that have proven to be efficient in strengthening primary service functions during a pandemic.**

Training and socialization of revised COVID-19 Prevention and Control Guidelines to respond to the spread of Omicron must be carried out. In this case, **the government can involve various**

professional organizations and civil society networks as extensions, creating massive and coordinated synergies and collaborative efforts. This collaboration can expand the reach of outreach and training, especially for health workers with limited access to telecommunications and information.

5.3 Provide universal access to COVID-19 tests to break the chain of transmission of Delta and Omicron variants, and prevent new mutations

Allowing Puskesmas to distribute antigen Rapid Diagnostic Test (RDT) to all clinic visitors without exception and organizing independent COVID-19 tests for each household can be a game changer. Limited resources to support micro-scale intervention, tracing, and isolation require budget reallocation and refocusing and integration of financing into the National Health Insurance system. Introducing new test kit types that are easier to use intothe JKN medical devices list must be started immediately. **If easier-to-use and more convenient antigen RDT for routine self-tests can be made available as part of free JKN benefits at *Puskesmas* and pharmacies, the rate of case transmission will be significantly suppressed due to faster detection.**

Moreover, increasing tracing capacity by relying on health cadres will help solve the problem of under-reporting. With massive tests and tracing, the COVID-19 epidemic curve can be constructed accurately, down to sub-district level. This will guide *Puskesmas* to design strategies and respond to spikes in cases as early as possible according to their authority.

5.4 Strengthen vaccine production and distribution capacity

The spread of variants of concern necessitates the administration of third or booster doses (WHO, 2021b). However, the administration of the third and booster doses must be based on scientific evidence regarding decreased immunity and clinical protection, reduced vaccine effectiveness, and targeted at population groups that need it most, namely the elderly over 65 years and immunocompromised patients.

In the context of limited vaccine supply and vaccine delivery capacity, booster policies risk exacerbating vaccination inequality and diverting supply from distribution of the first two doses or primary vaccination. Without prioritizing the fulfillment of complete vaccination doses widely, quickly and accurately, the prospect of mitigating a pandemic could be derailed in the long run and have bad implications for public health, social welfare, and the economy.

On this basis, we call on the government to clarify the strategy to achieve vaccination target of 70-80% full-dose vaccine coverage, accelerate vaccinations and expand the reach to vulnerable communities, clarify the availability of supply and service capacity for the third dose of COVID-19 vaccination for the elderly 65 years and over, and prepare governance to

ultimately provide the third dose free of charge for all. We encourage the government to scale up vaccination coverage for all, especially for the most vulnerable people by mobilizing primary health services. *Puskesmas* is capable of strengthening health capacity at the community level, including reaching vulnerable groups who have difficulties accessing vaccination.

***Puskesmas* remains as the main center for booster vaccination. Due to the dual workload for vaccines 1-2 and boosters, provide support from now on for transformation of primary health care in the form of budgets, human resources, and regulation.** If this is done consistently, a transformative and resilient national health system and primary health care will be built after the pandemic is over.

Latest scientific evidence increasingly supports the probability that the appropriate dose of COVID-19 vaccine is three injections, which could make the notion of (optional) booster vaccination wrong. If this is true, **the government needs to reorganize full-dose vaccination guarantee for all. In the future, an annual booster may be required.** Anticipating this, the government needs to plan from now on a long-term COVID-19 vaccination strategy. Increased distribution capacity, readiness of *Puskesmas* infrastructure as community service centers, and integration of COVID-19 vaccination financing into the National Health Insurance system are urgently needed.

We urge transparency of national vaccination policies, which range from data to procurement processes, distribution of vaccines to provincial, district and city governments, and distribution to recipient individuals or groups. As it stands now, the public still has difficulty accessing information regarding quantity, validity period, and types of vaccines. There are also issues with the procurement process, distribution of vaccines to provincial, district and city governments, to distribution to individuals or groups of recipients.

Data collection system improvement should be a priority agenda of the government before implementing the third dose of vaccination to ensure that people can get access vaccines easily. Lack of transparency in distribution of vaccines makes it difficult for people to obtain real-time information regarding the number of vaccine doses that have arrived in their area and where the vaccines are distributed. As a result, people do not know when the vaccines be available and administered. This information needs to be available to enable the public to monitor the types of vaccine that are distributed according to regional needs, to ensure that no person have difficulty accessing the second vaccine dose.

In the medium-long term, the **national research ecosystem must be prepared to manage the transfer of knowledge and technology for domestic vaccine development.** Indonesia's success in leveraging TRIPS will help cut the distribution chain and help strengthen global manufacturing capacity.

5.5 Availability of oral therapy for COVID-19 patients

Addressing barriers to inclusion of COVID-19 oral therapy in national formulary require capacity building of the Directorate General of Pharmacy and Medical Devices of the Ministry of Health, BPOM, and BPJS Health. These oral drugs need to be made available for all and planning for procurement and distribution should not only focus on industrialization efforts. Institutional improvements, technical capacity building, long-term financial planning and harmonization of regulations need to be carried out.

5.6 Finding the right combination of public health measures

Given public's fatigue and lessons of the past two years, finding the right combination of public health-based interventions is critical. Handling of the pandemic seems to have not been a priority and health protocols have been loosened. As a result, the tired and bored public grows complacenet, while vulnerable people find it increasingly difficult to protect themselves. **We understand that options available to policymakers are increasingly limited, and several policies regarding home isolation with monitoring via telemedicine, strict quarantine, PCR access at airports, can bring Indonesia to the optimum level of this public health-based intervention.**

A possible middle way is to increase access to and compliance with use of standard respirator masks. **Mask with N95/FFP2/KN95 grade will help if the are freely available and made accessible to the public.** Public messaging regarding how to wear masks need to be updated, with emphasis on how to reuse N95/FFP2/KN95-grade masks after proper decontamination.

Public compliance will depend on the government's openness regarding the actial state of the pandemic. Our observations show that, compared to 2020, the government is issuing early warnings more often, a commendable action that should be maintained. Unfortunately, these early warnings are often not accompanied by comprehensive strategy adjustments, but only go as far as short-term recommendations that keep changing, and enforced arbitrarily.

5.7 Play an active role as a country that fully believes in multilateralism and consistent in ensuring that global agreements are adapted into national policies

Indonesia has a bad track record in its efforts in nationalizing global agendas, especially agreements that are non-binding. As President of the G20, Indonesia has many opportunities to not only promote various developing country issues that have emerged in the midst of a crisis, but also to maintain commitments to multilateralism and global solidarity. **The Indonesian government can use its G20 presidency momentum as an external modality, not only as a channel to project a good image, but also as an additional source of strength for improvement and strengthening of of health policies at the national level.**

We call on Indonesia to maintain its political position and funding scenario for the pandemic in accordance with New International Treaty for Pandemic. Three strategic issues to: (1) Reduce the rate of global vaccines inequity among developed, developing, and third world countries, (2) Develop a Global Health Financing framework that guarantees financial inclusion for affected countries, and (3) Represent the Global South agenda related to increasing access to health, especially in handling the pandemic. These should be pursued by strengthening WHO capacity.

The New International Treaty for Pandemic remains relevant to break the chain of disaprity between developed and developing countries in increasing capacity for readiness and response to pandemics, both COVID-19 and the threat of other pandemics in the future. There are concerns that the new funding scenario proposed by HLIP will reduce WHO's significance in building global response preparedness and capacity for the pandemic. This is due to unclear support for this scenario for PPR as part of New Pandemic Treaty which was first initiated by WHO (Nikogosian & Kickbusch, 2021).

A difficult task awaits, G20 leadership that is intermestic in nature requires the Government of Indonesia to be able to balance its position, both in strengthening the institutional capacity of the G20, as well as optimizing role of the G20 to achieve domestic interests. According to the mandate of Presidential Decree 12/2021 regarding G20, coordination between ministries/agencies is the main pillar of Indonesian Presidency in the coming year. This coordination is needed considering involvement of various ministries/agencies into G20 sherpa structure and financial track. **Given that each of these intersecting issues has been led by several other technical ministries through a working group scenario, it is important for the Government of Indonesia to ensure synergy and maintain alignment of agendas between relevant ministries.**

In this section, **the authors specifically emphasize the synergy between the Ministry of Health and the Ministry of Finance in preparation of the draft communique of the Joint Finance and Health Ministerial meeting and the Joint Finance-Health Task Force to ensure that the agenda represents the needs and interests of the two ministries.** Even though the Ministry of Finance occupies a strategic position as the chair of the Joint Finance-Health Task Force, it does not mean that the Ministry of Health as a Technical Ministry will lose its role in preparing financing scenarios that are in line with programs to strengthen capacity for preparedness and response to the pandemic in Indonesia. This must be done as a form of check and balance between the two ministries, to ensure that all G20 instruments can be optimized for improving national policies. However, the possibility that the two line ministries may not have the same knowledge, sensitivity and a common agenda for dealing with the pandemic can possibily make coordination less than optimal.

Therefore, **Indonesian government domestically needs to carry out capacity building across ministries/agencies (Ministry of Health and Ministry of Finance) to build knowledge, sensitivity, and a common agenda on health issues and pandemic governance,** from Global Health

Financing, Vaccines Inequity, to Pandemic Preparedness and Response, which are being brought to the G20. The experience of the two ministries in developing a program for the first 1000 days of life which has become a foundation of national stunting policy can serve as a modality and learning for both to synergize again in preparation of the agenda for strengthening the capacity to respond to global and national pandemics at the G20. Moreover, the agenda for strengthening the health system, especially strengthening health security and resilience, as well as controlling disease and immunization, has been included as a major national development project in 2022 RKP and 2020-2024 RPJMN.

Closing | Will there be light?

"There is no greater sorrow than to recall our times of joy in wretchedness."

— Dante Alighieri, Inferno

A seemingly unending pandemic does not mean that we are powerless in anticipating its occurrence, prepare for it, by quickly understanding the genetic structure of the virus, and prevent the transmission and respond to outbreaks. 2021 taught us that reckless coexistence with SARS-CoV-2 has claimed many lives and pushed so many people into the abyss of vulnerability. The year 2021 also showed that options for improvement have narrowed amid the backlog of work and psychological exhaustion.

2022 is a defining year. This year could prove to be the final opportunity for the bureaucratic machine to move before the five-yearly political cycle shifts the government's focus and slows down the wheels of government. The year 2022 should no longer be characterized by a cycle of panic and neglect. Wake up calls, like what happened in mid-2021, should never repeat.

Four main points that will serve as benchmarks for success in 2022 are: 1) Transformation of primary health care that has a positive impact on health outcomes, health equity and health system efficiency (WHO, UNICEF, World Bank 2018); 2) A capable and empowered bureaucracy with the capacity to deliver thoroughly; 3) Communities that are actively involved and participate in overseeing and implementing health policies consistently; 4) Given Indonesia's current Presidency of the G20 and active role in various multilateral health negotiations, a clear national position needs to be translated and adapted into national policy directions.

The authors believes that all parties want the handling of the pandemic to be succesfully achieved, readiness to face health emergencies be built and for light to rise after darkness.

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CENTER FOR INDONESIA'S STRATEGIC DEVELOPMENT INITIATIVES

Jl. Probolinggo No. 40C RT.01/02, Kel. Gondangdia,
Kec. Menteng, Jakarta Pusat, DKI Jakarta 10350
Email secretariat@cisdi.org
Phone: (+62) 21 3917590
Fax: (+62) 21 3913471

cisdi.org