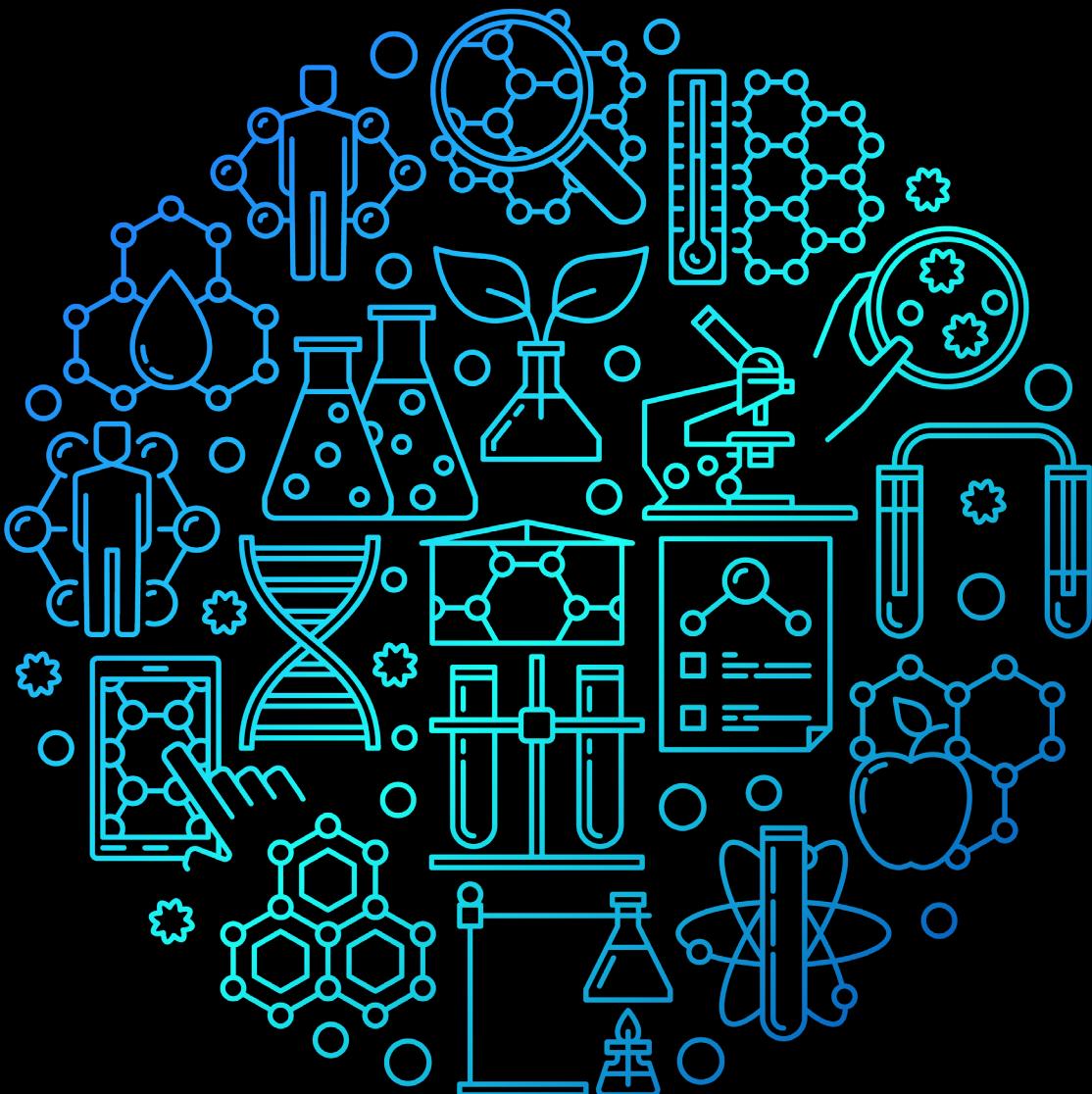


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Deloitte Indonesia Business and Industry Updates

Rising to the COVID-19
Health Care Challenge in Indonesia

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As of 30 April 2020, the COVID-19 pandemic has swept across 210 countries, with a total tally of 3,231,054 positive cases and 228,403 deaths¹. This crisis has brought forth new challenges – and amplified existing ones – that many governments are facing in ensuring health care access for their citizens.

Indonesia, in particular, has emerged as the 36th most affected economy with a total of 7,775 positive cases, 647 deaths, and 960 recoveries as of 23 April 2020². The sheer scale of this outbreak presents an unprecedented challenge for Indonesia, which has been ranked as the 17th most at-risk economy in a recent COVID-19 risk ranking that takes into consideration each economy's medical and non-medical factors, including risk of infection, hospitalisation, death and lasting health conditions, as well as the economy's risk of negative economic, quality-of-life, and geopolitical issues resulting from the pandemic³.

According to the benchmark, Indonesia faces a greater number of risks than several other regional Southeast Asian economies, including Myanmar (18th), Cambodia (19th), and Lao PDR (20th), although it ranks more favourably as compared to Philippines (9th) (see Figure 1)⁴. A similar trend can also be observed in an Asia Pacific regional ranking of COVID-19 safety, where Indonesia was placed at the 17th position out of a total of 20 economies⁵.

With a study by the State Intelligence Agency (BIN) warning that the COVID-19 pandemic in Indonesia may reach its peak within the next three months, and culminate to more than 106,000 cases by July⁶, the issue of health care access and capacity – an issue that the health care sector has already been facing even before the pandemic – is likely to remain in the forefront for the foreseeable future.

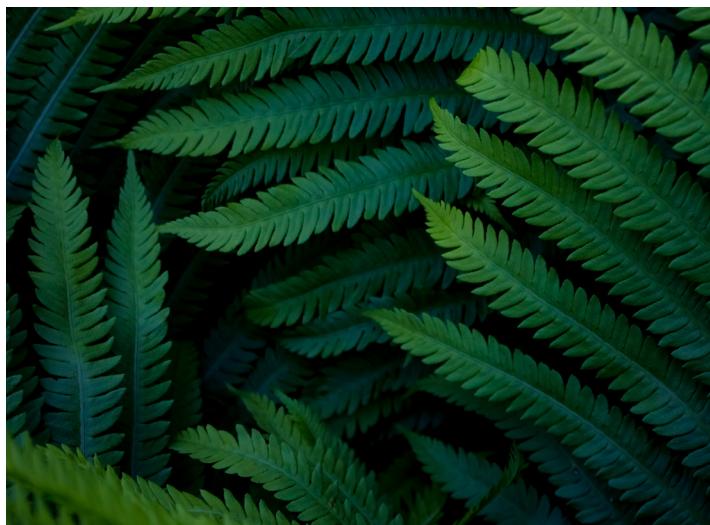


Figure 1: COVID-19 risk ranking

Rank	Economy
1	Italy
2	United States
3	United Kingdom
4	Spain
5	France
6	Sweden
7	Iran
8	Ecuador
9	Philippines
10	Romania
11	Nigeria
12	Russia
13	Bangladesh
14	Mexico
15	India
16	Sri Lanka
17	Indonesia
18	Myanmar
19	Cambodia
20	Lao PDR

Source: Deep Knowledge Group

¹https://www.worldometers.info/coronavirus/?utm_campaign=homeAdUOA?Si

²<https://nasional.kompas.com/read/2020/04/24/07505631/update-23-april-7775-orang-terinfeksi-covid-19-pemerintah-ungkap-basis-data>

³"Deep analysis of global pandemic data reveals important insights". Forbes. 13 April 2020.

⁴"COVID-19: Risk ranking". Deep Knowledge Group. Retrieved on 30 April 2020.

⁵"Asia Pacific region COVID-19 safety ranking". Deep Knowledge Group. 12 April 2020.

⁶"Indonesia's coronavirus cases may reach more than 106,000 by July, according to spy agency". The Jakarta Post. 3 April 2020.

Capacity constraints in the health care sector

Even before the COVID-19 outbreak in Indonesia, capacity constraints have been an issue in Indonesia. According to figures provided by the Ministry of Health in January 2020, Indonesia currently has only about 321,544 hospital beds – to serve a population of about 270 million people⁷. This translates into about 1.2 hospital beds per 1,000 population (see Figure 2), significantly lower than neighbouring economies such as Malaysia, Thailand, and Vietnam. Similarly, the ratio of physicians to population stands at only 0.38 physicians per 1,000 population – less than half the number for Vietnam and Thailand and only about a quarter of that for Malaysia and Phillipines (see Figure 3).

Figure 2: Ratio of hospital beds to population



Source: World Bank

Figure 3: Ratio of physicians to population



Source: World Bank

⁷<https://www.indonesia-investments.com/news/todays-headlines/can-indonesia-s-healthcare-industry-cope-with-the-growing-number-of-covid-19-patients/item9261>

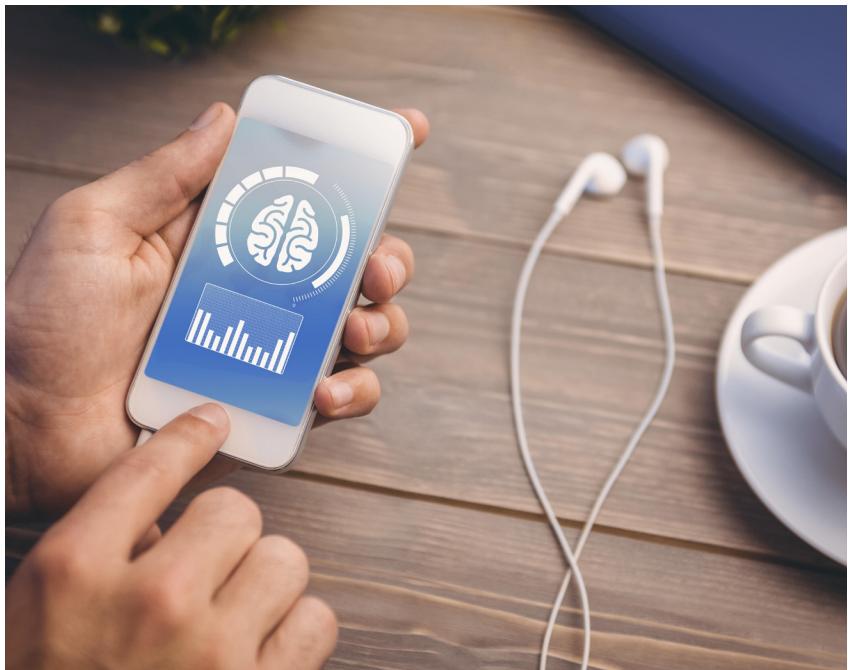
Three key aspects of Indonesia's health care capacity constraints have been identified:

1. Shortage of manpower and facilities

Amid the surge in COVID-19 cases across the archipelago, Indonesia's COVID-19 rapid response task force estimates that it will need an additional 1,500 doctors – especially pulmonologists, anaesthetists and general physicians – and 2,500 nurses to treat COVID-19 patients⁸. Hospitals also urgently need more laboratory staff, administrative staff and ambulance drivers⁹. Earlier in March 2020, Education and Culture Minister Nadiem Makarim also called on medical school students across the country to join the task force's volunteer program¹⁰.

But these numbers may be too conservative an estimate. Even with the designation of 132 hospitals as COVID-19 referral hospitals across Indonesia's 34 provinces¹¹, Indonesia still has one of the lowest testing rates in the world¹². This implies that Indonesia is likely to have far higher number of COVID-19 cases than it has reported: estimates suggest that only about 21% of the overall population is reportedly covered by surveillance and testing, with about 15% of them eventually testing positive for COVID-19¹³.

In response to the growing number of cases, the government prepared an additional 227 hospitals – including military hospitals, police hospitals, and hospitals operated by state-owned enterprises – to receive COVID-19 patients¹⁴. It also converted several buildings into makeshift facilities for COVID-19 patients, including Jakarta's 2018 Asian Games Athlete's Village in Kemayoran¹⁵, and a former camp for Vietnamese refugees on Galang Island in Riau¹⁶.



⁸"COVID-19 task force issues call for 4,000 more medical workers". The Jakarta Post. 27 March 2020.

⁹"COVID-19 task force issues call for 4,000 more medical workers". The Jakarta Post. 27 March 2020.

¹⁰"Our country is at war": Education Minister Nadiem Makarim calls on students to join fight against COVID-19". The Jakarta Post. 26 March 2020.

¹¹"Indonesia scrambles to contain coronavirus as most hospitals not ready". The Jakarta Post. 14 March 2020.

¹²"More than 2,200 Indonesians have died with coronavirus symptoms, data shows". The Jakarta Post. 28 April 2020.

¹³<https://katadata.co.id/analisisdata/2020/04/22/posisi-kesiapan-indonesia-di-dunia-hadapi-ledakan-covid-19>, Kata Data, 30 April 2020

¹⁴<https://katadata.co.id/berita/2020/03/13/jokowi-tambah-227-rumah-sakit-rujukan-penanganan-virus-corona>, Kata Data, 13 Maret 2020

¹⁵"From athlete's village to hotel, Indonesian government prepares makeshift facilities for COVID-19". Channel NewsAsia. 23 March 2020.

¹⁶"Indonesia to turn former Vietnamese refugee camp into hospital for COVID-19 patients". The Jakarta Post. 4 March 2020.

2. Lack of protective equipment

At the same time, the severe shortage of equipment, such as personal protective equipment (PPE), remain impediments that Indonesia will need to overcome. For instance, at a public hospital in Tasikmalaya, West Java, where the availability of hazmat suits is limited, medical personnel were forced to wear thin plastic raincoats, costing IDR 10,000 (USD 0.70) apiece, when transporting patients under observation for COVID-19¹⁷.

The lack of PPE also puts health care workers at risk. As of 19 April 2020, 29 physicians have died since succumbed to COVID-19 (see Figure 4)¹⁸. Two primary causes of their deaths have been identified: the lack of appropriate PPE, and dishonest disclosures by patients about their medical and travel histories¹⁹.

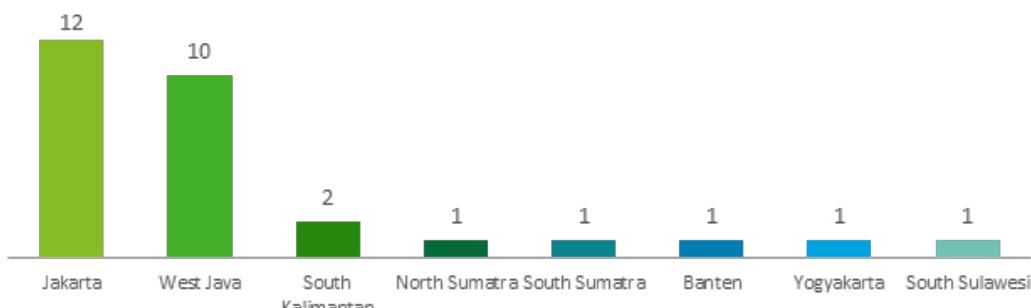
3. Operational funding issues

Currently, the disbursement of patient care expenses in hospitals and health facilities are covered under the Ministry of Health's Decision Number HK.01.07/Menkes/238/2020 (Technical Guidance for Reimbursement of Treatment Cost for Emerging Infection Disease Patients for Hospitals that Provide Services)²⁰.

Under this scheme, the payment mechanism for COVID-19 medical treatment procedures is based on the existing package system known as the Indonesian Case Base Groups (INA-CBGs), where claims are directed to the Directorate General of Health Service, with a carbon copy sent to BPJS Kesehatan and local health agencies.

The 14-day claim period, including a 7-day verification period required by BPJS Kesehatan, has been considered too lengthy by the Indonesian Health Law Society (MHKI) as it may result in hospitals facing business continuity issues if they run out of operational funding²¹.

Figure 4: COVID-19 related physician deaths in Indonesia



Source: Litbang Kompas

¹⁷"Indonesia scrambles to contain coronavirus as most hospitals not ready". The Jakarta Post. 14 March 2020.

¹⁸<https://databoks.katadata.co.id/datapublish/2020/04/21/puluhan-dokter-meninggal-dalam-pandemi-covid-19>, Katadata.co.id, 20 April 2020

¹⁹Idem

²⁰Kepkemenkes HK.01.07/Menkes/238/2020 Tentang Penetapan Rumah Sakit Rujukan Penanggulangan Penyakit Infeksi Emerging Tertentu, PDF

²¹<https://www.kompas.com/sains/read/2020/04/20/124812623/mhki-desak-pemerintah-segera-cairkan-biaya-perawatan-pasien-corona>

Virtual Health Care

Accelerate digital

But with the number of COVID-19 cases still expected to grow, Indonesia's health care sector should also consider how they can better leverage technology to overcome some of its capacity constraints in both the near- and short-term. Specifically, telemedicine is increasingly emerging as one of the most important tools in Indonesia's fight against COVID-19. Although telemedicine had already taken root in Indonesia prior to COVID-19, the pandemic outbreak has been a key catalyst accelerating its adoption by both patients and doctors.

To lessen the strain on its health care facilities, the government is directing the public to telemedicine firms through which they can access verified medical guidance, get free doctor consultations via video, telephone or text, and even have medication prescribed and delivered²². During the outbreak period, Indonesia's largest telehealth firms, including Alodokter, Halodoc, and GrabHealth – a joint venture between Singapore ride-hailer Grab and China's Ping An Healthcare and Technology – have all seen usage skyrocket²³. In March 2020, for instance, Alodokter recorded 61 million web visits

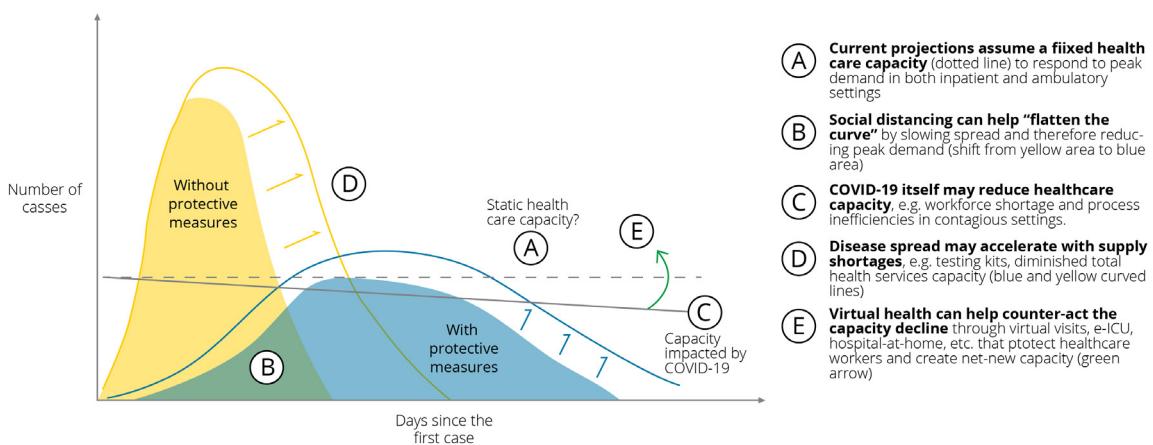
and more than 33 million active users in March – approximately 1.5 times higher than the usual traffic before the outbreak²⁴.

Indonesia can also draw some lessons from the US, where about 46,000 medical intensive-care unit (ICU) beds are already operating at or near full capacity. Apart from fixed assets constraints, such as number of beds, and supply and equipment shortages, i.e. too few masks or too few ventilators, there is a real risk for declining capacity due to workforce constraints on the frontlines. Due to clinicians could also exposed to the COVID-19 and have to quarantine themselves, or facing exhaustion because of long hours of working, or other personal condition, in this case they could still play a role via virtual health. Furthermore, specific operational measures, protocols, and precautions in caring for COVID-19 patients could lead to less-efficient health care delivery. For example, recovered COVID-19 patients might spend several days in inpatient facilities and critical care beds awaiting test results before they are discharged, further decreasing capacity.

As a result of abovementioned factors, the supply side may in fact decrease (downward-sloping line), despite efforts across the nation to bring additional reserve capacity online.

As we think about flattening the curve, we should account for the likely possibility that health services capacity may indeed decline, as described above. This could mean that delays in testing and caring for patients will result in greater incidence and prevalence from undiagnosed and/or untreated individuals (see Figure 5). The greater prevalence, promoted by supply-side shortage, could cause demand for services to increase further. On the chart, this could correspond to both increase in total number of cases (surface under curve) as well as peak demand (vertical amplitude of curve). This could apply under both the scenario with social distancing and without social distancing.

Figure 5: Comparison of static and non-static health care capacity on peak demand from COVID-19



source: Modified from CDC

²²"Digital doctors: Indonesia uses 'telehealth' to fight coronavirus". Aljazeera. 10 April 2020.

²³"Digital doctors: Indonesia uses 'telehealth' to fight coronavirus". Aljazeera. 10 April 2020.

²⁴"Will Indonesia's telemedicine start-ups be the next unicorns?". The Jakarta Post. 21 April 2020.

Virtual health could help stabilise existing supply and increase the capacity of the health care system:

- Load-balance capacity: Virtual health makes it possible to tap into excess provider capacity in geographies that are not currently COVID-19 hot-spots.
- Reduce workforce exposure: Virtual health visits can help reduce staff exposure and lessen the use of PPE. ER doctors, for example, can virtually drop in on emergency room visits.
- Overcome quarantine hurdles: Providers who need to self-quarantine can still attend to patients through virtual measures, which means they are not completely removed from the workforce.
- Scale scarce expertise: The capacity of scarce intensive-care physicians could be augmented by deploying e-ICU solutions in which specialists are connected remotely. This could multiply the reach of one intensivist 50 to 100 fold.
- Redeploy clinical experts: As elective procedures are delayed, those specialists could help with outpatient care/virtual health. This again might help manage the outpatient surge.

- Expand capacity: Virtual health can enable hospital-at-home solutions that allow for more rapid discharge of patients. This can create net-new capacity "in the home" and also free up inpatient hospital capacity for new cases.

In response to the COVID-19 outbreak, US federal regulators have loosened some restrictions around virtual health. On March 17, the US Centers for Medicare and Medicaid Services (CMS) temporarily waived restrictions on the use of virtual health among Medicare members²⁵. Previously, telehealth services were only covered for beneficiaries living in rural areas. In addition, the agency waived enforcement of HIPAA (The Health Insurance Portability and Accountability Act) health-privacy law violations, which will make it possible to conduct virtual health visits via non-compliant social medial platforms. The relaxation of these regulations are key factors that can help accelerate adoption of virtual health.

Many predictions anticipate a surge in demand for both inpatient and outpatient services due to COVID-19. With declining clinical workforce capacity, health systems should consider the following benefits of virtual triage and tele-medicine capabilities:

- Creating net-new capacity: Services like virtual consults, e-ICU remote rounding, and hospital-at-home can expand capacity. Through an e-ICU, for example, one intensive care physician could oversee care for 50 to 100 patients.
- Protecting the workforce and managing supplies: Virtual health can create a degree of separation between providers and patients, thus reducing the use of already dwindling PPE.
- Removing healthy individuals from a high-risk environment: Virtual triage capabilities could reduce overcrowding of in-person visits in outpatient settings, thus reducing potential for contagion at the physician office itself.



²⁵Deloitte US, <https://www2.deloitte.com/us/en/blog/health-care-blog/2020/virtual-health-help-expand-capacity-covid-19.html> (5April 2020)

Looking ahead

The Indonesian government has taken a number of decisive steps in its efforts to bring the COVID-19 outbreak under control, including but not limited to expanding health care facilities, lifting duties and import taxes on many medical items to increase domestic stocks, and allowing the commercial imports of medical supplies previously limited only to government institutions and public service agencies²⁶.

It has also leveraged learnings from other countries around the world, such as Italy, in implementing large-scale social restrictions (PSBB) across its provinces. For Indonesia, this has also meant a ban on the homecoming tradition known as "mudik", where millions travel to their hometowns for Eid al-Fitr celebrations every year. President Joko Widodo explained that this decision was taken to curb travel after a recent government study showed that around 24% of Indonesians were still planning to make the journey this year²⁷.

Practical next steps

Ultimately, we believe that the industry will need to take a series of practical, immediate steps to fortify itself for the entire duration of the pandemic. Specifically, these include:

1. Assembling a cross-functional crisis response team.
2. Assessing the organisational exposure by conducting strategic business impact assessments to identify and map critical services and functions based on operational dependencies, including key systems, staff, third parties, and operational hubs²⁸.
3. Preparing for a proportional response.
4. Conducting scenario planning by considering potential business disruptions caused by extensive employee absences, shutdowns of geographies, and supply chain disruptions, and develop a response playbook to be activated based on certain trigger events.
5. Keeping plans, policies, and procedures actively under review, and ensure that they are adaptive and flexible to ensure the institution remains prepared and able to protect its people, reputation, strategy, and bottom line.

In this unprecedented time of change, the COVID-19 pandemic has caused governments and health care organisations to adjust to operational and financial challenges that would have been unthinkable in the past. When we emerge from the crisis, those that emerge ahead are likely to be those who have recognised how COVID-19-related market and societal shifts have caused substantial uncertainties that need to be navigated – and seized them as an opportunity to grow and change.



²⁶"Indonesia imports \$50m worth of medical supplies as coronavirus cases show no sign of slowing". Jakarta Globe. 22 April 2020.

²⁷"Indonesia bans citizens from traveling to their hometowns for Eid al-Fitr celebrations". CNN. 22 April 2020.

²⁸Understanding the Sector Impact of COVID-19, Deloitte Australia, Stephanie Allen, 2020.

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