

# Indonesia

This document is a compilation of all questions, justifications, and sources used to determine the 2021 Global Health Security Index scores for Indonesia. For a category and indicator-level summary, please see the Country Profile for Indonesia.

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## Category 1: Preventing the emergence or release of pathogens with potential for international concern

### 1.1 ANTIMICROBIAL RESISTANCE (AMR)

#### 1.1.1 AMR surveillance, detection, and reporting

##### 1.1.1a

**Is there a national AMR plan for the surveillance, detection, and reporting of priority AMR pathogens?**

Yes, there is evidence of an AMR plan, and it covers surveillance, detection, and reporting = 2, Yes, there is evidence of an AMR plan, but there is insufficient evidence that it covers surveillance, detection, and reporting = 1, No evidence of an AMR plan = 0

**Current Year Score: 2**

Indonesia has a national AMR plan for the surveillance, detection, and reporting of priority AMR pathogens. As noted in the Joint External Evaluation (JEE) of IHR Core Capacities of the Republic of Indonesia, the country developed its 'National Action Plan for Antimicrobial Resistance Indonesia 2017-2019' in May 2017. Technical support was provided by the World Health Organisation (WHO) and the United Nations Food and Agriculture Organization (FAO), with WHO consultants. [1] The 'National Action Plan on Antimicrobial Resistance: Indonesia 2017-2019' includes five strategic objectives: (1) raising awareness and understanding of AMR; (2) surveillance of AMR; (3) hygiene, infection prevention and control; (4) optimizing the use of antimicrobial medicines; and (5) increasing investments in new medicines, diagnostic tools, vaccines, and other interventions to reduce antimicrobial use. The plan also covers AMR data collection, analysis, and reporting. [2] A consultation workshop on the development of a new national AMR plan for 2020-2024 was conducted in May and October 2019 by the Ministry of Health, supported by the FAO, WHO, and USAID. [3,4] However, as of August 2020, the AMR plan for 2020-2024 has not yet been published online.

[1] World Health Organisation (WHO). November 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Indonesia". [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2018.9/en/>]. Accessed 8 September 2020.

[2] Ministry of Health of the Republic of Indonesia. May 2017. "National Action Plan on Antimicrobial Resistance: Indonesia 2017-2019". [<https://puskespemd.a.net/download/national-action-plan-antimicrobial-resistance-indonesia-2017-2019/>]. Accessed 8 September 2020.

[3] Ismail, EH. 6 May 2019. "The Management of Antimicrobial Resistance Has Become a National Need (Pengendalian Resistensi Antimikroba Menjadi Kebutuhan Negara)". [<https://republika.co.id/berita/pr311z428/ekonomi/pertanian/19/05/06/pr30oq453-pengendalian-resistensi-antimikroba-menjadi-kebutuhan-negara>]. Accessed 8 September 2020.

[4] Animal Medicine Association of Indonesia. "Stakeholder Consultation Workshop RAN AMR 2020-2024". [[http://www.asohi.org/index.php?option=com\\_content&view=article&id=1273:stakeholder-consultation-workshop-ran-amr-2020-2024&catid=1:latest-news&Itemid=11](http://www.asohi.org/index.php?option=com_content&view=article&id=1273:stakeholder-consultation-workshop-ran-amr-2020-2024&catid=1:latest-news&Itemid=11)]. Accessed 8 September 2020.

##### 1.1.1b

**Is there a national laboratory/laboratory system which tests for priority AMR pathogens?**

All 7 + 1 priority pathogens = 2, Yes, but not all 7+1 pathogens = 1, No = 0

**Current Year Score: 1**

Indonesia has a national laboratory system that can test for some of the 7+1 priority AMR pathogens. The Joint external evaluation (JEE) of IHR core capacities of the Republic of Indonesia notes that there is domestic capacity to test for certain priority pathogens, e.g. Methicillin Resistant *Staphylococcus aureus* and Multi-drug resistant tuberculosis. The JEE notes that Indonesia lacks a list of specific priority pathogens. [1] The National Institute of Health Research and Development (NIHRD) states that it can test for 6 out of the 7+1 priority AMR pathogens: *E. coli*, *S. aureus*, *Salmonella* spp, *Shigella* spp, *N. gonorrhoeae*, and *Mycobacterium tuberculosis*. However, there is no information on the website of the NIHRD that these tests refer to the drug-resistant forms of the pathogens. [2] Research publications indicate that there is domestic capacity at various hospitals and universities to test for all 7+1 priority AMR pathogens: *E. coli* [3], *K. pneumoniae* [4], *S. aureus* [3], *S. pneumoniae* [5], *Salmonella* spp [6], *Shigella* spp [7], *N. gonorrhoeae* [8], and *Mycobacterium tuberculosis*. [9] However, as of 7 October 2020 the websites of the Public Health Laboratories of Jakarta and Surabaya, which serve as National Reference Laboratories, are inaccessible and information on its testing capabilities cannot be verified.

Indonesia was officially enrolled in the Global Antimicrobial Resistance Surveillance System (GLASS) from the World Health Organization on 28 January 2019. To support GLASS implementation, a training workshop supported by the World Health Organization (WHO) was held in March 2019 to reorganize the country's AMR surveillance system. [10] The National Institute of Health and Development (NIHRD; Badan Penelitian dan Pengembangan Kesehatan or Balitbangkes) was appointed as the National Coordinating Center (NCC), with both Jakarta Public Health Laboratory and Surabaya Public Health Laboratory appointed as National Reference Laboratories, supported by 11 regional hospitals as sentinel sites. This arrangement was formalized through Directorate-General Decree No. YR.01.03/III.1/2665/2019 on "The Establishment of NRL and Sentinel Sites in the Implementation of the GLASS Framework." [11]

[1] World Health Organisation. 2017. "Joint external evaluation of IHR core capacities of the Republic of Indonesia".

[<https://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2018.9/en/>]

[2] National Institute of Health Research and Development. 16 September 2013. "Bacteriology Lab (Laboratorium Bakteriologi)". [<http://www.pusat1.litbang.kemkes.go.id/index.php/laboratorium/jenis-lab/lab-bakteriologi>]. Accessed 8 September 2020.

[3] Lestari, E.S. et al. 2008. "Antimicrobial resistance among commensal isolates of *Escherichia coli* and *Staphylococcus aureus* in the Indonesian population inside and outside hospitals". *European Journal of Clinical Microbiology and Infectious Diseases*. 27[1] : 45-51. [<https://www.ncbi.nlm.nih.gov/pubmed/17934766>]. Accessed 8 September 2020.

[4] Yulandi, Adi et al. 2016. "Genomic Sequence of *Klebsiella pneumoniae* HEMP-3, a Vitamin B12-Producing Strain from Indonesian Tempeh". *Genome Announcements* 4[1] : e01724-15.

[<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4767921/>]. Accessed 8 September 2020.

[5] Farida, H. et al. 2014. "Nasopharyngeal Carriage of *Streptococcus pneumoniae* in Pneumonia-Prone Age Groups in Semarang, Java Island, Indonesia". *PLoS One*. 9[1] : e87431. [<https://www.ncbi.nlm.nih.gov/pubmed/24498104>]. Accessed 8 September 2020.

[6] Rompis, A.L.T. et al. 1998. "Isolation of *Salmonella* spp slaughtered at Tanjung Benoa Denpasar". *Medical Journal of Indonesia* 19[1] : 57-63. [<http://mji.ui.ac.id/journal/index.php/mji/article/view/1114>]. Accessed 8 September 2020.

[7] Subekti, D. et al. 2001. "*Shigella* spp. surveillance in Indonesia: the emergence or reemergence of *S. dysenteriae*". *Emerging Infectious Diseases* 7[1] : 137-140. [<https://www.ncbi.nlm.nih.gov/pubmed/11266305>]. Accessed 8 September 2020.

[8] Rosana, Yeva et al. 1999. "Antimicrobial Susceptibility Pattern of *Neisseria gonorrhoeae* isolated from Female Commercial Sex Workers in Jakarta (Studi Resistensi *Neisseria gonorrhoeae* yang Diisolasi dan Pekerja Seks Komersial di Beberapa Tempat di Jakarta)". *Jurnal Mikrobiologi Indonesia* 4

[2] : 60-63.

[<http://repository.ipb.ac.id/bitstream/handle/123456789/42775/Yeva%20Rosana.pdf;jsessionid=90101C12F6EB15BA717A02AF511DBE21?sequence=1>]. Accessed 8 September 2020.

[9] Cucunawangsih et al. 2015. "Mycobacterium tuberculosis resistance pattern against first-line drugs in patients from urban

area". International Journal of Mycobacteriology 4

[4] : 302-305. [<https://www.sciencedirect.com/science/article/pii/S2212553115001326>]. Accessed 8 September 2020.

[10] World Health Organization (WHO). "The Ministry of Health (MoH) collaborates with WHO to build national capacity for implementation of Global Antimicrobial Resistance Surveillance System (GLASS) ".

[<http://origin.searo.who.int/indonesia/topics/tb/glass/en/>]. Accessed 7 September 2020.

[11] Ministry of Health of the Republic of Indonesia. 25 July 2019. "Directorate-General of Health Services Decree on the Implementation of National Reference Laboratory (NRL) and Sentinel Site within the implementation framework of Global Laboratory Antimicrobial Surveillance System (GLASS) (Penyampaian SK Direktur Jenderal Pelayanan Kesehatan Tentang Penetapan National Reference Laboratory (NRL) Dan Sentinel Site Dalam Rangka Implementasi Global Laboratory Antimicrobial Surveillance System (GLASS)).

[[http://www.pusat1.litbang.kemkes.go.id/images/2019/AMR\\_DOK/SK%20Dirjen%20Yankes%20ttg%20Penetapan%20NRL.pdf](http://www.pusat1.litbang.kemkes.go.id/images/2019/AMR_DOK/SK%20Dirjen%20Yankes%20ttg%20Penetapan%20NRL.pdf)]. Accessed 8 September 2020.

### 1.1.1c

**Does the government conduct environmental detection or surveillance activities (e.g., in soil, waterways) for antimicrobial residues or AMR organisms?**

Yes = 1 , No = 0

**Current Year Score: 0**

There is no evidence that the Government of Indonesia conducts detection or surveillance activities in the environment (e.g. in soil, waterways, etc.) for antimicrobial residues or AMR organisms. The Joint External Evaluation of IHR Core Capacities of the Republic of Indonesia from November 2017 does not mention any surveillance activities for antimicrobial residues or AMR organisms in soil and waterways. [1] The National Action Plan on Antimicrobial Resistance: Indonesia 2017-2019 established a National Surveillance Coordination Centre (NSCC) that is to be the national focal point for surveillance, detection, and response to AMR hazards. The plan indicates "antibiotic resistant organisms in representative environments (hospitals, animal production units, slaughterhouses, pharmaceutical manufacturing units etc.) and selected organisms in water and soil, with varying degrees of exposure to antibiotics will be mapped" as a goal to be met in 2018. [2] However, as of August 21, 2020, there is no mention on the website of the Ministry of Environment of whether that goal has been met, i.e. it does not mention any AMR surveillance activities in soil and waterways. [3] There is no mention that the Ministry of Environment conducts detection or surveillance activities for antimicrobial residues or AMR organisms in the 2018 World Health Organization global progress report on AMR or on the Ministry of Health's website. [4, 5]

[1] World Health Organisation (WHO). November 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Indonesia". [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2018.9/en/>]. Accessed 8 September 2020.

[2] Ministry of Health of the Republic of Indonesia. May 2017. "National Action Plan on Antimicrobial Resistance: Indonesia 2017-2019". [<https://puskespemdada.net/download/national-action-plan-antimicrobial-resistance-indonesia-2017-2019/>]. Accessed 8 September 2020.

[3] Ministry of Environment and Forestry of the Republic of Indonesia. [<http://www.menlhk.go.id/>]. Accessed 8 September 2020.

[4] Food and Agriculture Organisation of the United Nations (FAO), World Organisation for Animal Health (OIE), and World Health Organisation (WHO). 2018. "Monitoring Global Progress on Addressing Antimicrobial resistance: Analysis report of the second round of results of AMR country self-assessment survey".

[<http://apps.who.int/iris/bitstream/handle/10665/273128/9789241514422-eng.pdf>]. Accessed 8 September 2020.

[5] Ministry of Health of the Republic of Indonesia. [<https://www.kemkes.go.id/>]. Accessed 13 September 2020.

## 1.1.2 Antimicrobial control

### 1.1.2a

**Is there national legislation or regulation in place requiring prescriptions for antibiotic use for humans?**

Yes = 2 , Yes, but there is evidence of gaps in enforcement = 1 , No = 0

**Current Year Score: 2**

Indonesia has a national regulation in place requiring prescriptions for antibiotic use for humans. 'Regulation No. 2406 Year 2011' by the Ministry of Health provides guidelines on the use of antibiotics. Chapter IV, Section D indicates that doctors must write prescriptions for antibiotics and pharmacists have the responsibility of reviewing the prescriptions. Chapter II, Section B states that antibiotics may not be prescribed for infectious diseases caused by viruses or for self-limited infections. As part of the national antimicrobial stewardship strategy (Table 20 in the Regulations), some prescriptions may be sent back to the prescribing doctor so that he/she can suggest a more suitable alternative antibiotic. [1] There is no evidence to suggest that there is significant antibiotic usage without a prescription from a doctor or gaps in enforcement.

[1] Ministry of Health of the Republic of Indonesia. Regulation No. 2406 Year 2011. "General Guidelines on the Use of Antibiotics (Peraturan Menteri Kesehatan No. 2406 Tahun 2011 tentang Pedoman Umum Penggunaan Antibiotik)". [<https://farmalkes.kemkes.go.id/2014/03/pedoman-umum-penggunaan-antibiotik/>]. Accessed 8 September 2020.

### 1.1.2b

**Is there national legislation or regulation in place requiring prescriptions for antibiotic use for animals?**

Yes = 2 , Yes, but there is evidence of gaps in enforcement = 1 , No = 0

**Current Year Score: 2**

Indonesia has a national legislation that requires prescriptions for antibiotic use for animals. Law No. 18 Year 2009 on Animal Health and Husbandry governs animal health and livestock production, including the use of veterinary drugs for animals. Article 22 prohibits the use of antibiotics additives in animal feed. Articles 49 through 54 deal with veterinary drugs. Article 51 specifically stipulates that all veterinary medicine requires a prescription and must be administered by a veterinarian or an animal health worker under the supervision of a veterinarian. [1] The Directorate-General of Livestock Services of the Ministry of Agriculture is responsible for controlling livestock production, including animal health and quality. The Ministry of Fisheries is responsible for overseeing matters related to aquaculture production. [1, 2] There is no evidence of gaps in enforcement.

[1] Republic of Indonesia. Law No. 18 Year 2009. "Animal Health and Husbandry (Undang-undang Republik Indonesia Nomor 18 Tahun 2009 tentang Peternakan dan Kesehatan Hewan)".

[<http://ditjenpkh.pertanian.go.id/userfiles/regulasi/85453cb4e07dc5422595300f5d9a890f.pdf>]. Accessed 13 September 2020.

[2] Ministry of Maritime Affairs and Fisheries of the Republic of Indonesia. "Responsibilities and Function (Tugas dan Fungsi)". [<https://kkp.go.id/page/139-tugas-dan-fungsi>]. Accessed 13 September 2020.

## 1.2 ZOOBOTIC DISEASE

### 1.2.1 National planning for zoonotic diseases/pathogens

#### 1.2.1a

Is there national legislation, plans, or equivalent strategy documents on zoonotic disease?

Yes = 1, No = 0

**Current Year Score: 1**

Indonesia has several national regulations and strategic plans on zoonotic disease. Presidential Regulation No. 30 Year 2011 on Zoonotic Control calls for the strengthening of cross-sectoral zoonotic control systems, including the synchronization, guidance, supervision, monitoring and evaluation of policies, strategies, and programs. This integrated plan is now coordinated by the Coordinating Ministry for Human Development and Culture, after the Commission for Zoonosis Control was disbanded in 2016. [1,2] The Ministry of Health has an Action Plan for the Prevention and Control of Vector and Zoonotic Diseases for 2015-2019, which was updated in 2017. This plan covers capacity development, increased surveillance, monitoring, community awareness, technical supervision, and multisectoral coordination. It also lists yearly targets related to rabies, bird flu, leptospirosis, anthrax, and the brucellosis. [3] Agriculture Ministerial Decree No. 237 Year 2019 establishes 15 priority zoonotic diseases in Indonesia: Avian influenza; Rabies; Anthrax; Brucellosis; Leptospirosis; Japanese B. Encephalitis; Bovine Tuberculosis; Salmonellosis; Schistosomiasis; Q Fever; Campylobacteriosis; Trichinellosis; Paratuberculosis; Tpsoplasmosis; Cysticercosis/Taeniasis. [4] The Ministry of Agriculture's Directorate of Animal Health has published a Strategic Plan for 2015-2019 that calls for the surveillance and detection of zoonotic disease to follow the World Organisation for Animal Health (OIE) Terrestrial Animal Health Code. Zoonotic surveillance and detection activities include post-vaccination monitoring of animals for anthrax and rabies; early detection and the determination of sub-types and the post-vaccination and monitoring for the Avian Influenza virus; determination of prevalence for Brucellosis monitoring; extraction of brain samples from veterinary laboratories and facilities for animals that show signs of Bovine Spongiform Encephalopathy (BSE); and taking blood samples for Foot and Mouth Disease from high at-risk sites. [5] Ministry of Defence Regulation No. 40 Year 2014 on The Involvement of the Ministry of Defence's Health Units and the Indonesian National Army for Zoonosis also lists guidelines for the armed forces in the event of a pandemic outbreak involving zoonotic diseases. [6] This policy lists guidelines for the armed forces to follow in case of pandemics involving zoonotic diseases. The document explicitly mentions rabies, bird flu, anthrax, leptospirosis, plague, and brucellosis.

[1] President of the Republic of Indonesia. Presidential Regulation No. 30 Year 2011. "Zoonosis Management (Pengendalian Zoonosis)". [<https://peraturan.bpk.go.id/Home/Details/41196/perpres-no-30-tahun-2011>]. Accessed 8 September 2020.

[2] President of the Republic of Indonesia. Presidential Regulation No. 116 Year 2016. "On the Dissolution of the National Seed Agency, Bulk Guidance Control Agency, Economic and Financial Resilience Board, Steering Committee for the Development of Special Economic Zones on Batam Island, Bintan Island, and Karimun Island, National Team Standardization of Topographical Names, Indonesian Maritime Council, National Council of Free Trade Areas Free Port, National Spatial Planning Coordinating Board, and National Zoonotic Control Commission (Peraturan Presiden Republik Indonesia Nomor 116 Tahun 2016 tentang Pembubaran Badan Benih Nasional, Badan Pengendalian Bimbingan Massal, Dewan Pemantapan Ketahanan Ekonomi Dan Keuangan, Komite Pengarah Pengembangan Kawasan Ekonomi Khusus Di Pulau Batam, Pulau Bintan, Dan Pulau Karimun, Tim Nasional Pembakuan Nama Rupabumi, Dewan Kelautan Indonesia, Dewan Nasional Kawasan Perdagangan Bebas Dan Pelabuhan Bebas, Badan Koordinasi Penataan Ruang Nasional, Dan Komisi Nasional Pengendalian Zoonosis)". [<https://peraturan.bpk.go.id/Home/Details/41020/perpres-no-116-tahun-2016>]. Accessed 8 September 2020.

[3] Ministry of Health of the Republic of Indonesia. "Action Plan for Prevention and Management of Infectious Vector and Zoonotic Diseases Year 2015-2019 (Rencana Aksi Kegiatan Pencegahan dan Pengendalian Penyakit Tular Vektor dan Zoonotik Year 2015-2019)". [<https://e-renggar.kemkes.go.id/file2018/e-performance/1-465842-4tahunan-265.pdf>]. Accessed 8

September 2020.

[4] Ministry of Agriculture of the Republic of Indonesia. Decree No. 237 Year 2019. Determination of Priority Zoonoses (Penetapan Zoonosis Prioritas). [<http://keswan.ditjenpkh.pertanian.go.id/?p=2429>]. Accessed 8 September 2020.

[5] Directorate-General of Livestock and Animal Health of the Ministry of Agriculture of the Republic of Indonesia. 2016. "Strategic Plan for the Development of Livestock and Animal Health 2015-2019 (Rencana Strategis Pembangunan Peternakan dan Kesehatan Hewan 2015-2019 Direktorat Jenderal Peternakan dan Kesehatan Hewan, Kementerian Pertanian)". [[https://ditjenpkh.pertanian.go.id/userfiles/File/Renstra\\_PKH\\_TL\\_SAKIP.pdf?time=1518168855108](https://ditjenpkh.pertanian.go.id/userfiles/File/Renstra_PKH_TL_SAKIP.pdf?time=1518168855108)]. Accessed 8 September 2020.

[6] Ministry of Defence of the Republic of Indonesia. Regulation No. 40 Year 2014. "Involvement of Ministry of Defence Health Units and the National Indonesian Military in Zoonosis (Peraturan Menteri Pertahanan No. 40 Tahun 2014 Tentang Pelibatan Satuan Kesehatan Kementerian Pertahanan dan Tentara Nasional Indonesia Zoonosis)". [<https://www.kemhan.go.id/kuathan/wp-content/uploads/2017/02/Peraturan-Menteri-Pertahanan-Nomor-40-Tahun-2014-tentang-Pelibatan-Satuan-Kesehatan-Kementerian-Pertahanan-dan-Tentara-Nasional-Indonesia-dalam-Zoonosis.pdf>]. Accessed 8 September 2020.

### 1.2.1b

**Is there national legislation, plans or equivalent strategy document(s) which includes measures for risk identification and reduction for zoonotic disease spillover events from animals to humans?**

Yes = 1 , No = 0

**Current Year Score: 0**

There is no publicly available evidence that Indonesia has a national legislation which includes measures for risk identification and reduction for zoonotic disease spillover events from animals to humans. There is no evidence available on the websites of the Ministry of Health, Ministry of Agriculture, or the National Institute of Health Research and Development to indicate that zoonotic disease policy documents identify the pathways for risk of zoonotic outbreaks or disease spillovers from animals to humans, and the measures to be taken by the country to address and reduce the potential risks for such an outbreak. [1,2,3]

Though risk identification and reduction for zoonotic disease spillover events from animals to humans are not specifically outlined, Indonesia does have several national regulations and strategic plans on zoonotic disease. These include: the Presidential Regulation No. 30 Year 2011 on Zoonotic Control, the Ministry of Health has an Action Plan for the Prevention and Control of Vector and Zoonotic Diseases for 2015-2019, the Agriculture Ministerial Decree No. 237 Year 2019, the Ministry of Agriculture's Directorate of Animal Health has published a Strategic Plan for 2015-2019, the Ministry of Defence Regulation No. 40 Year 2014, and the Government Regulation No. 95 Year 2012 on Veterinary Community Health and Animal Welfare. [4, 5, 6, 7, 8]

It is worth nothing however, that the Food and Agriculture Organization Emergency Center for Transboundary Animal Diseases (FAO-ECTAD) Indonesia, with funding support from the Australian Government Department of Foreign Affairs and Trade (DFAT), has initiated a project titled "Preparation of plan for reducing the risk of emerging zoonotic disease spill over events in high-risk wildlife wet markets and their associated value chains." This project lists September 2020 to June 2021 as its implementation date. However, there is no further information regarding this project on the websites of the FAO or DFAT. [9,10,11]

[1] Ministry of Health of the Republic of Indonesia. [<https://www.kemkes.go.id/>]. Accessed 8 September 2020.

[2] Ministry of Agriculture of the Republic of Indonesia. [<http://www.pertanian.go.id/index.php>]. Accessed 8 September 2020.



- [3] Ministry of Research, Technology, and Higher Education of the Republic of Indonesia. [<https://ristekdikti.go.id/>]. Accessed 8 September 2020.
- [4] President of the Republic of Indonesia. Presidential Regulation No. 30 Year 2011. "Zoonosis Management (Pengendalian Zoonosis)". [<https://peraturan.bpk.go.id/Home/Details/41196/perpres-no-30-tahun-2011>]. Accessed 8 September 2020.
- [5] Ministry of Health of the Republic of Indonesia. "Action Plan for Prevention and Management of Infectious Vector and Zoonotic Diseases Year 2015-2019 (Rencana Aksi Kegiatan Pencegahan dan Pengendalian Penyakit Tular Vektor dan Zoonotik Year 2015-2019)". [<https://e-renggar.kemkes.go.id/file2018/e-performance/1-465842-4tahunan-265.pdf>]. Accessed 8 September 2020.
- [6] Ministry of Agriculture of the Republic of Indonesia. Decree No. 237 Year 2019. Determination of Priority Zoonoses (Penetapan Zoonosis Prioritas). [<http://keswan.ditjenpkh.pertanian.go.id/?p=2429>]. Accessed 8 September 2020.
- [7] Ministry of Defence of the Republic of Indonesia. Regulation No. 40 Year 2014. "Involvement of Ministry of Defence Health Units and the National Indonesian Military in Zoonosis (Peraturan Menteri Pertahanan No. 40 Tahun 2014 Tentang Pelibatan Satuan Kesehatan Kementerian Pertahanan dan Tentara Nasional Indonesia Zoonosis)". [<https://www.kemhan.go.id/kuathan/wp-content/uploads/2017/02/Peraturan-Menteri-Pertahanan-Nomor-40-Tahun-2014-tentang-Pelibatan-Satuan-Kesehatan-Kementerian-Pertahanan-dan-Tentara-Nasional-Indonesia-dalam-Zoonosis.pdf>]. Accessed 8 September 2020.
- [8] President of the Republic of Indonesia. Government Regulation No. 95 Year 2012. Veterinary Community Health and Animal Welfare (Kesehatan Masyarakat Veteriner dan Kesejahteraan Hewan). [<https://www.bphn.go.id/data/documents/12pp095.pdf>]. Accessed 8 September 2020.
- [9] Food and Agriculture Organization of the United Nations (FAO). "Preparation of plan for reducing the risk of emerging zoonotic disease spill over events in high-risk wildlife wet markets and their associated value chains". [<http://www.fao.org/emergencies/fao-in-action/projects/detail/en/c/1302128/>]. Accessed 13 April 2021.
- [10] Food and Agriculture Organization of the United Nations (FAO). [<http://www.fao.org/home/en/>]. Accessed 13 April 2021.
- [11] Department of Foreign Affairs and Trade of the Australian Government (DFAT). [<https://www.dfat.gov.au/>]. Accessed 13 April 2021.

### 1.2.1c

**Is there national legislation, plans, or guidelines that account for the surveillance and control of multiple zoonotic pathogens of public health concern?**

Yes = 1 , No = 0

**Current Year Score: 1**

Indonesia has several national regulations and strategic plans that account for the surveillance and control of multiple zoonotic pathogens of public health concern. Presidential Regulation No. 30 Year 2011 on Zoonotic Control calls for the strengthening of cross-sectoral zoonotic control systems, including the synchronization, guidance, supervision, monitoring and evaluation of policies, strategies, and programs. [1] This integrated plan is now coordinated by the Coordinating Ministry for Human Development and Culture, after the Commission for Zoonosis Control was disbanded in 2016. [2] The Ministry of Health has an Action Plan for the Prevention and Control of Vector and Zoonotic Diseases for 2015-2019, which was updated in 2017. This plan covers capacity development, increased surveillance, monitoring, community awareness, technical supervision, and multisectoral coordination. The plan explicitly mentions mitigation and control strategies and output indicators for malaria, rabies, leptospirosis, anthrax, pes, filariasis, intestinal parasites, schistosomiasis, and arbovirosis. [3] The Ministry of Agriculture's Directorate of Animal Health has published a Strategic Plan for 2015-2019 that calls for the surveillance and detection of zoonotic disease to follow the World Organisation for Animal Health (OIE) Terrestrial Animal Health Code. Zoonotic surveillance and detection activities include post-vaccination monitoring of animals for anthrax and rabies; early detection and the determination of sub-types and the post-vaccination and monitoring for the Avian Influenza virus; determination of prevalence for Brucellosis monitoring; extraction of brain samples from veterinary laboratories and

facilities for animals that show signs of Bovine Spongiform Encephalopathy (BSE); and taking blood samples for Foot and Mouth Disease from high at-risk sites. [4] The Joint External Evaluation for Indonesia, conducted in November 2017, mentions that the Ministry of Defence has a policy on zoonotic control (Ministry of Defence Regulation No. 40 of 2014 on the Involvement of the Ministry of Defence and the Indonesian National Military in Zoonosis). This policy lists guidelines for the armed forces to follow in case of pandemics involving zoonotic diseases. The document explicitly mentions rabies, bird flu, anthrax, leptospirosis, plague, and brucellosis. [5]

- [1] President of the Republic of Indonesia. Presidential Regulation No. 30 Year 2011. "Zoonosis Control (Pengendalian Zoonosis)." [<https://peraturan.bpk.go.id/Home/Details/41196/perpres-no-30-tahun-2011>]. Accessed 8 September 2020.
- [2] President of the Republic of Indonesia. Presidential Regulation No. 116 Year 2016. "The Dissolution of the National Seed Agency, Bulk Guidance Control Agency, Economic and Financial Resilience Board, Steering Committee for the Development of Special Economic Zones on Batam Island, Bintan Island, and Karimun Island, National Team Standardization of Topographical Names, Indonesian Maritime Council, National Council of Free Trade Areas Free Port, National Spatial Planning Coordinating Board, and National Zoonotic Control Commission (Peraturan Presiden Republik Indonesia Nomor 116 Tahun 2016 tentang Pembubaran Badan Benih Nasional, Badan Pengendalian Bimbingan Massal, Dewan Pemantapan Ketahanan Ekonomi Dan Keuangan, Komite Pengarah Pengembangan Kawasan Ekonomi Khusus Di Pulau Batam, Pulau Bintan, Dan Pulau Karimun, Tim Nasional Pembakuan Nama Rupabumi, Dewan Kelautan Indonesia, Dewan Nasional Kawasan Perdagangan Bebas Dan Pelabuhan Bebas, Badan Koordinasi Penataan Ruang Nasional, Dan Komisi Nasional Pengendalian Zoonosis)". [<https://peraturan.bpk.go.id/Home/Details/41020/perpres-no-116-tahun-2016>]. Accessed 8 September 2020.
- [3] Ministry of Health of the Republic of Indonesia. "Action Plan for Prevention and Management of Infectious Vector and Zoonotic Diseases Year 2015-2019 (Rencana Aksi Kegiatan Pencegahan dan Pengendalian Penyakit Tular Vektor dan Zoonotik Year 2015-2019)". [<https://e-renggar.kemkes.go.id/file2018/e-performance/1-465842-4tahunan-265.pdf>]. Accessed 8 September 2020.
- [4] Directorate-General of Livestock and Animal Health of the Ministry of Agriculture of the Republic of Indonesia. 2016. "Strategic Plan for the Development of Livestock and Animal Health 2015-2019 (Rencana Strategis Pembangunan Peternakan dan Kesehatan Hewan 2015-2019 Direktorat Jenderal Peternakan dan Kesehatan Hewan, Kementerian Pertanian)". [[https://ditjenpkh.pertanian.go.id/userfiles/File/Renstra\\_PKH\\_TL\\_SAKIP.pdf?time=1518168855108](https://ditjenpkh.pertanian.go.id/userfiles/File/Renstra_PKH_TL_SAKIP.pdf?time=1518168855108)]. Accessed 8 September 2020.
- [5] Ministry of Defence of the Republic of Indonesia. "On the Involvement of the Ministry of Defence and the Indonesian National Military in Zoonosis (Peraturan Menteri Pertahanan Republik Indonesia Nomor 40 Tahun 2014 tentang Pelibatan Satuan Kesehatan Kementerian Pertahanan dan Tentara Nasional Indonesia dalam Zoonosis)". [<https://www.kemhan.go.id/kuathan/wp-content/uploads/2017/02/Peraturan-Menteri-Pertahanan-Nomor-40-Tahun-2014-tentang-Pelibatan-Satuan-Kesehatan-Kementerian-Pertahanan-dan-Tentara-Nasional-Indonesia-dalam-Zoonosis.pdf>]. Accessed 8 September 2020.

### 1.2.1d

**Is there a department, agency, or similar unit dedicated to zoonotic disease that functions across ministries?**

Yes = 1, No = 0

**Current Year Score: 1**

There is evidence that Indonesia has a government unit dedicated to zoonotic diseases that function across ministries.

The Coordinating Ministry for Human Development and Culture coordinates and facilitates all stakeholders relevant in a One Health approach to zoonotic diseases, including: the Ministry of Agriculture, Health, Environment and Forestry, and Disaster Management Authority. [1] After the Commission for Zoonosis Control was disbanded in 2016, the Coordinating Ministry for Human Development and Culture took up the role of managing cross-sectoral zoonotic control systems, including the

synchronization, guidance, supervision, monitoring and evaluation of policies, strategies, and programs. [2] Under Presidential Regulation No. 30 Year 2011 on Zoonotic Control, this cross-sectoral zoonotic control system is implemented through surveillance, pre-identification, mitigation, and restriction of transmittance and involved various cross-program and cross-sector initiatives between government, private sector and communities. [3]

[1] Food and Agriculture of the United Nations (FAO), World Organisation for Animal Health (OIE), World Health Organization (WHO). "Taking a Multisectoral, One Health Approach: A Tripartite Guide to Addressing Zoonotic Diseases in Countries". [https://www.oie.int/fileadmin/Home/eng/Media\_Center/docs/EN\_TripartiteZoonosesGuide\_webversion.pdf]. Accessed 8 September 2020.

[2] President of the Republic of Indonesia. Presidential Regulation No. 116 Year 2016. "The Dissolution of the National Seed Agency, Bulk Guidance Control Agency, Economic and Financial Resilience Board, Steering Committee for the Development of Special Economic Zones on Batam Island, Bintan Island, and Karimun Island, National Team Standardization of Topographical Names, Indonesian Maritime Council, National Council of Free Trade Areas Free Port, National Spatial Planning Coordinating Board, and National Zoonotic Control Commission (Peraturan Presiden Republik Indonesia Nomor 116 Tahun 2016 tentang Pembubaran Badan Benih Nasional, Badan Pengendalian Bimbingan Massal, Dewan Pemantapan Ketahanan Ekonomi Dan Keuangan, Komite Pengarah Pengembangan Kawasan Ekonomi Khusus Di Pulau Batam, Pulau Bintan, Dan Pulau Karimun, Tim Nasional Pembakuan Nama Rupabumi, Dewan Kelautan Indonesia, Dewan Nasional Kawasan Perdagangan Bebas Dan Pelabuhan Bebas, Badan Koordinasi Penataan Ruang Nasional, Dan Komisi Nasional Pengendalian Zoonosis)". [https://peraturan.bpk.go.id/Home/Details/41020/perpres-no-116-tahun-2016]. Accessed 8 September 2020.

[3] President of the Republic of Indonesia. Presidential Regulation No. 30 Year 2011. "Zoonosis Control (Pengendalian Zoonosis)". [https://peraturan.bpk.go.id/Home/Details/41196/perpres-no-30-tahun-2011]. Accessed 8 September 2020.

## 1.2.2 Surveillance systems for zoonotic diseases/pathogens

### 1.2.2a

**Does the country have a national mechanism (either voluntary or mandatory) for owners of livestock to conduct and report on disease surveillance to a central government agency?**

Yes = 1 , No = 0

**Current Year Score: 1**

Indonesia has a national voluntary mechanism for owners of livestock to conduct and report disease surveillance to a central government agency. An animal health information system exists, and livestock owners can register and be trained to become a village reporter. The iSIKHNAS (Sistem Informasi Kesehatan Hewan Nasional) system was developed by the directorate-general of animal husbandry and welfare within the Ministry of Agriculture with support from the Australia-Indonesia Partnership for Emerging Infectious Disease. [1,2] iSIKHNAS collects data via text messages from the field and combines disease reports with laboratory, animal traffic, slaughterhouse, production, and population data. [2] This online system is available to livestock owners, veterinarians, village data aggregators, meat inspectors, and other relevant stakeholders. [2, 3, 4] A 2018 usage report indicates 5 million farmers are registered, and that the system received over 1 million animal health reports. Animal health reports includes information such as: disease, treatment, case development, animal movement, vaccination, definitive diagnoses, clinical signs, zoonotic disease suspects and culling. [5] The system is owned, monitored, and managed by the Ministry of Agriculture, and data is used by the Ministry of Agriculture and other veterinary services at all levels to perform evidence-based decisions and analysis, such as: producing maps of livestock movements and to trace animal origins, listing current animal disease reports in villages for animal health workers to perform follow-ups, and monitoring breeding efficacy and artificial insemination programs. [1]

- [1] Ausvet. "Indonesia's National Animal Health and Production Information System". [<https://www.ausvet.com.au/our-work/projects/indonesias-national-animal-health-information-system/>]. Accessed 8 September 2020.
- [2] iSIKHNAS. "iSIKHNAS". [<https://www.isikhnas.com/>]. Accessed 8 September 2020.
- [3] iSIKHNAS. "Wiki Sumber Informasi iSIKHNAS (Wiki Information Source for iSIKHNAS)". [<http://wiki.isikhnas.com/w/Manuals:Registration/id>]. Accessed 8 September 2020.
- [4] Directorate of Crops, Agriculture, and Fisheries of the City of Pontianak. 7 November 2014. "Sistem Informasi Kesehatan Hewan Nasional (iSIKHNAS)". [<http://pertanian.pontianakkota.go.id/artikel/28-sistem-informasi-kesehatan-hewan-nasional-isikhnas.html>]. Accessed 8 September 2020.
- [5] iSIKHNAS. "Performance Report January - December 2018 (Laporan Kinerja Januari - Desember 2018)". [<http://wwwtest.isikhnas.com/public/wp-content/uploads/2019/06/Laporan-kinerja-iSIKHNAS-2018.pdf>]. Accessed 8 September 2020.

### 1.2.2b

#### Is there legislation and/or regulations that safeguard the confidentiality of information generated through surveillance activities for animals (for owners)?

Yes = 1 , No = 0

**Current Year Score: 0**

Indonesia's data privacy regulations do not explicitly safeguard the confidentiality of information generated through surveillance activities for animals (for owners). The Ministry of Communication and Informatics issued Regulation No. 20 Year 2016 on Personal Data Protection in Electronic Systems, which requires that electronic system operators take precautions to safeguard personal data. However, this regulation does not specifically address surveillance, property protections, or protection for information generated through animal disease surveillance activities. [1] In 2018, the Indonesian government issued a new draft personal data protection law. [2] On January 24, 2020 President Joko Widodo signed the final draft of this draft law, which is expected to be enacted in 2020. [3] There is no evidence that safeguards exist for the confidentiality of information generated through surveillance activities for animals (for owners) on the websites of the national animal health information system iSIKHNAS, the Ministry of Communication and Informatics or the Ministry of Agriculture. [4,5,6]

[1] Ministry of Communication and Informatics of the Republic of Indonesia. Regulation No. 20 Year 2016. "Personal Data Protection in Electronic Systems (Peraturan Menteri Nomor 20 Tahun 2016 tentang Perlindungan Data Pribadi dalam Sistem Elektronik)".

[[https://jdih.kominfo.go.id/produk\\_hukum/unduh/id/553/t/peraturan+menteri+komunikasi+dan+informatika+nomor+20+tahun+2016+tanggal+1+desember+2016](https://jdih.kominfo.go.id/produk_hukum/unduh/id/553/t/peraturan+menteri+komunikasi+dan+informatika+nomor+20+tahun+2016+tanggal+1+desember+2016)]. Accessed 8 September 2020.

[2] Ministry of Communication and Informatics of the Republic of Indonesia. "Personal Data Protection Bill (Rancangan Undang-Undang Perlindungan Data Pribadi)". [<https://aptika.kominfo.go.id/2019/09/rancangan-undang-undang-perlindungan-data-pribadi/>]. Accessed October 8 2020.

[3] Damiana, Jessica. 28 January 2020. "Indonesia to step up data protection with new bill amid booming digital economy". [<https://www.reuters.com/article/us-indonesia-data/indonesia-to-step-up-data-protection-with-new-bill-amid-booming-digital-economy-idUSKBN1ZR1NL>]. Accessed 8 September 2020.

[4] iSIKHNAS. "iSIKHNAS". [<https://www.isikhnas.com/>]. Accessed 8 October 2020.

[5] Ministry of Communication and Informatics of the Republic of Indonesia. [<https://www.kominfo.go.id/>]. Accessed 8 October 2020.

[6] Ministry of Agriculture of the Republic of Indonesia. [<http://www.pertanian.go.id/>]. Accessed 8 September 2020.

### 1.2.2c

Does the country conduct surveillance of zoonotic disease in wildlife (e.g., wild animals, insects, other disease vectors)?

Yes = 1, No = 0

Current Year Score: 0

There is insufficient evidence that Indonesia conducts surveillance of zoonotic diseases in wildlife. The Ministry of Environment and Forestry launched a Wildlife Health Information System (SehatSatli) in May 2018 as an effort to mitigate zoonotic disease vectors originating from wildlife sources under a One Health approach. [1] As of August 2018, 129 Ministry of Environment and Forestry field staff are trained to use the system, which includes Forest Ecosystem Controllers (Pengendali Ekosistem Hutan - PEH) and Forestry Police (Polisi Kehutanan - Polhut) that are trained to identify and report zoonotic disease symptoms in wild animals through the system, in addition to incidences of hunting, accidents and other diseases. [2] Reports of wildlife that are zoonotic disease suspects are verified by a veterinarian. [3] However, there is no further information as to what tests are conducted on wildlife suspects, or if other tests are regularly conducted in specific wild animal populations, soils, or natural waterways. There is no further information on this topic on the websites of the Ministry of Environment and Forestry, or the Ministry of Agriculture. [4,5]

The SehatSatli Wildlife Health Information System is supported by Food and Agriculture Organization - Emergency Center for Transboundary Animal Diseases Indonesia (FAO ECTAD Indonesia) and is planned to be integrated with the i-SIKHNAS (animal health reporting) system from the Ministry of Agriculture and EWARS (early warning and response) system from the Ministry of Health under a new information sharing platform for Zoonotic and Emerging Infectious Diseases called SIZE 2.0. The new integrated system will be coordinated by the Coordinating Ministry for Human Development and Cultural Affairs. [6,7]

- [1] Ministry of Environment and Forestry of the Republic of Indonesia. 8 October 2018. "Sehatsatli, Wild Animal Health Reporting System (Sehatsatli, Sistem Pelaporan Kesehatan Satwa Liar)". [[https://www.menlhk.go.id/site/single\\_post/1357/sehatsatli-sistem-pelaporan-kesehatan-satwa-liar](https://www.menlhk.go.id/site/single_post/1357/sehatsatli-sistem-pelaporan-kesehatan-satwa-liar)]. Accessed 8 September 2020.
- [2] Sari, Eka et al. 2018. "OH-6 Wildlife Health Reporting Information System (SEHATSATLI) in the Context of Integrating Wildlife Sourced Zoonoses Prevention and Control through a One Health Approach (OH-6 Sistem Informasi Pelaporan Kesehatan Satwa Liar (SEHATSATLI) dalam Rangka Integrasi Pencegahan dan Pengendalian Zoonosis Bersumber Satwa Liar Melalui Pendekatan One Health)". [<http://journal.ipb.ac.id/index.php/hemera/article/view/23987>]. Accessed 8 October 2020.
- [3] SEHATSATLI Wildlife Health Information System of the Ministry of Environment and Forestry of the Republic of Indonesia. [<http://sehatsatli.menlhk.go.id/>]. Accessed 8 October 2020.
- [4] Ministry of Environment and Forestry of the Republic of Indonesia. [<http://www.menlhk.go.id/>]. Accessed 8 September 2020.
- [5] Ministry of Agriculture of the Republic of Indonesia. [<http://www.pertanian.go.id/>]. Accessed 8 September 2020.
- [6] Food and Agriculture Organization of the United Nations. 10 February 2020. "Animal-to-human infectious disease information system size 2.0 application". [<http://www.fao.org/indonesia/news/detail-events/en/c/1262500/>]. Accessed 8 September 2020.
- [7] SIZE 2.0. "Zoonosis and Emerging Infectious Disease Information System (Sistem Informasi Zoonosis dan EID)". [<http://www.onehealth-size.id/guest>]. Accessed 8 September 2020.

### 1.2.3 International reporting of animal disease outbreaks

#### 1.2.3a

Has the country submitted a report to OIE on the incidence of human cases of zoonotic disease for the last calendar year?

Yes = 1, No = 0

Current Year Score: 0

2019

OIE WAHIS database

## 1.2.4 Animal health workforce

### 1.2.4a

Number of veterinarians per 100,000 people

Input number

Current Year Score: 1.64

2018

OIE WAHIS database

### 1.2.4b

Number of veterinary para-professionals per 100,000 people

Input number

Current Year Score: 2.01

2018

OIE WAHIS database

## 1.2.5 Private sector and zoonotic

### 1.2.5a

Does the national plan on zoonotic disease or other legislation, regulations, or plans include mechanisms for working with the private sector in controlling or responding to zoonoses?

Yes = 1 , No = 0

Current Year Score: 1

Indonesia has national plans on zoonotic diseases that include mechanisms for working with the private sector in controlling or responding to zoonoses. The Joint External Evaluation for Indonesia from November 2017 indicates that the zoonotic disease control efforts overseen by the National Zoonosis Control Commission (KNPZ) involves various cross-sector initiatives (public and private). [1] Since the disbandment of KNPZ through Presidential Regulation No. 116 Year 2016, the Coordinating Ministry for Human Development and Cultural Affairs has taken on this role.[2] The Ministry of Agriculture's 2015-2019 Directorate of Animal Health Strategic Plan contains measures to integrate the private sector into financing and infrastructure development for emergency preparedness and for the eradication of contagious zoonotic diseases. The plan calls for the development of a certification system for good veterinary medicine practices (Cara Pembuatan Obat Hewan Yang Baik, or CPOHB). The plan also calls for periodic stakeholder meetings to advise the Indonesian Animal Health Society (Masyarakat Kesehatan Hewan Indonesia) and for cost sharing with the private sector in the context of exotic diseases

awareness. [3] There is no information on private sector mechanisms for working with the private sector in controlling or responding to zoonoses on the website of the Ministry of Health. [4]

[1] World Health Organisation (WHO). 20-24 November 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Indonesia". [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2018.9/en/>]. Accessed 25 November 2018.

[2] President of the Republic of Indonesia. Presidential Regulation No. 116 Year 2016. "The Dissolution of the National Seed Agency, Bulk Guidance Control Agency, Economic and Financial Resilience Board, Steering Committee for the Development of Special Economic Zones on Batam Island, Bintan Island, and Karimun Island, National Team Standardization of Topographical Names, Indonesian Maritime Council, National Council of Free Trade Areas Free Port, National Spatial Planning Coordinating Board, and National Zoonotic Control Commission (Peraturan Presiden Republik Indonesia Nomor 116 Tahun 2016 tentang Pembubaran Badan Benih Nasional, Badan Pengendalian Bimbingan Massal, Dewan Pemantapan Ketahanan Ekonomi Dan Keuangan, Komite Pengarah Pengembangan Kawasan Ekonomi Khusus Di Pulau Batam, Pulau Bintan, Dan Pulau Karimun, Tim Nasional Pembakuan Nama Rupabumi, Dewan Kelautan Indonesia, Dewan Nasional Kawasan Perdagangan Bebas Dan Pelabuhan Bebas, Badan Koordinasi Penataan Ruang Nasional, Dan Komisi Nasional Pengendalian Zoonosis)". [<https://peraturan.bpk.go.id/Home/Details/41020/perpres-no-116-tahun-2016>]. Accessed 8 September 2020.

[3] Directorate of Animal Health of the Ministry of Agriculture of the Republic of Indonesia. "Directorate of Animal Health Strategic Plan 2015-2019 (Rencana Strategis Direktorat Kesehatan Hewan 2015-2019)".

[<http://sakup.pertanian.go.id/admin/file/RENSTRA%20DITKESWAN%202015-2019.pdf>]. Accessed 8 September 2020.

[4] Ministry of Health of the Republic of Indonesia. [<http://kemenkes.go.id/>]. Accessed 8 October 2020.

## 1.3 BIOSECURITY

### 1.3.1 Whole-of- government biosecurity systems

#### 1.3.1a

**Does the country have in place a record, updated within the past five years, of the facilities in which especially dangerous pathogens and toxins are stored or processed, including details on inventories and inventory management systems of those facilities?**

Yes = 1 , No = 0

**Current Year Score: 0**

There is some but insufficient evidence that Indonesia has in place a record, updated within the past 5 years, of the facilities in which especially dangerous pathogens and toxins are stored or processed, including details on inventories and inventory management systems of those facilities. Indonesia has a National Standard for its Laboratory Biorisk Management System (SNI8340:2016), stipulating that laboratories must ensure an accurate, updated and maintained inventory of biological agents and toxins with backup systems [1]. A technical implementation guide for this standard has also been published in 2017 (SNI8434:2017). As of March 2020, the current standard is being revised to follow the in 2019 the International Standardization Organization's (ISO) standard for Biorisk Management for Laboratories and Other Related Organizations (ISO 35001:2019). [2] However, although a national accreditation board exists, a list of laboratories with accreditation is inaccessible and there is insufficient evidence that this national standard is practiced in laboratories.

The Joint External Evaluation for Indonesia from November 2017 does not mention a record of where especially dangerous pathogens were stored or processed. [3] There is no publicly available information on inventories of dangerous pathogens and toxins to be found on the websites of the Ministry of Health, Ministry of Defence, Ministry of Agriculture, and Ministry for Research and Technology, the National Institute of Health Research and Development, or the VERTIC database.

[4,5,6,7,8,9]. NIHRD has developed an "Institution Biorisk Laboratory Manual" in 2019 that seeks to improve biosafety and

biosecurity measures for lab procedures, research, and management of potentially dangerous pathogens. [10] Although Indonesia submitted Confidence Building Measures in 2015, access to the report (and the reports of previous years) is restricted, and it is unknown if it contains information on this matter. [11]

- [1] Badan Standar Nasional. 2016. "Laboratory Biorisk Management System (Sistem Manajemen Biorisiko Laboratorium)". [[https://www.academia.edu/29251317/Sistem\\_manajemen\\_biorisiko\\_laboratorium](https://www.academia.edu/29251317/Sistem_manajemen_biorisiko_laboratorium)]. Accessed 8 September 2020.
- [2] Badan Standar Nasional. 27 March 2020. Press Release No. 1044 Year 2020. "BSN Revises SNI 8340:206 Laboratorium Biorisk Management System (BSN Revisi SNI 8340:2016 Biorisk Laboratorium Management System)". [<https://www.bsn.go.id/main/berita/detail/11023/siaran-pers-bsn-revisi-sni-83402016-sistem-manajemen-biorisiko-laboratorium>]. Accessed 8 September 2020.
- [3] World Health Organisation (WHO). 20-24 November 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Indonesia". [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2018.9/en/>]. Accessed 8 September 2020.
- [4] Ministry of Health of the Republic of Indonesia. [<http://kemkes.go.id/>]. Accessed 8 September 2020.
- [5] Ministry of Defence of the Republic of Indonesia. [<https://www.kemhan.go.id/>]. Accessed 8 September 2020.
- [6] Ministry of Agriculture of the Republic of Indonesia. [<http://www.pertanian.go.id/index.php>]. Accessed 8 September 2020.
- [7] Ministry of Research, Technology, and Higher Education of the Republic of Indonesia. [<https://ristekdikti.go.id/>]. Accessed 8 September 2020.
- [8] Sasono, Pretty. 2012. "Engineering Control: Challenges in Maintaining a BSL-3". In *Biosecurity Challenges of the Global Expansion of High-Containment Biological Laboratories: Summary of a Workshop*. Washington, DC: National Academies Press. [<https://www.nap.edu/read/13315/chapter/9>]. Accessed 8 September 2020.
- [9] VERTIC Database. "BWC Legislation Database". [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/i/>]. Accessed 8 October 2020.
- [10] National Institute of Health Research and Development of the Republic of Indonesia. "Institution Biorisk Laboratory Manual (Pedoman Biorisiko Laboratorium Institusi)". [[http://repository.litbang.kemkes.go.id/3870/1/Buku\\_Biorisk.pdf](http://repository.litbang.kemkes.go.id/3870/1/Buku_Biorisk.pdf)]. Accessed 8 October 2020.
- [11] Biological Weapons Convention (BWC) Electronic Confidence Building Measures Portal. "Indonesia". [<https://bwc-ecbm.unog.ch/state/indonesia>]. Accessed 8 September 2020.

### 1.3.1b

**Does the country have in place legislation and/or regulations related to biosecurity which address requirements such as physical containment, operation practices, failure reporting systems, and/or cybersecurity of facilities in which especially dangerous pathogens and toxins are stored or processed?**

Yes = 1 , No = 0

**Current Year Score: 0**

There is some but insufficient evidence that Indonesia has legislation or regulations on biosecurity requirements such as physical containment, operation practices, failure reporting systems, and cybersecurity of facilities in which especially dangerous pathogens and toxins are stored or processed. The National Institute of Health Research and Development's Institution Biorisk Laboratory Manual, which was published in 2019, cover general biosafety and biosecurity requirements to be utilized in but does not contain details on specific physical containment, reporting systems or cybersecurity requirements for handling especially dangerous pathogens. [1] According to the Joint External Evaluation (JEE) for Indonesia from November 2017, the country "has come a long way in terms of structured and strategic implementation of biosafety and biosecurity," but the JEE stops short of declaring biosecurity legislation or regulations to be in place. The JEE notes that the whole-of-government biosafety and biosecurity system has a "legislative foundation", but national guidelines for biosafety and biosecurity still need to be finalized and enforced. [2] The JEE references Health Ministerial Decree No. 657 Year 2009,



which pertains to certain aspects of managing clinical specimens and biological material, but contains few specific details. [2,3] The JEE asserts that "proper containment is available, overseen by the National Authority for Containment (NAC)," but the NAC does not have an accessible website. The JEE also references Health Ministerial Decree No. 835 Year 2009, which specifies biosafety and biosecurity guidelines for microbiology and biomedical laboratories, but the full text of the decree is not available online. [2, 4] Although Indonesia submitted Confidence Building Measures in 2015, access to the report (and the reports of previous years) is restricted, and it is unknown if it contains information on this matter. [5] There is no mention of specific biosecurity requirements for the storage or processing of especially dangerous pathogens and toxins on the websites of the Ministry of Defence, the Ministry of Agriculture, the Ministry of Health, the National Institute for Health Research and Development, or the VERTIC database. [6,7,8,9,10]

[1] National Institute of Health Research and Development of the Republic of Indonesia. "Institution Biorisk Laboratory Manual (Pedoman Biorisiko Laboratorium Institusi)". [[http://repository.litbang.kemkes.go.id/3870/1/Buku\\_Biorisk.pdf](http://repository.litbang.kemkes.go.id/3870/1/Buku_Biorisk.pdf)]. Accessed 8 October 2020.

[2] World Health Organisation (WHO). 20-24 November 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Indonesia". [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2018.9/en/>]. Accessed 8 September 2020.

[3] Ministry of Health of the Republic of Indonesia. Decree No. 657/Menkes/Per/VIII/2009. "On Transfer and Utilization of Clinical Specimens, Biological Material, and its Contained Data (Pengiriman dan Penggunaan Spesimen Klinik, Materi Biologik dan Muatan Informasinya)". [[http://www.iasmed.org/regulation/PERMENKES\\_NO657\\_2009\\_spesimen.pdf](http://www.iasmed.org/regulation/PERMENKES_NO657_2009_spesimen.pdf)]. Accessed 8 September 2020.

[4] Ministry of Health of the Republic of Indonesia. Decree No. 835/MENKES/SK/IX/2009. "Guidelines on Biosafety and Biosecurity for Microbiology and Biomedical Laboratories (Pedoman Keamanan Laboratorium Mikrobiologi dan Biomedis)". [<http://www.pdpersi.co.id/peraturan/kepmenkes/kmk6052008.pdf>]. Accessed 8 September 2020.

[5] Biological Weapons Convention (BWC) Electronic Confidence Building Measures Portal. "Indonesia". [<https://bwc-ecbm.unog.ch/state/indonesia>]. Accessed 8 September 2020.

[6] Ministry of Defence of the Republic of Indonesia. [<https://www.kemhan.go.id/>]. Accessed 8 September 2020.

[7] Ministry of Agriculture of the Republic of Indonesia. [<http://www.pertanian.go.id/index.php>]. Accessed 8 September 2020.

[8] Ministry of Health of the Republic of Indonesia. [<http://kemkes.go.id/>]. Accessed 8 September 2020.

[9] National Institute of Health Research and Development of the Republic of Indonesia. [<https://www.litbang.kemkes.go.id/>]. Accessed 8 October 2020.

[10] VERTIC Database. "BWC Legislation Database". [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/i/>]. Accessed 8 October 2020.

### 1.3.1c

**Is there an established agency (or agencies) responsible for the enforcement of biosecurity legislation and regulations?**

Yes = 1, No = 0

**Current Year Score: 0**

There is no established agency responsible for the enforcement of biosecurity legislation and regulations. The National Standardization Body (Badan Standar Nasional), a non-ministry government agency established through Law No. 24 Year 2014 on Standardization and Conformity Assessment, has published national standards for laboratory biorisk management, but does not enforce them. [1] There is no evidence on the websites of the Ministry of Health, Ministry of Agriculture, Ministry of Defence, or the VERTIC database to suggest that there is an established agency responsible for the enforcement of biosecurity legislation and regulation. [2,3,4,5] Although Indonesia submitted Confidence Building Measures in 2015, access to the report (and the reports of previous years) is restricted, and it is unknown if it contains information on this

matter. [6]

[1] President of the Republic of Indonesia. Law No. 20 Year 2014. "Standardization and Conformity Assessment (Standarisasi dan Penilaian Kesesuaian)". [[https://www.bsn.go.id/uploads/download/UU-20\\_TAHUN\\_2014\\_TENTANG\\_SPK1.pdf](https://www.bsn.go.id/uploads/download/UU-20_TAHUN_2014_TENTANG_SPK1.pdf)]. Accessed 8 October 2020.

[2] Ministry of Health of the Republic of Indonesia. [<http://kemkes.go.id/>]. Accessed 8 September 2020.

[3] Ministry of Agriculture of the Republic of Indonesia. [<http://www.pertanian.go.id/index.php>]. Accessed 8 September 2020.

[4] Ministry of Defence of the Republic of Indonesia. [<https://www.kemhan.go.id/>]. Accessed 8 September 2020.

[5] VERTIC Database. [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/i/>]. Accessed 8 October 2020.

[6] Biological Weapons Convention (BWC) Electronic Confidence Building Measures Portal. "Indonesia". [<https://bwc-ecbm.unog.ch/state/indonesia>]. Accessed 8 September 2020.

### 1.3.1d

**Is there public evidence that shows that the country has taken action to consolidate its inventories of especially dangerous pathogens and toxins into a minimum number of facilities?**

Yes = 1 , No = 0

**Current Year Score: 0**

There is no public evidence that shows that the country has taken action to consolidate its inventories of especially dangerous pathogens and toxins into a minimum number of facilities. The Joint External Evaluation for Indonesia, conducted in November 2017, does not mention consolidation of inventories of especially dangerous pathogens and toxins into a minimum number of facilities, and has recommended that Indonesia "develop a continuously updated and monitored nationwide inventory of high consequence agents in storage" as one of its priority actions. [1] There is no relevant information on the websites of the Ministry of Health, Ministry of Defence, Ministry of Agriculture, Ministry of Research, National Institute of Health Research and Development (NIHRD), and the VERTIC database. [2, 3, 4, 5, 6, 7] Although Indonesia submitted Confidence Building Measures in 2015, access to the report (and the reports of previous years) is restricted, and it is unknown if it contains information on this matter. [8]

[1] World Health Organisation (WHO). 20-24 November 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Indonesia". [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2018.9/en/>]. Accessed 8 September 2020.

[2] Ministry of Health of the Republic of Indonesia. [<https://www.kemkes.go.id/>]. Accessed 8 September 2020.

[3] Ministry of Defence of the Republic of Indonesia. [<https://www.kemhan.go.id/>]. Accessed 8 September 2020.

[4] Ministry of Agriculture of the Republic of Indonesia. [<http://www.pertanian.go.id/>]. Accessed 8 September 2020.

[5] Ministry of Research, Technology, and Higher Education of the Republic of Indonesia. [<https://ristekdikti.go.id/>]. Accessed 8 September 2020.

[6] National Institute of Health Research and Development (NIHRD). [<https://www.litbang.kemkes.go.id/>]. Accessed 8 September 2020.

[7] VERTIC Database. "BWC Legislation Database". [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/i/>]. Accessed 8 October 2020.

[8] Biological Weapons Convention (BWC) Electronic Confidence Building Measures Portal. "Indonesia". [<https://bwc-ecbm.unog.ch/state/indonesia>]. Accessed 8 September 2020.

### 1.3.1e

**Is there public evidence of in-country capacity to conduct Polymerase Chain Reaction (PCR)–based diagnostic testing for anthrax and/or Ebola, which would preclude culturing a live pathogen?**

Yes = 1 , No = 0

**Current Year Score: 1**

There is publicly available evidence of in-country capacity to conduct Polymerase Chain Reaction (PCR)-based diagnostic testing for anthrax and Ebola. A scholarly publication by researchers at Hasanuddin University (Makassar, Indonesia) indicates that there is domestic capacity to PCR-test for anthrax. [1] The World Health Organisation (WHO) indicates that Indonesia has laboratory technicians who are skilled in PCR testing methods and can test for Ebola. [2]

[1] Kholilullah, Zainal Abidin et al. 2016. "Identification of Virulence of Bacillus anthracis from Soil by Multiplex PCR Technique in the South Sulawesi Province of Indonesia". American Journal of Infectious Diseases and Microbiology 4

[6] : 118-122. [<http://pubs.sciepub.com/ajidm/4/6/2/index.html>]. Accessed 8 September 2020.

[2] World Health Organisation (WHO). Bulletin. 2016. "Assessment of Ebola virus disease preparedness in the WHO South-East Asia Region". Bulletin of the World Health Organisation 94: 913-924. [<http://www.who.int/bulletin/volumes/94/12/16-174441/en/>]. Accessed 8 September 2020.

## 1.3.2 Biosecurity training and practices

### 1.3.2a

**Does the country require biosecurity training, using a standardized, required approach, such as through a common curriculum or a train-the-trainer program, for personnel working in facilities housing or working with especially dangerous pathogens, toxins, or biological materials with pandemic potential?**

Yes = 1 , No = 0

**Current Year Score: 0**

There is no evidence that Indonesia requires biosecurity training, using a standardized, required approach, such as through a common curriculum or a train-the-trainer program, for personnel working in facilities housing or working with especially dangerous pathogens, toxins, or biological materials with pandemic potential. Standardized biosecurity training is available, but there is no evidence that it is required. The Joint External Evaluation for Indonesia, conducted in November 2017, indicates that there exists an ongoing "train the trainers" programme in biosafety and biosecurity. [1] Indonesia's biosecurity training efforts have covered weapons of mass destruction, bioterrorism, the National Biorisk Management Program, and biosecurity for avian influenza laboratories. [2] There is no mention of a biosecurity training requirement on the websites of the Ministry of Health, Ministry of Defence, Ministry of Agriculture, Ministry of Research, National Institute of Health Research and Development, and the VERTIC database. [3, 4, 5, 6, 7, 8] Although Indonesia submitted Confidence Building Measures in 2015, access to the report (and the reports of previous years) is restricted, and it is unknown if it contains information on this matter. [9]

[1] World Health Organisation (WHO). 20-24 November 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Indonesia". [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2018.9/en/>]. Accessed 8 September 2020.

[2] Sasono, Pretty. 2012. "Engineering Control: Challenges in Maintaining a BSL-3". In Biosecurity Challenges of the Global Expansion of High-Containment Biological Laboratories: Summary of a Workshop. Washington, DC: National Academies Press. [<https://www.nap.edu/read/13315/chapter/9>]. Accessed 8 September 2020.

[3] Ministry of Health of the Republic of Indonesia. [<https://www.kemkes.go.id/>]. Accessed 8 September 2020.

[4] Ministry of Defence of the Republic of Indonesia. [<https://www.kemhan.go.id/>]. Accessed 8 September 2020.

- [5] Ministry of Agriculture of the Republic of Indonesia. [<http://www.pertanian.go.id/>]. Accessed 8 September 2020.
- [6] Ministry of Research, Technology, and Higher Education of the Republic of Indonesia. [<https://ristekdikti.go.id/>]. Accessed 8 September 2020.
- [7] National Institute of Health Research and Development (NIHRD). [<https://www.litbang.kemkes.go.id/>]. Accessed 8 September 2020.
- [8] VERTIC Database. [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/i/>]. Accessed 8 October 2020.
- [9] Biological Weapons Convention (BWC) Electronic Confidence Building Measures Portal. "Indonesia". [<https://bwc-ecbm.unog.ch/state/indonesia>]. Accessed 8 September 2020.

### 1.3.3 Personnel vetting: regulating access to sensitive locations

#### 1.3.3a

**Do regulations or licensing conditions specify that security and other personnel with access to especially dangerous pathogens, toxins, or biological materials with pandemic potential are subject to the following checks: drug testing, background checks, and psychological or mental fitness checks?**

Personnel are subject to all three of these checks = 3, Personnel are subject to two of these checks = 2, Personnel are subject to one of these checks = 1, Personnel are not subject to any of these checks = 0

**Current Year Score: 0**

There is no evidence of regulations in Indonesia or licensing conditions specifying that security and other personnel with access to especially dangerous pathogens, toxins, or biological materials with pandemic potential are subject to the following checks: drug testing, background checks, and psychological or mental fitness checks. The Joint External Evaluation of IHR Core Capacities of the Republic of Indonesia from November 2017 does not mention any drug testing, background checks, and psychological or mental fitness checks requirements for security and other personnel with access to especially dangerous pathogens, toxins, or biological materials with pandemic potential. [1] There is no relevant information on the websites of the Ministry of Health, Ministry of Defence, Ministry of Agriculture, Ministry of Research, National Institute of Health Research and Development (NIHRD), and the VERTIC database. [2, 3, 4, 5, 6, 7] Although Indonesia submitted Confidence Building Measures in 2015, access to the report (and the reports of previous years) is restricted, and it is unknown if it contains information on this matter. [8]

- [1] World Health Organisation (WHO). 20-24 November 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Indonesia". [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2018.9/en/>]. Accessed 8 September 2020.
- [2] Ministry of Health of the Republic of Indonesia. [<https://www.kemkes.go.id/>]. Accessed 8 September 2020.
- [3] Ministry of Defence of the Republic of Indonesia. [<https://www.kemhan.go.id/>]. Accessed 8 September 2020.
- [4] Ministry of Agriculture of the Republic of Indonesia. [<http://www.pertanian.go.id/>]. Accessed 8 September 2020.
- [5] Ministry of Research, Technology, and Higher Education of the Republic of Indonesia. [<https://ristekdikti.go.id/>]. Accessed 8 September 2020.
- [6] National Institute of Health Research and Development (NIHRD). [<https://www.litbang.kemkes.go.id/>]. Accessed 8 September 2020.
- [7] VERTIC Database. [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/i/>]. Accessed 8 October 2020.
- [8] Biological Weapons Convention (BWC) Electronic Confidence Building Measures Portal. "Indonesia". [<https://bwc-ecbm.unog.ch/state/indonesia>]. Accessed 8 September 2020.

## 1.3.4 Transportation security

### 1.3.4a

**Does the country have publicly available information on national regulations on the safe and secure transport of infectious substances (specifically including Categories A and B)?**

Yes = 1 , No = 0

**Current Year Score: 0**

There is no evidence that Indonesia has publicly available information on national regulations on the safe and secure transport of infectious substances (Categories A and B). The Joint External Evaluation of IHR Core Capacities of the Republic of Indonesia from November 2017 states that "correct packing for category B agents is in place with SOPs," but does not reference the relevant documents. [1] The Ministry of Transport's "National Air Safety Program" categorizes toxic and infectious substances as "Class 6 dangerous goods," but the regulations do not include guidelines pertaining to transporting toxic and infectious substances and do not mention the terms, Category A and Category B. [2] The regulations pertaining to "Cargo and Post Supply Chain Safety for Air Transport" indicate general security requirements for air cargo, but does not mention transport requirements that pertain specifically to Category A and B infectious substances. [3] There is no relevant information on the websites of the Ministry of Health, Ministry of Defence, Ministry of Agriculture, Ministry of Research, National Institute of Health Research and Development (NIHRD), and the VERTIC database. [4, 5, 6, 7, 8, 9] Although Indonesia submitted Confidence Building Measures in 2015, access to the report (and the reports of previous years) is restricted, and it is unknown if it contains information on this matter. [10]

[1] World Health Organisation (WHO). 20-24 November 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Indonesia". [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2018.9/en/>]. Accessed 8 September 2020.

[2] Ministry of Transportation of the Republic of Indonesia. Regulation No. 80 Year 2017. "National Air Safety Program (Program Keamanan Penerbangan Nasional)".

[[http://jdih.dephub.go.id/assets/uudocs/permen/2017/PM\\_80\\_TAHUN\\_2017.compressed\\_.pdf](http://jdih.dephub.go.id/assets/uudocs/permen/2017/PM_80_TAHUN_2017.compressed_.pdf)]. Accessed 8 September 2020.

[3] Ministry of Transportation of the Republic of Indonesia. Regulation No. 153 Year 2015. "Cargo and Post Supply Chain Safety for Air Transport (Pengamanan Kargo dan Pos Serta Rantai Pasok (Supply Chain) Kargo dan Pos yang Diangkut dengan Pesawat Udara)". [[http://jdih.dephub.go.id/assets/uudocs/permen/2015/PM\\_153\\_TAHUN\\_2015.pdf](http://jdih.dephub.go.id/assets/uudocs/permen/2015/PM_153_TAHUN_2015.pdf)]. Accessed 8 September 2020.

[4] Ministry of Health of the Republic of Indonesia. [<https://www.kemkes.go.id/>]. Accessed 8 September 2020.

[5] Ministry of Defence of the Republic of Indonesia. [<https://www.kemhan.go.id/>]. Accessed 8 September 2020.

[6] Ministry of Agriculture of the Republic of Indonesia. [<http://www.pertanian.go.id/>]. Accessed 8 September 2020.

[7] Ministry of Research, Technology, and Higher Education of the Republic of Indonesia. [<https://ristekdikti.go.id/>]. Accessed 8 September 2020.

[8] National Institute of Health Research and Development (NIHRD). [<https://www.litbang.kemkes.go.id/>]. Accessed 8 September 2020.

[9] VERTIC Database. [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/i/>]. Accessed 8 October 2020.

[10] Biological Weapons Convention (BWC) Electronic Confidence Building Measures Portal. "Indonesia". [<https://bwc-ecbm.unog.ch/state/indonesia>]. Accessed 8 September 2020.

## 1.3.5 Cross-border transfer and end-user screening

### 1.3.5a

**Is there legislation and/or regulations in place to oversee the cross-border transfer and end-user screening of especially dangerous pathogens, toxins, and pathogens with pandemic potential?**

Yes = 1 , No = 0

**Current Year Score: 1**

Indonesia has a legislation in place to oversee the cross-border transfer and end-user screening of especially dangerous pathogens, toxins, and pathogens with pandemic potential. Ministry of Health Regulation No. 657 Year 2009 on the Sending and Use of Clinical Specimens, Biological Materials, and Payload Information covers standard procedures and requirements for national and international transfers of biological material and specimens from one lab/facility/location to another for specific reasons related to public health and/or research. This regulation mentions the risks and benefits of research and specimen sharing for new emerging and re-emerging, as well as specimens of public interest or related to a public health emergency of international concern. The regulation stipulates the required use of a Material Transfer Agreement for dangerous materials and materials with pandemic potential (Chapter 3, Article 4, Paragraph 4). This requires authorization from the Head of the National Institute for Research and Development. Additionally, the recipient of such material must show proof that its health service facility or institution is of a higher competence and authority than the sender. (Chapter 3, Article 5, Paragraph 5). [1] The Material Transfer Agreement must at least include the identity of both sender and receiver, the clinical specimen or biological material, its intended use, the authorization for those handling the materials, tracking information, and agreed responsibilities. Deviations from relevant regulations are punishable under the law.

[1] Ministry of Health of the Republic of Indonesia. Regulation No. 657 Year 2009. "Sending and Utilizing Clinical Specimens, Biological Materials and its Cargo Information (Pengiriman dan Penggunaan Spesimen Klinik, Materi Biologik dan Muatan Informasinya)". [<https://persi.or.id/wp-content/uploads/2020/11/pmk6572009.pdf>]. Accessed 01 June 2021.

## 1.4 BIOSAFETY

### 1.4.1 Whole-of-government biosafety systems

#### 1.4.1a

**Does the country have in place national biosafety legislation and/or regulations?**

Yes = 1 , No = 0

**Current Year Score: 0**

There is insufficient evidence that Indonesia has in place a national biosafety legislation or regulations. According to the Joint External Evaluation (JEE) for Indonesia from November 2017, the country "has come a long way in terms of structured and strategic implementation of biosafety and biosecurity." The JEE notes that although the whole-of-government biosafety and biosecurity system has a legislative foundation, national guidelines for biosafety and biosecurity still need to be finalized and enforced. [1] The JEE references Health Ministerial Decree No. 835 Year 2009, which specifies biosafety and biosecurity guidelines for microbiology and biomedical laboratories, but the full text of the decree is not available online. [1, 2] Ministry of Health Regulation No. 658 Year 2009 on Laboratory Network for Diagnosis of New-Emerging and Re-Emerging Infectious Diseases specifies guidelines for laboratory operation practices. [3] Ministry of Health Decision No. 364 Year 2003 requires that all health-related laboratories (clinics and public health, public and private) be accredited and follow workplace health and safety standards. [4] There is also Agriculture Ministry Regulation No. 44 Year 2007 regarding a Good Veterinary Laboratory Practice Guide that covers handling, sending and reporting for biological samples. This guide also refers to WHO

Laboratory Biosafety Manual 3rd edition for biosafety and biosecurity requirements as appropriate for different Laboratory BSL levels. [5] There is no further evidence of an established national biosafety legislation and/or regulations on the websites of the Ministry of Health, the Ministry of Agriculture, the National Institute for Health Research and Development, the Ministry of Research and Technology, and the VERTIC database. [6,7,8,9,10]

- [1] World Health Organisation (WHO). 20-24 November 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Indonesia". [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2018.9/en/>]. Accessed 25 November 2018.
- [2] Ministry of Health of the Republic of Indonesia. Decree No. 835/MENKES/SK/IX/2009. "Guidelines on Biosafety and Biosecurity for Microbiology and Biomedical Laboratories (Pedoman Keamanan Laboratorium Mikrobiologi dan Biomedis)". [[https://peraturan.bkpm.go.id/jdih/userfiles/batang/KEPMENKES\\_1244\\_1994.pdf](https://peraturan.bkpm.go.id/jdih/userfiles/batang/KEPMENKES_1244_1994.pdf)]. Accessed 20 October 2020.
- [3] Ministry of Health of the Republic of Indonesia. Regulation No. 658/MENKES/PER/VIII/2009. "On Networked Laboratories Diagnosis New-Emerging and Re-Emerging Infectious Diseases (Jejaring Laboratorium Diagnosis Penyakit Infeksi New Emerging Dan Re-Emerging)". [<http://manajemenrumahsakit.net/wp-content/uploads/2012/08/PMK-No.-658-ttg-Jejaring-Laboratorium-Diagnosis-Penyakit-Infeksi-New-Emerging-Dan-Re-Emerging.pdf>]. Accessed 30 December 2018.
- [4] Ministry of Health of the Republic of Indonesia. Decision No. 364/MENKES/SK/III/2003. "Health Laboratory (Laboratorium Kesehatan)". [<http://dinkes.surabaya.go.id/portal/files/kepmenkes/Kepmenkes%20364-MENKES-SK-III-2003-Laboratorium%20Kesehatan.pdf>]. Accessed 30 December 2018.
- [5] Biological Weapons Convention (BWC) Electronic Confidence Building Measures Portal. "Indonesia". [<https://bwc-ecbm.unog.ch/state/indonesia>]. Accessed 5 May 2019.
- [6] Ministry of Health of the Republic of Indonesia. [<https://www.kemkes.go.id/>]. Accessed 8 September 2020.
- [7] Ministry of Agriculture of the Republic of Indonesia. [<http://www.pertanian.go.id/>]. Accessed 8 September 2020.
- [8] National Institute of Health Research and Development (NIHRD). [<https://www.litbang.kemkes.go.id/>]. Accessed 8 September 2020.
- [9] Ministry of Research and Technology of the Republic of Indonesia. [<https://www.ristekbrin.go.id/>]. Accessed 20 October 2020.
- [10] VERTIC Database. [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/i/>]. Accessed 8 October 2020.

#### 1.4.1b

**Is there an established agency responsible for the enforcement of biosafety legislation and regulations?**

Yes = 1, No = 0

**Current Year Score: 0**

There is insufficient evidence that Indonesia has an established agency responsible for the enforcement of biosafety legislation and regulations. Several regulations relevant to biosafety in Indonesia suggest that the Ministry of Health is responsible for the enforcement of biosafety legislation and regulations, but it is not stated explicitly. [1, 2, 3] The National Standardization Body (Badan Standar Nasional), a non-ministry government agency established through Law No. 24 Year 2014 on Standardization and Conformity Assessment, has published national standards for laboratory biorisk management, but does not enforce them. [4] There is no evidence on the websites of the Ministry of Health, Ministry of Agriculture, Ministry of Defence, or the VERTIC database to suggest that there is an established agency responsible for the enforcement of biosafety legislation and regulation. [5,6,7,8] Although Indonesia submitted Confidence Building Measures in 2015, access to the report (and the reports of previous years) is restricted, and it is unknown if it contains information on this matter. [9]

- [1] Ministry of Health of the Republic of Indonesia. Decree No. 835/MENKES/SK/IX/2009. "Guidelines on Biosafety and Biosecurity for Microbiology and Biomedical Laboratories (Pedoman Keamanan Laboratorium Mikrobiologi dan Biomedis)". [[https://peraturan.bkpm.go.id/jdih/userfiles/batang/KEPMENKES\\_1244\\_1994.pdf](https://peraturan.bkpm.go.id/jdih/userfiles/batang/KEPMENKES_1244_1994.pdf)]. Accessed 20 October 2020.

- [2] Ministry of Health of the Republic of Indonesia. Regulation No. 658 Year 2009. "On Networked Laboratories Diagnosis New-Emerging and Re-Emerging Infectious Diseases (Jejaring Laboratorium Diagnosis Penyakit Infeksi New Emerging Dan Re-Emerging)". Accessed 8 September 2020. [<http://manajemenrumahsakit.net/wp-content/uploads/2012/08/PMK-No.-658-ttg-Jejaring-Laboratorium-Diagnosis-Penyakit-Infeksi-New-Emerging-Dan-Re-Emerging.pdf>]. Accessed 8 September 2020.
- [3] Ministry of Health of the Republic of Indonesia. Decree No. 364 Year 2003. "Health Laboratory (Laboratorium Kesehatan)". [<https://pdfslide.net/documents/kepmenkes-364-menkes-sk-iii-2003-laboratorium-kesehatan.html>]. Accessed 8 September 2020.
- [4] President of the Republic of Indonesia. Law No. 20 Year 2014. "Standardization and Conformity Assessment (Standardisasi dan Penilaian Kesesuaian)". [[https://www.bsn.go.id/uploads/download/UU-20\\_TAHUN\\_2014\\_TENTANG\\_SPK1.pdf](https://www.bsn.go.id/uploads/download/UU-20_TAHUN_2014_TENTANG_SPK1.pdf)]. Accessed 20 October 2020.
- [5] Ministry of Health of the Republic of Indonesia. [<http://kemkes.go.id/>]. Accessed 8 September 2020.
- [6] Ministry of Agriculture of the Republic of Indonesia. [<http://www.pertanian.go.id/index.php>]. Accessed 8 September 2020.
- [7] Ministry of Defence of the Republic of Indonesia. [<https://www.kemhan.go.id/>]. Accessed 8 September 2020.
- [8] VERTIC Database. [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/i/>]. Accessed 8 October 2020.
- [9] Biological Weapons Convention (BWC) Electronic Confidence Building Measures Portal. "Indonesia". [<https://bwc-ecbm.unog.ch/state/indonesia>]. Accessed 8 September 2020.

## 1.4.2 Biosafety training and practices

### 1.4.2a

**Does the country require biosafety training, using a standardized, required approach, such as through a common curriculum or a train-the-trainer program, for personnel working in facilities housing or working with especially dangerous pathogens, toxins, or biological materials with pandemic potential?**

Yes = 1, No = 0

**Current Year Score: 0**

There is no evidence that Indonesia requires biosafety training, using a standardized, required approach, such as through a common curriculum or a train-the-trainer program, for personnel working in facilities housing or working with especially dangerous pathogens, toxins, or biological materials with pandemic potential. Standardized biosafety training is available in the country, but there is no evidence that it is required. The Joint External Evaluation for Indonesia, conducted in November 2017, indicates that there exists an ongoing "train the trainers" programme in biosafety and biosecurity. [1] Indonesia's National Institute of Health Research and Development (NIHRD) has created an "Instructor's Guide for Biosafety Training" based on World Health Organisation (WHO) guidelines. [2] There is no mention of a biosafety training requirement on the websites of the Ministry of Health, Ministry of Defence, Ministry of Agriculture, Ministry of Research, National Institute of Health Research and Development, or the VERTIC database. [3, 4, 5, 6, 7, 8] Although Indonesia submitted Confidence Building Measures in 2015, access to the report (and the reports of previous years) is restricted, and it is unknown if it contains information on this matter. [9]

- [1] World Health Organisation (WHO). 20-24 November 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Indonesia". [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2018.9/en/>]. Accessed 8 September 2020.
- [2] Sasono, Pretty. 2012. "Engineering Control: Challenges in Maintaining a BSL-3". In *Biosecurity Challenges of the Global Expansion of High-Containment Biological Laboratories: Summary of a Workshop*. Washington, DC: National Academies Press. [<https://www.nap.edu/read/13315/chapter/9>]. Accessed 8 September 2020.
- [3] Ministry of Health of the Republic of Indonesia. [<https://www.kemkes.go.id/>]. Accessed 8 September 2020.



- [4] Ministry of Defence of the Republic of Indonesia. [<https://www.kemhan.go.id/>]. Accessed 8 September 2020.
- [5] Ministry of Agriculture of the Republic of Indonesia. [<http://www.pertanian.go.id/>]. Accessed 8 September 2020.
- [6] Ministry of Research, Technology, and Higher Education of the Republic of Indonesia. [<https://ristekdikti.go.id/>]. Accessed 8 September 2020.
- [7] National Institute of Health Research and Development (NIHRD). [<https://www.litbang.kemkes.go.id/>]. Accessed 8 September 2020.
- [8] VERTIC Database. [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/i/>]. Accessed 8 October 2020.
- [9] Biological Weapons Convention (BWC) Electronic Confidence Building Measures Portal. "Indonesia". [<https://bwc-ecbm.unog.ch/state/indonesia>]. Accessed 8 September 2020.

## 1.5 DUAL-USE RESEARCH AND CULTURE OF RESPONSIBLE SCIENCE

### 1.5.1 Oversight of research with especially dangerous pathogens, toxins, pathogens with pandemic potential and/or other dual-use research

#### 1.5.1a

**Is there publicly available evidence that the country has conducted an assessment to determine whether ongoing research is occurring on especially dangerous pathogens, toxins, pathogens with pandemic potential and/or other dual-use research?**

Yes = 1 , No = 0

**Current Year Score: 0**

There is no publicly available evidence that Indonesia has conducted an assessment to determine whether ongoing research is occurring on especially dangerous pathogens, toxins, pathogens with pandemic potential, and/or other dual use research. The Joint External Evaluation for Indonesia, conducted November 2017, does not mention any assessments pertaining to ongoing research dangerous pathogens, toxins, pathogens with pandemic potential, and/or other dual use research. [1] No information on this topic was found on the websites of the Ministry of Health, Ministry of Defence, Ministry of Agriculture, Ministry of Research, National Institute of Health Research and Development, or the VERTIC database. [2,3,4,5,6,7] Although Indonesia submitted Confidence Building Measures in 2015, access to the report (and the reports of previous years) is restricted, and it is unknown if it contains information on this matter. [8]

- [1] World Health Organisation (WHO). 20-24 November 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Indonesia". [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2018.9/en/>]. Accessed 8 September 2020.
- [2] Ministry of Health of the Republic of Indonesia. [<https://www.kemkes.go.id/>]. Accessed 8 September 2020.
- [3] Ministry of Defence of the Republic of Indonesia. [<https://www.kemhan.go.id/>]. Accessed 8 September 2020.
- [4] Ministry of Agriculture of the Republic of Indonesia. [<http://www.pertanian.go.id/>]. Accessed 8 September 2020.
- [5] Ministry of Research, Technology, and Higher Education of the Republic of Indonesia. [<https://ristekdikti.go.id/>]. Accessed 8 September 2020.
- [6] National Institute of Health Research and Development (NIHRD). [<https://www.litbang.kemkes.go.id/>]. Accessed 8 September 2020.
- [7] VERTIC Database. [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/i/>]. Accessed 8 October 2020.
- [8] Biological Weapons Convention (BWC) Electronic Confidence Building Measures Portal. "Indonesia". [<https://bwc-ecbm.unog.ch/state/indonesia>]. Accessed 8 September 2020.

### 1.5.1b

**Is there legislation and/or regulation requiring oversight of research with especially dangerous pathogens, toxins, pathogens with pandemic potential and/or other dual-use research?**

Yes = 1, No = 0

**Current Year Score: 0**

There is no evidence of a national policy in Indonesia requiring oversight of dual use research, such as research with especially dangerous pathogens, toxins, and/or pathogens with pandemic potential. Indonesia's regulations that relate to chemical substances and weapons (Government of Indonesia Law No. 9 Year 2008 and Government of Indonesia Regulation No. 19 Year 2017) do not mention oversight of dual use research. [1, 2] The Ministry of Trade's Regulation No. 75 Year 2014, which regulates the procurement, distribution, and supervision of dangerous materials does not mention oversight of dual use research. [3] There is no mention of oversight of dual use research in the Joint External Evaluation for Indonesia from November 2017 or on the websites of the Ministry of Health, Ministry of Defence, Ministry of Agriculture, Ministry of Research, National Institute of Health Research and Development, and the VERTIC database. [4, 5, 6, 7, 8, 9, 10] The Indonesian Academy of Sciences has published a Code of Conduct on Biosecurity, which includes suggested guidelines regarding dual use research. The Indonesian Academy of Sciences does not have regulatory authority and is not able to require oversight of dual use research. [11] Although Indonesia submitted Confidence Building Measures in 2015, access to the report (and the reports of previous years) is restricted, and it is unknown if it contains information on this matter. [12]

[1] President of the Republic of Indonesia. Law No. 9 Year 2008. "Use of Chemical Substances and Prevention of Use of Chemical Substances as Chemical Weapons".

[[http://www.vertic.org/media/National%20Legislation/Indonesia/ID\\_CWC\\_Law.pdf](http://www.vertic.org/media/National%20Legislation/Indonesia/ID_CWC_Law.pdf)]. Accessed 1 January 2019.

[2] President of the Republic of Indonesia. Regulation No. 19 Year 2017. "National Chemical Weapons Authority (Otoritas Nasional Senjata Kimia)". [<http://sipuu.setkab.go.id/PUUdoc/175143/Perpres%20No%2019%20Thn%202017.pdf>]. Accessed 8 September 2020.

[3] Ministry of Trade of the Republic of Indonesia. Regulation No. 75 Year 2014. "Procurement, Distribution and Supervision of Dangerous Materials (Perubahan Kedua atas Peraturan Menteri Perdagangan Nomor 44 Tahun 2009 tentang Pengadaan, Distribusi dan Pengawasan Bahan Berbahaya).

[[http://www.scisi.co.id/scisi/repository/upload/mod\\_commodity\\_files/1425441111picfc24e39ffd5.pdf](http://www.scisi.co.id/scisi/repository/upload/mod_commodity_files/1425441111picfc24e39ffd5.pdf)]. Accessed 8 September 2020.

[4] World Health Organisation (WHO). 20-24 November 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Indonesia". [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2018.9/en/>]. Accessed 8 September 2020.

[5] Ministry of Health of the Republic of Indonesia. [<https://www.kemkes.go.id/>]. Accessed 8 September 2020.

[6] Ministry of Defence of the Republic of Indonesia. [<https://www.kemhan.go.id/>]. Accessed 8 September 2020.

[7] Ministry of Agriculture of the Republic of Indonesia. [<http://www.pertanian.go.id/>]. Accessed 8 September 2020.

[8] Ministry of Research, Technology, and Higher Education of the Republic of Indonesia. [<https://ristekdikti.go.id/>]. Accessed 8 September 2020.

[9] National Institute of Health Research and Development (NIHRD). [<https://www.litbang.kemkes.go.id/>]. Accessed 8 September 2020.

[10] VERTIC Database. [<http://www.vertic.org/pages/homepage/programmes/national-implementation-measures/biological-weapons-and-materials/bwc-legislation-database/i.php>]. Accessed 8 September 2020.

[11] Indonesian Academy of Sciences. 2014. "Code of Conduct on Biosecurity (Pedoman Perilaku untuk Keamanan Hayati)". [<https://aipi.or.id/frontend/book/read/4132774359513d3d>]. Accessed 8 September 2020.

[12] Biological Weapons Convention (BWC) Electronic Confidence Building Measures Portal. "Indonesia". [<https://bwc-ecbm.unog.ch/state/indonesia>]. Accessed 8 September 2020.

### 1.5.1c

**Is there an agency responsible for oversight of research with especially dangerous pathogens, toxins, pathogens with pandemic potential and/or other dual-use research?**

Yes = 1 , No = 0

**Current Year Score: 0**

There is no evidence of an agency responsible for oversight of dual use research in Indonesia. No information on this topic was found on the websites of the Ministry of Health, Ministry of Defence, Ministry of Agriculture, Ministry of Research, National Institute of Health Research and Development, and VERTIC database. [1,2,3,4,5,6] The Indonesian Academy of Sciences has published a Code of Conduct on Biosecurity, which includes suggested guidelines regarding dual use research, but does not mention any regulatory oversight. [7] The National Chemical Weapons Authority, established by Presidential Regulation No. 19 of 2017, regulates the management and development of chemical weapons; it does not cover dual-use research of biological pathogens. [8] Although Indonesia submitted Confidence Building Measures in 2015, access to the report (and the reports of previous years) is restricted, and it is unknown if it contains information on this matter. [9]

[1] Ministry of Health of the Republic of Indonesia. [<https://www.kemkes.go.id/>]. Accessed 8 September 2020.

[2] Ministry of Defence of the Republic of Indonesia. [<https://www.kemhan.go.id/>]. Accessed 8 September 2020.

[3] Ministry of Agriculture of the Republic of Indonesia. [<http://www.pertanian.go.id/>]. Accessed 8 September 2020.

[4] Ministry of Research, Technology, and Higher Education of the Republic of Indonesia. [<https://ristekdikti.go.id/>]. Accessed 8 September 2020.

[5] National Institute of Health Research and Development. [[www.litbang.kemkes.go.id](http://www.litbang.kemkes.go.id/)]. Accessed 8 September 2020.

[6] VERTIC Database. [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/i/>]. Accessed 8 October 2020.

[7] Indonesian Academy of Sciences. 2014. "Code of Conduct on Biosecurity (Pedoman Perilaku untuk Keamanan Hayati)". [<https://aiapi.or.id/frontend/book/read/566a6c614f513d3d>]. Accessed 8 September 2020.

[8] President of the Republic of Indonesia. 2017. Presidential Regulation No. 19 of 2017. "National Chemical Weapons Authority (Otoritas Nasional Senjata Kimia)".

[<http://sipuu.setkab.go.id/PUUdoc/175143/Perpres%20No%2019%20Thn%202017.pdf>]. Accessed 8 September 2020.

[9] Biological Weapons Convention (BWC) Electronic Confidence Building Measures Portal. "Indonesia". [<https://bwc-ecbm.unog.ch/state/indonesia>]. Accessed 8 September 2020.

## 1.5.2 Screening guidance for providers of genetic material

### 1.5.2a

**Is there legislation and/or regulation requiring the screening of synthesized DNA (deoxyribonucleic acid) against lists of known pathogens and toxins before it is sold?**

Yes = 1 , No = 0

**Current Year Score: 0**

While Indonesia has national legislation that requires the oversight of synthesized DNA before it is sold, there is no evidence of requiring screening of synthesized DNA against lists of known pathogens and toxins. The Ministry of Health's Regulation No. 1010 Year 2008 governs the registration of drugs in Indonesia. It specifically mentions the inclusion of "products derived from recombinant DNA technology" as within the types of drugs and drug components subject to the regulations and Ministry of Health oversight. However, there is no mention of screening involving a code reader. [1]

Presidential Regulation No. 21 Year 2005 on Biosafety of Genetically Engineered Products state that genetically engineered

products released or distributed in Indonesia must meet requirements for environmental, food and/or feed safety according the relevant government body, must have had a technical evaluation performed, and requires authorization from the head of the ministry or non-ministry department prior to usage and distribution. However, there is little detail on the required assessments conducted for the technical evaluation, and no evidence that the use of DNA screening using a code reader is required. [2]

There is no evidence on the websites of the Ministry of Transportation, Ministry of Health, Ministry of Defence, Ministry of Agriculture, Ministry of Research, National Institute of Health Research and Development, and VERTIC database that synthesized DNA are subject to screening involving a code reader as part of their approval process prior to sale. [3, 4, 5, 6, 7, 8,9] Although Indonesia submitted Confidence Building Measures in 2015, access to the report (and the reports of previous years) is restricted, and it is unknown if it contains information on this matter. [10]

- [1] Ministry of Health of the Republic of Indonesia. Regulation No. 1010 Year 2008. "Drug Registration (Registrasi Obat)". [<http://jdih.pom.go.id/showpdf.php?u=8bDh1%2BVknJicrXQ5tSypitYV2KjE1KDkjdqiHWEcS4%3D>]. Accessed 8 October 2020.
- [2] President of the Republic of Indonesia. Regulation No. 21 Year 2005. "Biosafety of Genetically Engineered Products (Keamanan Hayati Produk Rekayasa Genetik)". [<https://jdih.kemken.go.id/fulltext/2005/21TAHUN2005PP.htm>]. Accessed 8 September 2020.
- [3] Ministry of Transportation of the Republic of Indonesia. [<http://www.dephub.go.id/>]. 8 October 2020.
- [4] Ministry of Health of the Republic of Indonesia. [<http://www.kemkes.go.id/>]. Accessed 8 October 2020.
- [5] Ministry of Defence of the Republic of Indonesia. [<https://www.kemhan.go.id/>]. Accessed 8 October 2020.
- [6] Ministry of Agriculture of the Republic of Indonesia. [<http://www.pertanian.go.id/>]. Accessed 8 October 2020.
- [7] Ministry of Research, Technology, and Higher Education of the Republic of Indonesia. [<https://ristekdikti.go.id/>]. Accessed 8 October 2020.
- [8] National Institute of Health Research and Development. [[www.litbang.kemkes.go.id](http://www.litbang.kemkes.go.id)]. Accessed 8 October 2020.
- [9] VERTIC Database. [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/i/>]. Accessed 8 October 2020.
- [10] Biological Weapons Convention (BWC) Electronic Confidence Building Measures Portal. "Indonesia". [<https://bwc-ecbm.unog.ch/state/indonesia>]. 8 October 2020.

## 1.6 IMMUNIZATION

### 1.6.1 Vaccination rates

#### 1.6.1a

##### Immunization rate (measles/MCV2)

Immunization rate (measles/MCV2), 95% or greater = 2, 80-94.9% = 1, Less than 80%, or no data = 0

Current Year Score: 0

2019

World Health Organization

#### 1.6.1b

Are official foot-and-mouth disease (FMD) vaccination figures for livestock publicly available through the OIE database?

Yes = 1, No = 0

Current Year Score: 1

2020

OIE WAHIS database

## Category 2: Early detection and reporting for epidemics of potential international concern

### 2.1 LABORATORY SYSTEMS STRENGTH AND QUALITY

#### 2.1.1 Laboratory testing for detection of priority diseases

##### 2.1.1a

**Does the national laboratory system have the capacity to conduct diagnostic tests for at least 5 of the 10 WHO-defined core tests?**

Evidence they can conduct 5 of the 10 core tests and these tests are named = 2, Evidence they can conduct 5 of the 10 core tests and the tests are not named = 1, No evidence they can conduct 5 of the 10 core tests = 0

Current Year Score: 1

The Indonesian national laboratory system has the capacity to conduct diagnostic tests for at least five of the 10 WHO-defined core tests although the specific tests are not mentioned. The Joint External Evaluation (JEE) for Indonesia from November 2017 notes that Indonesia has 1,205 public health laboratories as well as 13,000 laboratories at the community health clinic level (puskesmas) that can diagnose the most common diseases, e.g. HIV, and malaria. Currently, 70% of these laboratories can also diagnose tuberculosis. Indonesia's human regional referral laboratories can also diagnose influenza and typhoid. The JEE scored Indonesia as a 4 on question D.1.1 (laboratory testing for detection of priority diseases), which indicates that the country's national laboratory system can conduct at least five of the ten core tests, but does not specify which tests. The JEE specifically mentions that "diagnostic testing is available for 23 diseases in peripheral reference laboratories and further capacity is available in the central referral laboratory, well beyond the required ten diseases stipulated by IHR." [1] The National Institute of Health Research and Development (NIHRD) website indicates that the NIHRD can conduct the following WHO-defined core tests: polymerase chain reaction (PCR) testing for Influenza virus (flu); virus culture for poliovirus (polio); and serology for HIV. [2] There is no additional relevant information about national capacity to conduct WHO-defined core test on the Ministry of Health and NIHRD websites. [3, 4]

[1] World Health Organisation (WHO). 20-24 November 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Indonesia". [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2018.9/en/>]. Accessed 8 September 2020.

[2] National Institute of Health Research and Development. "Laboratorium Virologi".

[<http://www.pusat1.litbang.kemkes.go.id/index.php/laboratorium/jenis-lab/lab-virologi>]. Accessed 8 October 2020.

[3] Ministry of Health of the Republic of Indonesia. [<http://www.kemkes.go.id>]. Accessed 8 October 2020.

[4] National Institute of Health Research and Development. [[www.litbang.kemkes.go.id](http://www.litbang.kemkes.go.id)]. Accessed 8 September 2020.

### 2.1.1b

**Is there a national plan, strategy or similar document for conducting testing during a public health emergency, which includes considerations for testing for novel pathogens, scaling capacity, and defining goals for testing?**

Yes, there is evidence of a plan, and it includes considerations for testing for novel pathogens, scaling capacity, and defining goals for testing = 2, Yes, there is evidence of a plan, but there is insufficient evidence that it includes considerations for testing for novel pathogens, scaling capacity, and defining goals for testing = 1, No evidence of a plan = 0

**Current Year Score: 1**

There is evidence that Indonesia has a national plan, strategy or similar document for conducting testing during a public health emergency, but there is insufficient evidence that it includes considerations for testing for novel pathogens, scaling capacity, and defining goals for testing.

Indonesia has a COVID-19 specific testing strategy which includes evidence of a testing goal and scaling capacity. [1] For COVID-19 specifically, Ministry of Health Decree No. HK.01.07/MENKES/214/2020 on Coronavirus Disease 2019 (COVID-19) Laboratory Testing Network, and the Ministry of Health Guide for Mitigating and Managing Coronavirus Disease indicates that Indonesia has a disease-specific plan for testing, but does not include specific testing goals or an indication of testing beyond routine capacity [1, 2]. As of 17 June 2020 the COVID-19 Management Accelerated Task Force has expanded the government's laboratory testing network for COVID-19 samples to 139 laboratories, with a Presidential Instruction to increase daily sample testing from 10,000 to 20,000. [3]

Indonesia also has specific disease plans for emerging and re-emerging infectious diseases, such as Legionellosis, Monkeypox, Meningokokus, Leptospirosis, MERS, and Ebola but these plans do not include specific considerations for scaling capacity during a public health emergency, defining goals for testing, or testing novel pathogens. [4] Indonesia's Ministry of Health Regulation No. 1501 on Types of Infectious Diseases with Pandemic Potential and Efforts outlines specific testing procedures for 17 already-known diseases, but does not mention scaling capacity during emergencies. [5] Ministry of Health Regulation No. 658 Year 2009 on Laboratory Network for the Diagnosis of New-Emerging and Re-Emerging Infectious Diseases outlines biosecurity, biosafety, and personnel requirements for testing new-emerging and re-emerging infectious diseases but does not include a plan for scaling or novel pathogens. [6]

However, there is insufficient evidence of an overarching plan for conducting testing during a public health emergency, which includes considerations for testing for novel pathogens. There is insufficient evidence on the websites of the Ministry of Health, the Ministry of Agriculture, or the National Institute for Health Research and Development to indicate a national plan that includes these considerations. [7, 8, 9]

[1] Ministry of Health of the Republic of Indonesia. "Mitigating and Managing Coronavirus Disease (COVID-19) Guide (Pedoman Pencegahan dan Pengendalian Coronavirus Disease (COVID-19)). [<https://covid19.kemkes.go.id/protokol-covid-19/kmk-no-hk-01-07-menkes-413-2020-ttg-pedoman-pencegahan-dan-pengendalian-covid-19#.X1fEIXKhPY>]. Accessed 8 September 2020.

[2] Health Ministerial Decree of the Republic of Indonesia No. HK.01.07/MENKES/182/2020. "Coronavirus Disease (COVID-19) Laboratory Testing Network (Jejaring Laboratorium Pemeriksaan Coronavirus Disease (COVID-19)". [[http://hukor.kemkes.go.id/uploads/produk\\_hukum/KMK\\_No\\_\\_HK\\_01\\_07-MENKES-182-2020\\_ttg\\_Jejaring\\_Laboratorium\\_Pemeriksaan\\_COVID-19.pdf](http://hukor.kemkes.go.id/uploads/produk_hukum/KMK_No__HK_01_07-MENKES-182-2020_ttg_Jejaring_Laboratorium_Pemeriksaan_COVID-19.pdf)]. Accessed 8 October 2020.

[3] Ministry of Health of the Republic of Indonesia. "This is the Government's Strategy to Reach the Target of 20,000 Specimen Tests Per Day (Ini Strategi Pemerintah Capai Target Pemeriksaan 20,000 Spesimen Per Hari)". [<https://www.kemkes.go.id/article/view/20061700001/ini-strategi-pemerintah-capai-target-pemeriksaan-20-000-spesimen-per-hari.html>]. Accessed 8 October 2020.

[4] Ministry of Health of the Republic of Indonesia. "Emerging Infections (Infeksi Emerging)".

[<https://covid19.kemkes.go.id/downloads/#.X4HdedBKhPY>]. Accessed 8 October 2020.

[5] Ministry of Health of the Republic of Indonesia. "Types of Infectious Diseases with Pandemic Potential and Management Efforts (Jenis Penyakit Yang Dapat Menimbulkan Wabah dan Upaya Penanggulangannya)".

[[https://infeksiemerging.kemkes.go.id/download/PERMENKES\\_1501\\_2010\\_JENIS\\_PENYAKIT\\_MENULAR\\_POTENSIAL\\_WABAH\\_DAN\\_UPAYA\\_PENANGGULANGAN.pdf](https://infeksiemerging.kemkes.go.id/download/PERMENKES_1501_2010_JENIS_PENYAKIT_MENULAR_POTENSIAL_WABAH_DAN_UPAYA_PENANGGULANGAN.pdf)]. Accessed 8 September 2020.

[6] Ministry of Health of the Republic of Indonesia. Disease Management and Environmental Health Program Action Plan Year 2015-2019 (Rencana Aksi Program Pengendalian Penyakit dan Penyehatan Lingkungan Tahun 2015-2019)".

[<https://www.kemkes.go.id/resources/download/RAP%20Unit%20Utama%202015-2019/5.%20Ditjen%20P2P.pdf>]. Accessed 8 September 2020.

[7] Ministry of Health of the Republic of Indonesia. [<http://www.kemkes.go.id/>]. Accessed 8 October 2020.

[8] Ministry of Agriculture of the Republic of Indonesia. [<http://www.pertanian.go.id/>]. Accessed 8 October 2020.

[9] National Institute of Health Research and Development. [[www.litbang.kemkes.go.id](http://www.litbang.kemkes.go.id/)]. Accessed 8 October 2020.

## 2.1.2 Laboratory quality systems

### 2.1.2a

**Is there a national laboratory that serves as a reference facility which is accredited (e.g., International Organization for Standardization [ISO] 15189:2003, U.S. Clinical Laboratory Improvement Amendments [CLIA])?**

Yes = 1 , No = 0

**Current Year Score: 1**

The national laboratory that serves as a reference facility in Indonesia is accredited. The Joint External Evaluation for Indonesia from November 2017 states that National Institute for Health Research and Development "(Balitbangkes) is internationally accredited by WHO and ISO 15189 and 17025." [1] ISO 15189 is the accreditation given for meeting requirements for quality and competence in medical laboratories. [2] ISO 17025 is the accreditation given for meeting requirements for quality and competence in testing and calibration laboratories. [3]

[1] World Health Organisation (WHO). 20-24 November 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Indonesia". [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2018.9/en/>]. 8 September 2020.

[2] International Organisation for Standardisation (ISO). "ISO 15189:2012 Medical laboratories -- Requirements for quality and competence". [<https://www.iso.org/standard/56115.html>]. 8 September 2020.

[3] International Organisation for Standardisation (ISO). "ISO/IEC 17025:2005 General requirements for the competence of testing and calibration laboratories". [<https://www.iso.org/standard/39883.html>]. Accessed 8 September 2020.

### 2.1.2b

**Is there a national laboratory that serves as a reference facility which is subject to external quality assurance review?**

Yes = 1 , No = 0

**Current Year Score: 1**

The national laboratory in Indonesia that serves as a reference facility is subject to external quality assurance review. The Joint External Evaluation (JEE) for Indonesia from November 2017 indicates that the National Institute of Health Research and Development (NIHRD) is the country's main reference laboratory. [1] The Ministry of Health's Decree No. HK.02.02/MENKES/400/2016 requires that all laboratories undergo external quality assurance (EQA) and that the costs be met by the laboratories themselves. [1, 2] Published articles and reports indicate that the NIHRD regularly carries out

external quality assessments in its various laboratories. [3, 4]

[1] World Health Organisation (WHO). 20-24 November 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Indonesia". [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2018.9/en/>]. Accessed 8 September 2020.

[2] Ministry of Health of the Republic of Indonesia. Decree HK.02.02/MENKES/400/2016. "Laboratory Centre (BBLK) as Organizer of National External Quality Assurance (Balai Besar Laboratorium Kesehatan sebagai Penyelenggara Pemantapan Mutut Eksternal Tingkat Nasional)". [<https://dokumen.tips/documents/keputusan-menteri-kesehatan-republik-lembaran-negara-republik-indonesia-tahun.html>]. Accessed 8 September 2020.

[3] Setiawaty, Vivi et al. 2012. "Establishing a laboratory network of influenza diagnosis in Indonesia: an experience from the avian flu (H5N1) outbreak". *Clinical Epidemiology* 4: 209-12. [<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3426271/>]. Accessed 8 September 2020.

[4] U.S. Centres for Disease Control and Prevention. 2015. "International Activities Report FY 2014-2015: Indonesia". [[https://www.cdc.gov/flu/pdf/international/program/2014-15/2014-15-report\\_who-sear\\_indonesia.pdf](https://www.cdc.gov/flu/pdf/international/program/2014-15/2014-15-report_who-sear_indonesia.pdf)]. Accessed 8 September 2020.

## 2.2 LABORATORY SUPPLY CHAINS

### 2.2.1 Specimen referral and transport system

#### 2.2.1a

**Is there a nationwide specimen transport system?**

Yes = 1, No = 0

**Current Year Score: 1**

There is a nationwide specimen transport system in place in Indonesia. The Joint External Evaluation (JEE) for Indonesia from November 2017 gives Indonesia a score of 4 for D.1.2, the indicator for specimen referral and transport system. [1] A score of 4 for this indicator denotes that a "system is in place to transport specimens to national laboratories from at least 80% of intermediate level/districts within the country for advanced diagnostics." [2] The JEE notes there are standard operating procedures in place for specimen collection, packaging and transport to peripheral referral laboratories for TB, HIV, and other 23 diseases and to peripheral veterinary referral laboratories for 25 diseases. The Ministry of Agriculture (MOA) is able to send specimens to the World Organisation for Animal Health (OIE) referral laboratories in accordance with OIE guidelines; the MOA sent avian influenza samples to the OIE referral laboratory in Australia in 2008 and horse disease samples to Ireland in 2017. The Ministry of Health (MOH) is able to send specimens, including measles and avian influenza, to World Health Organisation (WHO) Collaborating Centres using airlines that meet International Air Transport Association standards. [1] Indonesia's TB specimen transport system has been in place since February 2015 and was piloted with assistance from USAID. Indonesia's district health offices can now send TB specimens to peripheral referral laboratories for confirmation using private sector commercial courier agencies. [1, 3]

[1] World Health Organisation (WHO). 20-24 November 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Indonesia". [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2018.9/en/>]. Accessed 8 September 2020.

[2] World Health Organisation (WHO). 2016. "Joint External Evaluation Tool: International Health Regulations (2005)". [[https://apps.who.int/iris/bitstream/handle/10665/204368/9789241510172\\_eng.pdf?sequence=1](https://apps.who.int/iris/bitstream/handle/10665/204368/9789241510172_eng.pdf?sequence=1)]. Accessed 8 September 2020.

[3] U.S. Agency for International Development (USAID). 2016. "DELIVER PROJECT Final Country Report: Indonesia". [[deliver.jsi.com/wp-content/uploads/2017/01/FinaCounRepo\\_ID.pdf](http://deliver.jsi.com/wp-content/uploads/2017/01/FinaCounRepo_ID.pdf)]. Accessed 8 September 2020.



## 2.2.2 Laboratory cooperation and coordination

### 2.2.2a

**Is there a plan in place to rapidly authorize or license laboratories to supplement the capacity of the national public health laboratory system to scale-up testing during an outbreak?**

Yes = 2 , Yes, but there is evidence of gaps in implementation = 1 , No = 0

**Current Year Score: 0**

There is insufficient publicly available evidence that there is a plan in place to rapidly authorize or license laboratories to supplement the capacity of the national public health laboratory system to scale-up testing during an outbreak. There is insufficient evidence on the websites of the Ministry of Health, the Ministry of Agriculture, or the National Institute for Health Research and Development to indicate a plan that includes these considerations. [1,2,3] Indonesia has specific disease plans for emerging and re-emerging infectious diseases, such as Legionellosis, Monkeypox, Meningokokus, Leptospirosis, MERS, and Ebola but these plans do not include specific considerations for authorizing or licensing laboratories to supplement the capacity of the national public health laboratory system to scale-up testing during an outbreak. [4]

For COVID-19 specifically, Health Ministerial Decree No. HK.01.07/MENKES/405/2020 on Laboratory Examination Network for Coronavirus Disease 2019 (COVID-19) Testing outlines a list of laboratories officially assigned and authorized for COVID-19 testing. This includes 12 regional laboratories and 3 networks of private laboratories, totalling 163 laboratories. [5]. This is supported by Presidential Direction on Covid-19 Management, which calls for the synergy of the Ministry of Health, State-owned Enterprise Agency, and Indonesian Police and Military to increase capacity for testing with a target of 10,000 samples per day. [6]

[1] Ministry of Health of the Republic of Indonesia. [<http://www.kemkes.go.id/>]. Accessed 8 October 2020.

[2] Ministry of Agriculture of the Republic of Indonesia. [<http://www.pertanian.go.id/>]. Accessed 8 October 2020.

[3] National Institute of Health Research and Development. [[www.litbang.kemkes.go.id](http://www.litbang.kemkes.go.id/)]. Accessed 8 October 2020.

[4] Ministry of Health of the Republic of Indonesia. "Emerging Infections (Infeksi Emerging)".

[<https://covid19.kemkes.go.id/downloads/#.X4HdedBKhPY>]. Accessed 8 October 2020.

[5] Ministry of Health of the Republic of Indonesia. Decree No. HK.01.07/MENKES/405/2020. "Laboratory Examination Network for Coronavirus Disease 2019 (COVID-19) (Keputusan Menteri Kesehatan Tentang Jejaring Laboratorium Pemeriksaan Coronavirus Disease 2019 (COVID-19)). [<https://covid19.kemkes.go.id/protokol-covid-19/jejaring-laboratorium-pemeriksaan-covid-19/#.X1fLwXlKhPY>]. Accessed 8 September 2020.

[6] Ministry of Health of the Republic of Indonesia. 3 May 2020. "6 Presidential Directions on Handling COVID-19 (6 Arahan Presiden Tangani Covid-19). [<http://sehatnegeriku.kemkes.go.id/baca/rilis-media/20200503/3733820/6-arahan-presiden-tangani-covid-19/>]. Accessed 8 September 2020.

## 2.3 REAL-TIME SURVEILLANCE AND REPORTING

### 2.3.1 Indicator and event-based surveillance and reporting systems

#### 2.3.1a

**Is there evidence that the country is conducting ongoing event-based surveillance and analysis for infectious disease?**

Yes, there is evidence of ongoing event-based surveillance and evidence that the data is being analyzed on a daily basis = 2,

Yes, there is evidence of ongoing event-based surveillance, but no evidence that the data are being analyzed on a daily basis

= 1, No = 0

**Current Year Score: 0**

There is insufficient evidence that Indonesia is conducting ongoing event-based surveillance and analysis for infectious disease and that the data is being analyzed on a daily basis. The Joint External Evaluation for Indonesia from November 2017 notes that the Ministry of Health's Sub-Directorate of Surveillance has "developed an event-based system that includes risk communication and information sharing for outbreak monitoring and response, and captures infectious disease and other hazards including foodborne disease." [1] iSIKHNAS (Sistem Informasi Kesehatan Hewan Nasional) collects data via text messages from the field and also aggregates laboratory data, disease reports, maps with animal traffic data, slaughterhouse data, production data, and population data. This online system is available to livestock owners, veterinarians, village data aggregators, meat inspectors, and other stakeholders. A 2018 usage report indicates 5 million farmers registered with over 1 million animal health reports, which includes reports on disease, treatment, case development, animal movement and termination, vaccination, definitive diagnoses, clinical signs, zoonoses suspects and culling. [2,3,4] Although no official usage reports exist beyond 2018, there is evidence that the system is still ongoing as of October 2019, and is being utilized by regional governments to analyze and perform surveillance of infectious diseases such as Bovine Ephemeral Fever. [5] There is no evidence to suggest that the iSIKHNAS system is not being utilized in 2020. There is no further evidence on this topic that would suggest that the iSIKHNAS system monitors for potential outbreaks outside of regular data collection on incidence of disease, on the websites of the Ministry of Health, Ministry of Defence, Ministry of Agriculture, Ministry of Research, and National Institute of Health Research and Development. [6,7,8,9,10]

The iSIKHNAS system is planned to be integrated with the SehatSatli Wildlife Health Information System from the Ministry of Environment and Forestry and EWARS (early warning and response) system from the Ministry of Health under a new information sharing platform for Zoonotic and Emerging Infectious Diseases called SIZE 2.0. The new integrated system will be coordinated by the Coordinating Ministry for Human Development and Cultural Affairs. [11,12]

[1] World Health Organisation (WHO). 20-24 November 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Indonesia". [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2018.9/en/>]. Accessed 8 September 2020.

[2] Ausvet. "Indonesia's National Animal Health and Production Information System". [<https://www.ausvet.com.au/our-work/projects/indonesias-national-animal-health-information-system/>]. Accessed 8 September 2020.

[3] iSIKHNAS. "iSIKHNAS". [<https://www.isikhnas.com/>]. Accessed 8 September 2020.

[4] iSIKHNAS. "Wiki Sumber Informasi iSIKHNAS (Wiki Information Source for iSIKHNAS)". [<http://wiki.isikhnas.com/w/Manuals:Registration/id>]. Accessed 8 September 2020.

[5] Animal Husbandry Department of East Java Province of the Republic of Indonesia. "Update on Animal Disease Incidence Information Based on the Integrated National Animal Health Information System (iSIKHNAS) in East Java Province in October 2019 (Update Informasi Kejadian Penyakit Hewan Berdasarkan integrated Sistem Informasi Kesehatan Hewan Nasional (iSIKHNAS) di Provinsi Jawa Timur bulan Oktober 2019)". [<http://disnak.jatimprov.go.id/web/infokegiatan/read/1492/update-informasi-kejadian-penyakit-hewan-berdasarkan-integrated-sistem-informasi-kesehatan-hewan-nasional-isikhnas-di-provinsi-jawa-timur-bulan-oktober-2019>]. Accessed 8 October 2020.

[6] Ministry of Health of the Republic of Indonesia. [<http://www.kemkes.go.id/>]. Accessed 8 October 2020.

[7] Ministry of Defence of the Republic of Indonesia. [<https://www.kemhan.go.id/>]. Accessed 8 September 2020.

[8] Ministry of Agriculture of the Republic of Indonesia. [<http://www.pertanian.go.id/>]. Accessed 8 September 2020.

[9] Ministry of Research, Technology, and Higher Education of the Republic of Indonesia. [<https://ristekdikti.go.id/>]. Accessed 8 September 2020.

[10] National Institute of Health Research and Development. [[www.litbang.kemkes.go.id](http://www.litbang.kemkes.go.id/)]. Accessed 8 September 2020.

[11] Food and Agriculture Organization of the United Nations. 10 February 2020. "Animal-to-human infectious disease information system size 2.0 application". [<http://www.fao.org/indonesia/news/detail-events/en/c/1262500/>]. Accessed 8 September 2020.

[12] SIZE 2.0. "Zoonosis and Emerging Infectious Disease Information System (Sistem Informasi Zoonosis dan EID)". [http://www.onehealth-size.id/guest]. Accessed 8 September 2020.

### 2.3.1b

**Is there publicly available evidence that the country reported a potential public health emergency of international concern (PHEIC) to the WHO within the last two years?**

Yes = 1 , No = 0

**Current Year Score: 1**

There is publicly available evidence that Indonesia reported a potential public health emergency of international concern (PHEIC) to the World Health Organization (WHO) within the last two years.

The Joint External Evaluation (JEE) for Indonesia conducted in November 2017 states that "a mechanism for reporting to WHO and OIE is in place, implemented, and operational." [1] While there is no evidence of a reported disease outbreak by the country to the WHO in 2020, there is evidence that Indonesia reported a "circulating vaccine-derived poliovirus type 1" to WHO on February 27, 2019. [2, 3] Specifically, in 2019, Indonesia also reported 2 genetically-linked isolates of vaccine-derived poliovirus type 1- (cVDPV1) from Papua Province to the WHO, which was then confirmed on February 13, 2019. [4]

Further, the first confirmed case of covid-19 in the country was reported on March 2, 2020, after the WHO had declared covid-19 to be a PHEIC. [5, 6]

[1] World Health Organisation (WHO). 20-24 November 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Indonesia". [http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2018.9/en/]. Accessed 8 September 2020.

[2] World Health Organization (WHO). "Emergencies preparedness, response: 2020." [https://www.who.int/csr/don/archive/year/2020/en/]. Accessed 14 May 2021.

[3] World Health Organization (WHO). "Emergencies preparedness, response: 2019." [https://www.who.int/csr/don/archive/year/2019/en/]. Accessed 14 May 2021.

[4] World Health Organization (WHO). "Circulating vaccine-derived poliovirus type 1 – Indonesia. 27 February 2019. [https://www.who.int/csr/don/27-february-2019-polio-indonesia/en/]. Accessed 8 September 2020.

[5] The Guardian. March 2, 2020. "First coronavirus cases confirmed in Indonesia amid fears nation is ill-prepared for outbreak". [https://www.theguardian.com/world/2020/mar/02/first-coronavirus-cases-confirmed-in-indonesia-amid-fears-nation-is-ill-prepared-for-outbreak] Accessed May 16, 2021.

[6] World Health Organization (WHO). 27 April 2020. "Archived: WHO Timeline - COVID-19". [https://www.who.int/news/item/27-04-2020-who-timeline---covid-19] Accessed May 16, 2021.

## 2.3.2 Interoperable, interconnected, electronic real-time reporting systems

### 2.3.2a

**Does the government operate an electronic reporting surveillance system at both the national and the sub-national level?**

Yes = 1 , No = 0

**Current Year Score: 1**

The Government of Indonesia operates an electronic reporting surveillance system at both the national and sub-national level. The Joint External Evaluation for Indonesia from November 2017 indicates that the country's Early Warning and Response System (EWARS) and the Indonesia animal health information system (iSIKHNAS) collects surveillance data for

human and animal health, respectively. The system operates at both the national and sub-national level as "data is routinely analysed, interpreted and fed back to provinces via the EWARS weekly bulletin, vaccine preventable disease bulletin, and the iSIKHNAS monthly bulletin." [1] Indonesia's national health information system (Sistem Informasi Kesehatan Nasional, or SIKNAS) is linked with provincial and district-level health information systems. [2]

[1] World Health Organisation (WHO). 20-24 November 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Indonesia". [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2018.9/en/>]. Accessed 8 September 2020.

[2] World Health Organisation (WHO). 2017. "State of Health Inequality: Indonesia".

[<http://apps.who.int/iris/bitstream/handle/10665/259685/9789241513340-eng.pdf;jsessionid=69689A7094A6F233E915DC7613CBEAC7?sequence=1>]. Accessed 8 September 2020.

### 2.3.2b

**Does the electronic reporting surveillance system collect ongoing or real-time laboratory data?**

Yes = 1, No = 0

**Current Year Score: 1**

Indonesia's electronic reporting surveillance system collects ongoing or real-time laboratory data. The EWARS human health surveillance system is a web-based system used to detect significant health events for public health and security. Potential disease reports originate from local health clinics (puskesmas) on a weekly basis via SMS to a national server. When unusual patterns of diagnoses, syndromes, or disease is algorithmically detected via the system, an alert is automatically sent to the program manager at the district, provincial or national level. [1] The iSIKHNAS animal health surveillance system operates similarly. Village reporters on the field send coded SMS reports to a central server. These reports are automatically updated into the system and can trigger automatic alerts regarding potential outbreak of diseases. This database of reports is readily accessible in real-time by researchers, animal health professionals, and other relevant parties. [2] The EWARS and iSIKHNAS systems are being integrated with the SethatSatli (Wildlife Health Information System) into a One Health information sharing platform called SIZE 2.0 (Sistem Informasi Zoonosis dan Emerging/Re-emerging Infectious Diseases) under the Coordinating Ministry for Human Development and Cultural Affairs. It is currently being piloted in 4 districts. [3]

[1] Hapsari, Ratna Budi, et al. 2017. "Early warning alert and response system (EWARS) in Indonesia: Highlight from the first years of implementation, 2009-2011". [<http://ejournal.litbang.kemkes.go.id/index.php/HSJI/article/view/7572/5479>]. Accessed 8 September 2020.

[2] iSIKHNAS. "iSIKHNAS". [<https://www.isikhnas.com/>]. Accessed 8 September 2020.

[3] Food and Agriculture Organization of the United Nations. 10 February 2020. "Animal-to-human infectious disease information sharing through size 2.0 application". [<http://www.fao.org/indonesia/news/detail-events/en/c/1262500/>]. Accessed 8 September 2020.

## 2.4 SURVEILLANCE DATA ACCESSIBILITY AND TRANSPARENCY

### 2.4.1 Coverage and use of electronic health records

#### 2.4.1a

**Are electronic health records commonly in use?**

Electronic health records are commonly in use = 2, Electronic health records are not commonly in use, but there is evidence they are used = 1, No evidence electronic health records are in use = 0

**Current Year Score: 0**

There is insufficient evidence that health records are commonly used in Indonesia, but there is evidence that they are used. Health Ministerial Regulation No. 46 Year 2017 on National E-Health Strategy mentions that e-health initiatives, which includes electronic health records, have been implemented in several institutions such as the Ministry of Health, Ministry of Communication and Information, Ministry of National Development Planning, and the Social Security Implementation Agency. [1] District and Provincial health information systems are also linked to the national health information system (Sistem Informasi Kesehatan Nasional, or SIKNAS) and local government health facilities and hospitals are equipped with this network infrastructure. [2,3] However, while there is evidence that EHR are being used in Indonesia, there is no information about the level of usage. [3,4] In fact, research publications indicate that physicians still rely on paper-based health records. [5] There is no additional information on level of usage on the websites of the Ministry of Health and the National Institute for Health Research and Development. [6,7]

[1] Ministry of Health of the Republic of Indonesia. Regulation No. 46 Year 2017. "National E-Health Strategy (Peraturan Menteri Kesehatan Tentang Strategi E-Kesehatan Nasional)". [<https://peraturan.bpk.go.id/Home/Details/139565/permenkes-no-46-tahun-2017>]. Accessed 8 September 2020.

[2] World Health Organisation (WHO). 2017. "State of Health Inequality: Indonesia".

[<http://apps.who.int/iris/bitstream/handle/10665/259685/9789241513340-eng.pdf;jsessionid=69689A7094A6F233E915DC7613CBEAC7?sequence=1>]. Accessed 8 September 2020.

[3] World Health Organisation (WHO). "E-health and Innovation in Women's and Children's Health - 2013 Survey: Indonesia".

[<https://www.who.int/goe/publications/atlas/2013/idn.pdf?ua=1>]. Accessed 8 September 2020.

[4] Economist Intelligence Unit (EIU). "Value-Based Healthcare: A Global Based Assessment - Indonesia".

[<https://eiperspectives.economist.com/healthcare/value-based-healthcare-global-assessment-1>]. Accessed 8 September 2020.

[5] Wardoyo, Retantyo et al. 2017. "Electronic Medical Record for Family Physician Clinic in Indonesia". International Journal of Advances in Science Engineering and Technology 5

[4] : Spl. Issue 2. [[http://www.iraj.in/journal/journal\\_file/journal\\_pdf/6-432-15184117408-13.pdf](http://www.iraj.in/journal/journal_file/journal_pdf/6-432-15184117408-13.pdf)] Accessed 8 September 2020.

[6] Ministry of Health of the Republic of Indonesia. [<http://www.kemkes.go.id/>]. Accessed 8 September 2020.

[7] National Institute of Health Research and Development. [[www.litbang.kemkes.go.id](http://www.litbang.kemkes.go.id)]. Accessed 8 September 2020.

### 2.4.1b

**Does the national public health system have access to electronic health records of individuals in their country?**

Yes = 1 , No = 0

**Current Year Score: 0**

There is insufficient evidence that the Indonesian national public health system has access to electronic health records of individuals in their country. Indonesia's national health information system (Sistem Informasi Kesehatan Nasional, or SIKNAS) is linked with provincial and district-level health information systems. A 2017 report from the WHO and the Indonesian government notes that "these systems have become fragmented such that hospitals, districts and municipalities often have multiple systems that reflect various formats, software and datasets, and are of variable quality. The Centre for Data and Information (Pusat Data dan Informasi/ PUSDATIN) in the Ministry of Health oversees the coordination of health information systems in Indonesia." It does not, however, mention if the Ministry of Health has access to individual electronic health records through SIKNAS. [1] Chapter 5, Section F (Mission 5) of the Roadmap Performance Matrix of Health Ministerial Decree No. 192/MENKES/SK/VI/2012SIKNAS mentions integrating patient electronic medical records as part of SIKNAS (see

pages 46 and 67), but does not indicate if the Ministry has access to individual records. [2]

[1] World Health Organisation (WHO). 2017. "State of Health Inequality: Indonesia".

[<http://apps.who.int/iris/bitstream/handle/10665/259685/9789241513340-eng.pdf;jsessionid=69689A7094A6F233E915DC7613CBEAC7?sequence=1>]. Accessed 8 September 2020.

[2] Ministry of Health of the Republic of Indonesia. Decision No. 192/MENKES/SK/VI/2012. "Roadmap Action Plan for Strengthening the National Health Information System (Roadmap Rencana Aksi Penguatan Sistem Informasi Kesehatan Indonesia)". [[http://web.rshs.or.id/public\\_html/wp-content/uploads/2014/04/KMK-No.-192-ttg-Roadmap-Aksi-Penguatan-SIK-Indonesia1.pdf](http://web.rshs.or.id/public_html/wp-content/uploads/2014/04/KMK-No.-192-ttg-Roadmap-Aksi-Penguatan-SIK-Indonesia1.pdf)]. Accessed 8 September 2020.

### 2.4.1c

**Are there data standards to ensure data is comparable (e.g., ISO standards)?**

Yes = 1, No = 0

**Current Year Score: 0**

There is no evidence on data standards to ensure data is comparable for electronic health records (EHR) in Indonesia. Electronic medical records are part of SIKNAS (Sistem Informasi Kesehatan Nasional), which is Indonesia's national health information system. SIKNAS does not have a website. [1,2] There is no information regarding EHR data standards on the websites of the Ministry of Health and the National Institute of Health Research and Development. Health Ministerial Regulation No. 46 Year 2017 on National E-Health Strategy notes that Indonesia needs to develop technical standards for their e-health system for interoperability, including standardized output for health information. [3,4,5] Indonesia is in the process of developing EHR standards. [6]

[1] World Health Organisation (WHO). 2017. "State of Health Inequality: Indonesia".

[<http://apps.who.int/iris/bitstream/handle/10665/259685/9789241513340-eng.pdf;jsessionid=69689A7094A6F233E915DC7613CBEAC7?sequence=1>]. Accessed 8 September 2020.

[2] Ministry of Health of the Republic of Indonesia. Decision No. 192/MENKES/SK/VI/2012. "Roadmap Action Plan for Strengthening the National Health Information System (Roadmap Rencana Aksi Penguatan Sistem Informasi Kesehatan Indonesia)". [[http://web.rshs.or.id/public\\_html/wp-content/uploads/2014/04/KMK-No.-192-ttg-Roadmap-Aksi-Penguatan-SIK-Indonesia1.pdf](http://web.rshs.or.id/public_html/wp-content/uploads/2014/04/KMK-No.-192-ttg-Roadmap-Aksi-Penguatan-SIK-Indonesia1.pdf)]. Accessed 8 September 2020.

[3] Ministry of Health of the Republic of Indonesia. Regulation No. 46 Year 2017. "Nasional E-Health Strategy (Peraturan Menteri Kesehatan tentang Strategi E-Kesehatan Nasional)". [<https://peraturan.bpk.go.id/Home/Details/139565/permenkes-no-46-tahun-2017>]. Accessed 8 September 2020.

[4] Ministry of Health of the Republic of Indonesia. [<http://www.kemkes.go.id/>]. Accessed 8 September 2020.

[5] National Institute of Health Research and Development. [[www.litbang.kemkes.go.id](http://www.litbang.kemkes.go.id/)]. Accessed 8 September 2020.

[6] Mathai, N., M.F. Shiratudin, and F. Sohel. 2017. "Electronic Health Record Management: Expectations, Issues, and Challenges". *Journal of Health and Medical Informatics* 8

[3] : 265. [<https://www.omicsonline.org/open-access/electronic-health-record-management-expectations-issues-and-challenges-2157-7420-1000265.pdf>]. Accessed 8 September 2020.

## 2.4.2 Data integration between human, animal, and environmental health sectors

### 2.4.2a

**Is there evidence of established mechanisms at the relevant ministries responsible for animal, human, and wildlife surveillance to share data (e.g., through mosquito surveillance, brucellosis surveillance)?**

Yes = 1, No = 0

**Current Year Score: 0**

There is insufficient evidence of an established mechanisms at the relevant ministries responsible for animal, human, and wildlife surveillance to share data. The Joint External Evaluation (JEE) for Indonesia from November 2017 notes that Indonesia has a common platform called SIZE (Sistem Informasi Zoonoses dan Emerging Infectious Diseases) that was established to access animal and human health systems, but "the SIZE MOU between relevant ministries is still in progress." The JEE also recommends that "an electronic mechanism is required for sharing data between the Ministry of Health (MOH), Ministry of Agriculture (MOA), and Ministry of Environment and Forestry (MEF), from local to national levels." [1] The human and animal health systems are known as SIKNAS and iSIKHNAS, respectively. [2, 3] There is no additional information on the websites of the MOH, MOA, MEF, and National Institute for Health Research and Development. [4, 5, 6, 7] SIKNAS does not have a website.

[1] World Health Organisation (WHO). 20-24 November 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Indonesia". [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2018.9/en/>]. Accessed 8 September 2020.

[2] Ministry of Health of the Republic of Indonesia. "Roadmap: Sistem Kesehatan Nasional, tahun 2011-2014". [<http://www.depkes.go.id/download.php?file=download/pusdatin/lain-lain/roadmap-sik.pdf>] Accessed 8 September 2020.

[3] "iSIKHNAS". [<https://www.isikhnas.com/en>]. Accessed 8 September 2020.

[4] Ministry of Health of the Republic of Indonesia. [<http://www.kemkes.go.id/>]. Accessed 8 September 2020.

[5] Ministry of Agriculture of the Republic of Indonesia. [<http://www.pertanian.go.id/>]. Accessed 8 September 2020.

[6] Ministry of Environment and Forestry of the Republic of Indonesia. [<http://www.menlhk.go.id/>]. Accessed 8 September 2020.

[7] National Institute of Health Research and Development. [[www.litbang.kemkes.go.id](http://www.litbang.kemkes.go.id/)]. Accessed 8 September 2020.

## 2.4.3 Transparency of surveillance data

### 2.4.3a

**Does the country make de-identified health surveillance data on infectious diseases publicly available via reports (or other format) on government websites (such as the Ministry of Health, Ministry of Agriculture, or similar)?**

Yes = 1, No = 0

**Current Year Score: 0**

There is insufficient evidence that Indonesia makes de-identified health surveillance data on disease outbreaks publicly available via reports on government websites. The Ministry of Health's Centre for Data and Health Information provides national and provincial level data on its website. [1] The Ministry of Health's annual national report (Profil Kesehatan Indonesia) includes de-identified incidence data for various diseases such as malaria, rabies, leptospirosis, etc. [2] As of September 8, 2020, The Ministry of Health's Emerging Infections website currently provides daily updates of COVID-19 cases, including a periodically updated visual dashboard containing: number of specimens being checked, confirmed cases, number of deaths, recoveries, hospitalizations, and suspected cases. This data has been recorded since March 2020. The website also had weekly reports and data visualization updates on emerging infectious diseases such as: polio, Avian Influenza, MERS,

Ebola, and Lassa Fever but these are no longer available on the MOH website. [3]

[1] Centre for Data and Health Information, Ministry of Health of the Republic of Indonesia. "Publication Data and Information (Publikasi Data dan Informasi)". [<http://www.pusdatin.kemkes.go.id/folder/view/01/structure-publikasi-data-pusat-data-dan-informasi.html>]. Accessed 8 September 2020.

[2] Center for Data and Health Information of the Ministry of Health of the Republic of Indonesia. "Indonesia Health Profile (Profil Kesehatan Indonesia)". [<http://www.pusdatin.kemkes.go.id/folder/view/01/structure-publikasi-pusdatin-profil-kesehatan.html>]. Accessed 8 September 2020.

[3] Ministry of Health of the Republic of Indonesia. "Emerging Infections: Updated Media Information on Emerging Infectious Diseases (Infeksi Emerging: Media Informasi Resmi Terkini Penyakit Infeksi Emerging)".

[<https://covid19.kemkes.go.id/category/situasi-infeksi-emerging/#.X1gTUnlKhPY>]. Accessed 8 September 2020.

### 2.4.3b

**Does the country make de-identified COVID-19 surveillance data (including details such as daily case count, mortality rate, etc) available via daily reports (or other formats) on government websites (such as the Ministry of Health, or similar)?**

Yes = 1, No = 0

**Current Year Score: 1**

Indonesia's Ministry of Health's Emerging Infections website currently provides daily updates of COVID-19 cases, including a periodically updated visual dashboard containing: number of specimens being checked, confirmed cases, number of deaths, recoveries, hospitalizations, and suspected cases. [1] This data has been recorded since March 2020. A COVID-19 Management Task Force also provides this information on their website, including a regional risk map and aggregate data on foreign national cases. [2]

[1] Ministry of Health of the Republic of Indonesia. "Emerging Infections: Updated Media Information on Emerging Infectious Diseases (Infeksi Emerging: Media Informasi Resmi Terkini Penyakit Infeksi Emerging)" [

<https://covid19.kemkes.go.id/category/situasi-infeksi-emerging/#.X1gTUnlKhPY>]. Accessed 8 September 2020.

[2] COVID-19 Management Task Force. "Distribution Map (Peta Sebaran)". [<https://covid19.go.id/peta-sebaran>]. Accessed 8 September 2020.

## 2.4.4 Ethical considerations during surveillance

### 2.4.4a

**Is there legislation and/or regulations that safeguard the confidentiality of identifiable health information for individuals, such as that generated through health surveillance activities?**

Yes = 1, No = 0

**Current Year Score: 1**

Indonesia has a law that safeguards the confidentiality of identifiable health information for individuals, such as that generated through health surveillance activities. Article 57 of Law No. 36 Year 2009 regarding health (13 October 2009) states that individuals are entitled to the confidentiality of the personal health information provided to and collected by health care providers. [1] In 2018, the Indonesian government issued a new draft personal data protection law, but the timeline for its passage by Parliament is uncertain. [2]



- [1] Ministry of Health of the Republic of Indonesia. Law No. 36/2009. "Health (Kesehatan)". [https://www.ilo.org/dyn/natlex/natlex4.detail?p\_lang=en&p\_isn=91185]. Accessed 8 September 2020.
- [2] Innis, Mark. 18 May 2018. "Indonesia: Government Pushes Draft Data Protection Law". [https://globalcompliancenews.com/indonesia-draft-data-protection-law-20180518/]. 8 September 2020.

#### 2.4.4b

**Is there legislation and/or regulations safeguarding the confidentiality of identifiable health information for individuals, such as that generated through health surveillance activities, include mention of protections from cyber attacks (e.g., ransomware)?**

Yes = 1 , No = 0

**Current Year Score: 0**

Indonesia's law that safeguards the confidentiality of identifiable health information for individuals, such as that generated through health surveillance activities, does not include mention of protections from cyber attacks (e.g., ransomware). Article 57 of Law No. 36 Year 2009 regarding health (13 October 2009) states that individuals are entitled to the confidentiality of the personal health information provided to and collected by health care providers. There is no mention of protections from cyber attacks. [1] In 2018, the Indonesian government issued a new draft personal data protection law, but the timeline for its passage by Parliament is uncertain. [2] There is no additional relevant information on the websites of the Ministry of Health and the National Institute for Health Research and Development. [3, 4]

- [1] Ministry of Health of the Republic of Indonesia. Law No. 36/2009. "Health (Kesehatan)". [https://www.ilo.org/dyn/natlex/natlex4.detail?p\_lang=en&p\_isn=91185]. Accessed 8 September 2020.
- [2] Innis, Mark. 18 May 2018. "Indonesia: Government Pushes Draft Data Protection Law". [https://globalcompliancenews.com/indonesia-draft-data-protection-law-20180518/]. 8 September 2020.
- [3] Ministry of Health of the Republic of Indonesia. [http://www.kemkes.go.id/]. Accessed 8 September 2020.
- [4] National Institute for Health Research and Development (NIHRD) of the Republic of Indonesia. [https://www.litbang.kemkes.go.id/]. Accessed 8 September 2020.

### 2.4.5 International data sharing

#### 2.4.5a

**Has the government made a commitment via public statements, legislation and/or a cooperative agreement to share surveillance data during a public health emergency with other countries in the region?**

Yes, commitments have been made to share data for more than one disease = 2, Yes, commitments have been made to share data only for one disease = 1, No = 0

**Current Year Score: 1**

There is evidence that the government made a commitment via public statements, legislation and/or cooperative agreement to share surveillance data during public health emergencies with other countries in the region, but only for one disease. There is no evidence on the websites of the Ministry of Health, the National Institute for Health Research and Development, Ministry of Foreign Affairs, or ASEAN. [1,2,3,4]

The foreign minister of Indonesia made a joint statement with ASEAN and the People's Republic of China on February 20, 2020 to increase cooperation during the COVID-19 pandemic to share information in a timely manner which includes "exchanging available epidemiological information, technical guidelines and solution for epidemic prevention and control,

diagnosis, treatment and surveillance." [5] Additionally, after the 52nd ASEAN Economic Minister's Meeting on August 24-29, 2020, Indonesia, along with ASEAN member countries pledged "to collaborate and support ASEAN's external partners' COVID-19 vaccine development through sharing of key clinical data and reports." [6] However these commitments do not apply beyond the COVID-19 pandemic and into future public health emergencies.

[1] Ministry of Health of the Republic of Indonesia. [<http://www.kemkes.go.id/>]. Accessed 8 October 2020.

[2] National Institute of Health Research and Development. [[www.litbang.kemkes.go.id](http://www.litbang.kemkes.go.id/)]. Accessed 8 October 2020.

[3] Ministry of Foreign Affairs of the Republic of Indonesia. [<https://kemlu.go.id/>]. Accessed 8 October 2020.

[4] Association of Southeast Asian Nations (ASEAN). [<https://asean.org/>]. Accessed 8 October 2020.

[5] Association for Southeast Asian Nations (ASEAN). "Statement of the Special ASEAN-China Foreign Ministers' Meeting on the Coronavirus Disease 2019 (COVID-19)". [<https://asean.org/statement-special-asean-china-foreign-ministers-meeting-coronavirus-disease-2019-covid-19/>]. Accessed 8 September 2020.

[6] MalayMail. "Miti: Asean to share data to support Covid-19 vaccine development".

[<https://www.malaymail.com/news/malaysia/2020/08/30/miti-asean-to-share-data-to-support-covid-19-vaccine-development/1898546>]. Accessed 8 September 2020.

## 2.5 CASE-BASED INVESTIGATION

### 2.5.1 Case investigation and contact tracing

#### 2.5.1a

**Is there a national system in place to provide support at the sub-national level (e.g. training, metrics standardization and/or financial resources) to conduct contact tracing in the event of a public health emergency?**

Yes, there is evidence that the national government supports sub-national systems to prepare for future public health emergencies = 2, Yes, there is evidence that the national government supports sub-national systems, but only in response to active public health emergencies = 1, No = 0

**Current Year Score: 1**

There is some evidence that Indonesia has a national system in place to provide support at the sub-national level to conduct contact tracing in the event of an active public health emergency. There is no further information for future emergencies on the websites of the Ministry of Health, the National Institute for Research and Development, and the Ministry of Agriculture regarding this topic. [1,2,3]

Indonesia has protocols for contact tracing through Law No. 6 Year 2018 on Health Quarantine, which covers quarantine procedures and guidelines that could be taken during or to prevent a public health emergency. This includes the authority for border control staff to identify suspected and potential cases for quarantine. Those who are deemed healthy and safe are given health alert cards for contact tracing purposes. [4]

For COVID-19 specifically, the Ministry of Health's COVID-19 Mitigation and Management Guide sets guidelines and protocols for contact tracing procedures, including a standard format for recording information. [5] It also mentions two online systems that have been set-up for COVID-19 reporting through an application called All Record TC-19 [6] and a COVID-19 Daily Reporting Online System [6] for contact tracing responsible units in local health clinics (puskesmas), hospitals, other health facilities and clinics, laboratories, and government offices. This guide also has metrics for evaluating the nation's efforts in COVID-19 management. [5] Presidential Decree No. 7 Year 2020 on COVID-19 Accelerated Management Task Force stipulates the formation of a COVID-19 task force which is tasked to mitigate, detect and respond to COVID-19 pandemic. Funding for this task force is supported by the national and regional budgets. [8] Presidential Instruction No. 82 Year 2020 on COVID-19

Management Committee and National Economy Recovery further details that the COVID-19 Management taskforce will have an operational structure at both central and district levels. [9]

- [1] Ministry of Health of the Republic of Indonesia. [<http://www.kemkes.go.id/>]. Accessed 8 October 2020.
- [2] National Institute of Health Research and Development. [[www.litbang.kemkes.go.id](http://www.litbang.kemkes.go.id/)]. Accessed 8 October 2020.
- [3] Ministry of Agriculture of the Republic of Indonesia. [<http://www.pertanian.go.id/index.php>]. Accessed 8 September 2020.
- [4] Republic of Indonesia. Law No. 6 Year 2018. "Health Quarantine (Kekarantinaan Kesehatan)". [<https://sipuu.setkab.go.id/PUUdoc/175564/UU%20Nomor%206%20Tahun%202018.pdf>]. Accessed 8 September 2020.
- [5] Ministry of Health of the Republic of Indonesia. "COVID-19 Mitigation and Management Guide (Pedoman Pencegahan dan Pengendalian Coronavirus Disease (COVID-19))". [[https://covid19.go.id/storage/app/media/Protokol/REV-05\\_Pedoman\\_P2\\_COVID-19\\_13\\_Juli\\_2020.pdf](https://covid19.go.id/storage/app/media/Protokol/REV-05_Pedoman_P2_COVID-19_13_Juli_2020.pdf)]. Accessed 8 September 2020.
- [6] Ministry of Health of the Republic of Indonesia. "allrecord TC-19". [<https://allrecord-tc19.kemkes.go.id/>]. Accessed 8 September 2020.
- [7] Ministry of Health of the Republic of Indonesia. "Daily Reporting COVID-19" (Pelaporan Harian COVID-19). [<https://sites.google.com/view/laporancovid19online/halaman-muka?authuser=0>]. Accessed 8 September 2020.
- [8] President of the Republic of Indonesia. Presidential Decree No. 7 Year 2020. "Accelerated Management of Corona Virus Disease 2019 (COVID-19) Task Force (Keputusan Presiden tentang Gugus Tugas Percepatan Penanganan Corona Virus Disease 2019 (COVID-19))". [<https://peraturan.bpk.go.id/Home/Details/134544/keppres-no-7-tahun-2020>]. Accessed 8 September 2020.
- [9] President of the Republic of Indonesia. Presidential Regulation No. 82 Year 2020. "Corona Virus Disease 2019 (COVID-19) Management Committee and National Economic Recovery (Komite Penanganan Corona Virus Disease 2019 (COVID-19) dan Pemulihan Ekonomi Nasional)". [[https://sipuu.setkab.go.id/PUUdoc/176156/Perpres\\_Nomor\\_82\\_Tahun\\_2020\\_%28Distribusi\\_II%29.pdf](https://sipuu.setkab.go.id/PUUdoc/176156/Perpres_Nomor_82_Tahun_2020_%28Distribusi_II%29.pdf)]. Accessed 8 September 2020.

### 2.5.1b

**Does the country provide wraparound services to enable infected people and their contacts to self-isolate or quarantine as recommended, particularly economic support (paycheck, job security) and medical attention?**

Yes, both economic support and medical attention are provided = 2, Yes, but only economic support or medical attention is provided = 1, No = 0

**Current Year Score: 0**

There is insufficient evidence that Indonesia has wraparound services to enable infected people and their contacts to self-isolate or quarantine as recommended, particularly economic support (paycheck, job security) and medical attention. There is insufficient evidence to indicate wraparound services for suspected cases to self-isolate on the websites of the Ministry of Health, National Institute for Health Research and Development, and Ministry of Social Affairs. [1,2,3]

For COVID-19 specifically, Social Affairs Ministerial Regulation No. 54 Year 2020 on the Implementation of Groceries and Cash Fund Social Assistance for the Impact Management of COVID-19 stipulates a food assistance and cash transfer support for those impacted by COVID-19, and is implemented by local governments [4] However, this is for the general population impacted by COVID-19 rather than suspected COVID-19 cases who are recommended/required to self-isolate. The Ministry of Health Handbook suggests the availability of medical support in that the standard protocol for suspected COVID-19 cases is monitoring by staff from local health facilities (Fasilitas Kesehatan Tingkat Pertama, FKTP) staff and public health offices. Monitoring is done daily for suspected cases and may be done virtually or in-person, including physical screening and body

temperature checks. A letter is given to those who has completed their quarantine with monitoring. [5]

[1] Ministry of Health of the Republic of Indonesia. [<http://www.kemkes.go.id/>]. Accessed 8 October 2020.

[2] National Institute of Health Research and Development of the Republic of Indonesia. [[www.litbang.kemkes.go.id](http://www.litbang.kemkes.go.id/)]. Accessed 8 October 2020.

[3] Ministry of Social Affairs of the Republic of Indonesia. [<https://kemsos.go.id/>]. Accessed 8 October 2020.

[4] Ministry of Health of the Republic of Indonesia. Ministerial Decree No. 54 Year 2020. "Implementation of Groceries Social Benefits and Cash Social Benefits in Managing the Impact of Corona Virus Disease 2019 (COVID-19) (Pelaksanaan Bantuan Sosial Sembako dan Bantuan Sosial Tunai Dalam Penanganan Dampak Corona Virus Disease 2019 (COVID-10))."

[<https://jdih.kemsos.go.id/pencarian/www/storage/document/Kepmensos%20No.%2054-HUK-2020.pdf>]. Accessed 8 September 2020.

[5] Ministry of Health of the Republic of Indonesia. "COVID-19 Mitigation and Management Guide (Pedoman Pencegahan dan Pengendalian Coronavirus Disease (COVID-19))". [[https://covid19.go.id/storage/app/media/Protokol/REV-05\\_Pedoman\\_P2\\_COVID-19\\_13\\_Juli\\_2020.pdf](https://covid19.go.id/storage/app/media/Protokol/REV-05_Pedoman_P2_COVID-19_13_Juli_2020.pdf)]. Accessed 8 September 2020.

### 2.5.1c

**Does the country make de-identified data on contact tracing efforts for COVID-19 (including the percentage of new cases from identified contacts) available via daily reports (or other format) on government websites (such as the Ministry of Health, or similar)?**

Yes = 1 , No = 0

**Current Year Score: 0**

There is insufficient evidence that Indonesia makes de-identified data on national contact tracing efforts for COVID-19 available via daily reports on government websites. No evidence of this data was found on the websites of the Ministry of Health, the National Institute for Health Research and Development, and the National COVID-19 Task Force. [1,2,3]

However, district and city-level contact tracing efforts are available. The City of Jakarta government website displays and differentiates COVID-19 "suspects", individuals that had "close contact" with a confirmed case and "confirmed" cases within the region. The website also states the number of "close contact" cases that have completed isolation and that are currently isolating. [4] The district of Central Java also has an aggregate data of "suspected" and "probable" cases for the district on their website. [5]

[1] Ministry of Health of the Republic of Indonesia. [<http://www.kemkes.go.id/>]. Accessed 8 October 2020.

[2] National Institute of Health Research and Development of the Republic of Indonesia. [[www.litbang.kemkes.go.id](http://www.litbang.kemkes.go.id/)]. Accessed 8 October 2020

[3] COVID-19 Management Task Force. "Distribution Map (Peta Sebaran)". [<https://covid19.go.id/peta-sebaran>]. Accessed 8 September 2020.

[4] City of Jakarta of the Republic of Indonesia. "Covid-19 Monitoring Data". [<https://corona.jakarta.go.id/en/data-pemantauan>]. Accessed 8 September 2020.

[5] Central Java District of the Republic of Indonesia. "Central Java COVID-19 Case Statistics (Statistik Kasus COVID-19 Jawa Tengah)". [<https://corona.jatengprov.go.id/data>]. Accessed 8 September 2020.

## 2.5.2 Point of entry management

### 2.5.2a

**Is there a joint plan or cooperative agreement between the public health system and border control authorities to identify suspected and potential cases in international travelers and trace and quarantine their contacts in the event of a public health emergency?**

Yes, plan(s)/agreement(s) are in place to prepare for future public health emergencies = 2, Yes, but plan(s)/agreement(s) are in place only in response to active public health emergencies = 1, No = 0

**Current Year Score: 2**

Indonesia has a joint plan or cooperative agreement between the public health system and border control authorities to identify suspected and potential cases in international travelers and trace and quarantine their contacts in the event of active and future public health emergencies.

Law No. 6 Year 2018 on Health Quarantine covers quarantine procedures and guidelines that could be taken during or to prevent a public health emergency. This includes large-scale social restrictions (Pembatasan Sosial Skala Besar) that imposes restrictions for air, ground, and sea travel between regional and international borders. Travel between borders nationally and internationally require health certificates, and border control authorities identify suspected and potential cases for quarantine. Those who are deemed healthy and safe are given health alert cards for contact tracing purposes. [1]

Ministry of Health Circular Letter No. HK.02.01/MENKES/313/2020 on Health Protocols for the Management of Returning Indonesian Citizens and Arrival of Foreign Nationals requires health clearance letters from travelers, who are then monitored by staff from the visitor's city/district health office during a prescribed 14 day self-quarantine. Travelers without a health certificate or that show signs of symptoms are immediately ushered into a prescribed quarantine facility. [2]

COVID-19 Accelerated Management Task Force Circular Letter No. 7 Year 2020 on Travel Criteria and Requirements of People During the 'New Normal' Adaption Period for a Productive and Coronavirus-Safe Society, stipulate that cross-border travels within the country and from outside the country from any mode of transportation must follow health safety protocols, including provision of a negative PCR test 7 days prior to travel, or negative Rapid-Test 3 days prior to travel, must provide a letter indicating that they are free of influenza-like symptoms and must download and activate the PeduliLindungi app which tracks location data for COVID-19 surveillance. The app automatically transfers information between other users within the vicinity and automatically alerts individuals that are in areas with confirmed COVID-19 cases or are in close proximity of someone who has been in contact with a confirmed COVID-19 case. This also helps government staff in the COVID-19 task force for contact tracing purposes. [3] The COVID-19 Accelerated Management Task Force is led by the Head of the National Disaster Management Authority with the Assistant Operations Commander of the Indonesian National Army and the Assistant Chief of Operations of the Indonesian State Police as vice chairmans. Implementing units include members from the Coordinating Ministry of Human Development and Culture, the Ministry of Health, the Ministry of Internal Affairs, the Ministry of Foreign Affairs, the Ministry of Communication and Informatics, the Ministry of Education and Culture, the Disaster Management Authority, Indonesian Military, Indonesian Police, and the Presidential Office Staff. [4]

[1] Republic of Indonesia. Law No. 6 Year 2018. "Health Quarantine (Kekarantinaan Kesehatan)".

[<https://sipuu.setkab.go.id/PUUdoc/175564/UU%20Nomor%206%20Tahun%202018.pdf>]. Accessed 8 September 2020.

[2] Ministry of Health of the Republic of Indonesia. Circular Letter No. HK.02.01/MENKES/313/2020. "Health Protocols for the Management of Returning Indonesian Citizens and Arrival of Foreign Nationals at Soekarno-Hatta and Juanda Airports (Penanganan Kepulangan Warga Negara Indonesia (WNI) dan Kedatangan Warga Negara Asing (WNA) dari Luar Negeri di Bandar Udara Soekarno Hatta dan Bandar Udara Juanda).

[<https://kemlu.go.id/download/L1NoYXJlZCUyMERvY3VtZW50cy9DaXJdWxhciUyME5vdGUiMjByZWdhcmRpbmclMjBMXXRlc>

3QIMjBIZWFsdGglMjBQcm90b2NvbCUyMChNb0glMjBDbXJjdWxhciUyMExldHRlciUyMDMzOF8yMDIwKS5wZGY=]. Accessed 8 September 2020.

[3] Accelerated Management of COVID-19 Task Force of the Republic of Indonesia. Circular Letter No. 7 Year 2020. "Travel Criteria and Requirements of People During the 'New Normal' Adaption Period for a Productive and Coronavirus-Safe Society (Kriteria dan Persyaratan Perjalanan Orang Dalam Masa Adaptasi Kebiasaan Baru Menuju Masyarakat Produktif dan Aman Corona Virus Disease 2019 (COVID-19))."

[<https://kemlu.go.id/download/L1NoYXJlZCUyMERvY3VtZW50cy9TRSUyMDclMjBHVUdBUy5wZGY=>]. Accessed 8 September 2020.

[4] President of the Republic of Indonesia. Decree No. 7 Year 2020. "COVID-19 Management Accelerated Task Force (Gugus Tugas Percepatan Penanganan Corona Virus Disease 2019 (COVID-19))."

[<https://peraturan.bpk.go.id/Home/Details/134544/keppres-no-7-tahun-2020>]. Accessed 8 October 2020.

## 2.6 EPIDEMIOLOGY WORKFORCE

### 2.6.1 Applied epidemiology training program, such as the field epidemiology training program, for public health professionals and veterinarians (e.g., Field Epidemiology Training Program [FETP] and Field Epidemiology Training Program for Veterinarians [FETPV])

#### 2.6.1a

Does the country meet one of the following criteria?

- Applied epidemiology training program (such as FETP) is available in country
- Resources are provided by the government to send citizens to another country to participate in applied epidemiology training programs (such as FETP)

Needs to meet at least one of the criteria to be scored a 1 on this measure. , Yes for both = 1 , Yes for one = 1 , No for both = 0

**Current Year Score: 1**

Indonesia has an applied epidemiology training programme (such as FETP) available in-country, but there is no evidence that resources are provided by the government to send citizens to another country to participate in applied epidemiology training programmes (such as FETP). The Joint External Evaluation (JEE) for Indonesia, conducted in November 2017, notes that Indonesia has had an advanced FETP since 1982. The Indonesian FETP also contributes to international partnerships through TEPHINET and ASEAN+3 FETN. [1] Indonesia's provincial health offices contribute to the cost of FETP training. The FETP also has several international donors, e.g. AusAID, European Union, U.S. Centres for Disease Control. [2] There is no mention in the JEE or on the website of the Ministry of Health about the government providing resources to send citizens to applied epidemiology training programmes abroad. [1, 3]

[1] World Health Organisation (WHO). 20-24 November 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Indonesia". [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2018.9/en/>]. Accessed 8 September 2020.

[2] World Health Organisation (WHO) Indonesia. "Field Epidemiology Training Programmes (FETP)". [<http://www.searo.who.int/indonesia/topics/fetp/en/>]. Accessed 8 September 2020.

[3] Ministry of Health of the Republic of Indonesia. [<http://www.kemkes.go.id/>]. Accessed 8 September 2020.

#### 2.6.1b

Are the available field epidemiology training programs explicitly inclusive of animal health professionals or is there a specific animal health field epidemiology training program offered (such as FETPV)?

Yes = 1 , No = 0

**Current Year Score: 1**

The available field epidemiology training programs explicitly inclusive of animal health professionals; there is also a specific animal health field epidemiology training program (such as FETPV). The Joint External Evaluation (JEE) for Indonesia, conducted in November 2017, indicates that Ministry of Agriculture veterinarians also participate in the country's advanced field epidemiology training and that a specific veterinarian field epidemiology training programme was being developed. [1] With the support of Food and Agriculture Organisation of the United Nations (FAO), Indonesia's Ministry of Agriculture launched a FETPV in May 2017. The FETPV in Indonesia receives financial support from the U.S. Centres for Disease Control and the USAID-FAO ECTAD Indonesia Programme. [2]

[1] World Health Organisation (WHO). 20-24 November 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Indonesia". [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2018.9/en/>]. Accessed 8 September 2020.

[2] Food and Agriculture Organisation of the United Nations (FAO). 23 June 2017. "Government and FAO ECTAD Indonesia Launch FETPV in Indonesia". [<http://www.fao.org/indonesia/news/detail-events/en/c/904242/>]. Accessed 8 September 2020.

## 2.6.2 Epidemiology workforce capacity

### 2.6.2a

**Is there public evidence that the country has at least 1 trained field epidemiologist per 200,000 people?**

Yes = 1 , No = 0

**Current Year Score: 0**

2020

Completed JEE assessments; Economist Impact analyst qualitative assessment based on official national sources, which vary by country

## Category 3: Rapid response to and mitigation of the spread of an epidemic

### 3.1 EMERGENCY PREPAREDNESS AND RESPONSE PLANNING

#### 3.1.1 National public health emergency preparedness and response plan

##### 3.1.1a

**Does the country have an overarching national public health emergency response plan in place which addresses planning for multiple communicable diseases with epidemic or pandemic potential?**

Evidence that there is a plan in place, and the plan is publicly available = 2, Evidence that the plan is in place, but the plan is not publicly available OR, Disease-specific plans are in place, but there is no evidence of an overarching plan = 1, No evidence that such a plan or plans are in place = 0

**Current Year Score: 2**

In Indonesia, there is an overarching national public health emergency response plan in place which addresses planning for multiple communicable diseases with epidemic or pandemic potential and it is publicly available. Health Ministerial Regulation No. 75 Year 2019 on Health Crisis Management is an overarching plan that covers events of significant mortality, including infectious diseases and pandemics. A section outlines mitigation efforts to be taken for the management and eradication of communicable diseases such as: evaluation of surveillance and early warning systems, health education initiatives, and vaccination campaigns for at-risk areas. This regulation also covers guidelines for information systems, organizational structure for reporting and logistics, and general activities to be undertaken during and after the disaster event. [1]

[1] Ministry of Health of the Republic of Indonesia. Regulation No. 75 Year 2019. "Health Crisis Management (Penanggulangan Krisis Kesehatan)".

[[http://hukor.kemkes.go.id/uploads/produk\\_hukum/PMK\\_No\\_\\_75\\_Th\\_2019\\_ttg\\_Penanggulangan\\_Krisis\\_Kesehatan.pdf](http://hukor.kemkes.go.id/uploads/produk_hukum/PMK_No__75_Th_2019_ttg_Penanggulangan_Krisis_Kesehatan.pdf)]. Accessed 8 September 2020.

### 3.1.1b

**If an overarching plan is in place, has it been updated in the last 3 years?**

Yes = 1 , No /no plan in place= 0

**Current Year Score: 1**

The overarching plan from the Ministry of Health has been updated in the last 3 years. Health Ministerial Regulation No. 75 Year 2019 on Health Crisis Management was passed in 2019. [1]

[1] Ministry of Health of the Republic of Indonesia. Regulation No. 75 Year 2019. "Health Crisis Management (Penanggulangan Krisis Kesehatan)".

[[http://hukor.kemkes.go.id/uploads/produk\\_hukum/PMK\\_No\\_\\_75\\_Th\\_2019\\_ttg\\_Penanggulangan\\_Krisis\\_Kesehatan.pdf](http://hukor.kemkes.go.id/uploads/produk_hukum/PMK_No__75_Th_2019_ttg_Penanggulangan_Krisis_Kesehatan.pdf)]. Accessed 8 September 2020.

### 3.1.1c

**If an overarching plan is in place, does it include considerations for pediatric and/or other vulnerable populations?**

Yes = 1 , No /no plan in place= 0

**Current Year Score: 1**

There is evidence that the overarching plan includes considerations for pediatric and other vulnerable populations. Health Ministerial Regulation No. 75 Year 2019 on Health Crisis Management includes special prioritization and care for vulnerable groups. Vulnerable groups include: babies and children, pregnant and breastfeeding mothers, people with disabilities, the elderly, and those with chronic illness. Physical infrastructure considerations are also mentioned for vulnerable groups, including those with disabilities. [1] There is no additional evidence on the websites of the Ministry of Health, or the National Disaster Management Authority. [2, 3]

[1] Ministry of Health of the Republic of Indonesia. Regulation No. 75 Year 2019. "Health Crisis Management (Penanggulangan Krisis Kesehatan)".

[[http://hukor.kemkes.go.id/uploads/produk\\_hukum/PMK\\_No\\_\\_75\\_Th\\_2019\\_ttg\\_Penanggulangan\\_Krisis\\_Kesehatan.pdf](http://hukor.kemkes.go.id/uploads/produk_hukum/PMK_No__75_Th_2019_ttg_Penanggulangan_Krisis_Kesehatan.pdf)]. Accessed 8 September 2020.

[2] Ministry of Health of the Republic of Indonesia. [<https://www.kemkes.go.id/>]. Accessed 20 October 2020.

[3] National Disaster Management Authority of the Republic of Indonesia. [<https://www.bnpb.go.id/>]. Accessed 20



October 2020.

### 3.1.1d

**Does the country have a publicly available plan in place specifically for pandemic influenza preparedness that has been updated since 2009?**

Yes = 1 , No = 0

**Current Year Score: 0**

2020

WHO Strategic Partnership for IHR and Health Security (SPH)

## 3.1.2 Private sector involvement in response planning

### 3.1.2a

**Does the country have a specific mechanism(s) for engaging with the private sector to assist with outbreak emergency preparedness and response?**

Yes = 1 , No = 0

**Current Year Score: 0**

There is no publicly available evidence that Indonesia has a specific mechanism for engaging with the private sector to assist with outbreak emergency preparedness and response. The Joint External Evaluation for Indonesia conducted in November 2017 does not mention any private sector engagement mechanisms. [1] There is no information about a mechanism for engaging the private sector during public emergencies available on the websites of Ministry of Health, National Institute for Health Research and Development (NIHRD), and National Disaster Management Authority (BNPB). [2, 3, 4] BNPB's "Guideline on the Role of the International Organisations and Foreign Non-Government Organisations during Emergency Response" and "National Plan of Disaster Management 2015-2019" do not mention private sector engagement. [5, 6] A 2014 study by the Overseas Development Institute identified some examples of the private sector in Indonesia engaging in humanitarian action, but noted the existence of many barriers to engagement. [7]

[1] World Health Organisation (WHO). 20-24 November 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Indonesia". [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2018.9/en/>]. Accessed 8 September 2020.

[2] Ministry of Health of the Republic of Indonesia. [<http://www.kemkes.go.id/>]. Accessed 31 December 2018.

[3] National Institute for Health Research and Development (NIHRD). [<https://www.litbang.kemkes.go.id/>]. Accessed 8 September 2020.

[4] National Disaster Management Authority (BNPB). [<https://bnpb.go.id/>]. Accessed 8 September 2020.

[5] National Agency for Disaster Management (BNPB). "Guideline on the Role of the International Organisations and Foreign Non-Government Organisations during Emergency Response". [<https://www.ifrc.org/docs/idrl/877EN.pdf>]. Accessed 8 September 2020.

[6] National Agency for Disaster Management (BNPB). "National Plan of Disaster Management 2015-2019 (Rencana Nasional Penanggulangan Bencana 2015-2019)". [<https://bnpb.go.id/uploads/24/buku-renas-pb.pdf>]. Accessed 8 September 2020.

[7] Burke, Joanne and Lilianne Fan. February 2014. "Humanitarian crises, emergency preparedness and response: the role of business and the private sector: Indonesia case study". Overseas Development Institute (ODI).

[<https://www.odi.org/publications/8227-humanitarian-crises-emergency-preparedness-and-response-role-business-and->

private-sector-indonesia]. Accessed 8 September 2020.

### 3.1.3 Non-pharmaceutical interventions planning

#### 3.1.3a

**Does the country have a policy, plan and/or guidelines in place to implement non-pharmaceutical interventions (NPIs) during an epidemic or pandemic?**

Yes, a policy, plan and/or guidelines are in place for more than one disease = 2, Yes, but the policy, plan and/or guidelines exist only for one disease = 1, No = 0

**Current Year Score: 2**

Indonesia has policies in place to implement non-pharmaceutical interventions (NPIs) during an epidemic or pandemic for more than one disease. Law No. 6 Year 2018 on Health Quarantine covers quarantine procedures and guidelines that could be taken during or to prevent a public health emergency. This includes large-scale social restrictions (Pembatasan Sosial Skala Besar) that cover closing of schools and offices, restrictions of religious activities and public spaces, along with restrictions for air, ground, and sea travel between regional and international borders. A public health emergency is defined in this Law as a public health event of extraordinary nature “with the incidence of infectious diseases” that cause health hazards and has the potential to spread across regions or countries. Criteria for the implementation of large-scale restrictions include: a “significant” total of cases or deaths as a result of the infectious disease, that is epidemiologic in nature and found in other regions or countries. The determination of a public health emergency rests with the central government and can be made only after identifying the type of infection and risk factors associated. [1]

Presidential Decree No. 11 Year 2020 on the Declaration of Public Health Emergency Corona Virus Disease 2019 (COVID-19) [2] officially declares the COVID-19 pandemic as a public health emergency and triggers the ability for government to take NPIs listed in Law no. 6 Year 2018. [2] This ability to take NPIs in the form of large scale restrictions is further affirmed through Government Regulation No. 21 Year 2020 on Large Scale Social Restrictions for the Accelerated Management of Corona Virus Disease 2020 (COVID-19). [3]

[1] Republic of Indonesia. Law No. 6 Year 2018. “Health Quarantine (Kekarantinaan Kesehatan)”.

[<https://sipuu.setkab.go.id/PUUdoc/175564/UU%20Nomor%206%20Tahun%202018.pdf>]. Accessed 8 September 2020.

[2] President of the Republic of Indonesia. Presidential Decree No. 11 Year 2020. “Declaration of Corona Virus Disease 2019 (COVID-19) Public Health Emergency (Penetapan Kedaruratan Kesehatan Masyarakat Corona Virus Disease 2019 (COVID-19)). [<https://hukumonline.com/pusatdata/detail/lt5e83feade16df/node/534/keputusan-presiden-nomor-11-tahun-2020>]. Accessed 8 September 2020.

[3] President of the Republic of Indonesia. Regulation No. 21 Year 2020. “Large-Scale Social Restriction in the Accelerated Framework for Corona Virus Disease 2019 (COVID-19) Management (Pembatasan Sosial Berskala Besar Dalam Rangka Percepatan Penanganan Corona Virus Disease 2019 (COVID-19))”.

[[https://jdih.setkab.go.id/PUUdoc/176085/PP\\_Nomor\\_21\\_Tahun\\_2020.pdf](https://jdih.setkab.go.id/PUUdoc/176085/PP_Nomor_21_Tahun_2020.pdf)]. Accessed 8 September 2020.

## 3.2 EXERCISING RESPONSE PLANS

### 3.2.1 Activating response plans

#### 3.2.1a

**Does the country meet one of the following criteria?**

- Is there evidence that the country has activated their national emergency response plan for an infectious disease outbreak

in the past year?

- Is there evidence that the country has completed a national-level biological threat-focused exercise (either with WHO or separately) in the past year?

Needs to meet at least one of the criteria to be scored a 1 on this measure. , Yes for both = 1 , Yes for one = 1 , No for both = 0

**Current Year Score: 1**

Indonesia has activated their national emergency response plan for an infectious disease outbreak in the past year but has not completed a national-level biological threat-focused exercise with the WHO in the past year. Presidential Decree No. 12 Year 2020 declares Corona Virus Disease 2019 (COVID-19) as a non-natural disaster, and as a national disaster. [1] This automatically triggers the national emergency response plan in the form Law No. 24 Year 2007 on Disaster Management. [2] Presidential Decree No. 11 Year 2020 on the Declaration of Public Health Emergency Corona Virus Disease 2019 (COVID-19) [3] officially declares the COVID-19 pandemic as a public health emergency and triggers the ability for government to take NPIs listed in Law no. 6 Year 2018 on Health Quarantine, and Health Ministerial Regulation No. 75 Year 2019 on Health Crisis Management. [4,5] There is no evidence that the country has completed a national-level biological threat-focused exercise with the WHO in the past year. The latest evidence of such exercise is from 2017. On 18-20 September 2017, Indonesia conducted a full-scale simulation exercise based on a H7N9 virus, which covered all components of pandemic risk management. The exercise took place in South Tangerang Municipality of Banten Province. [6]

[1] President of the Republic of Indonesia. Presidential Decree No. 11 Year 2020. "Declaration of Corona Virus Disease 2019 (COVID-19) Public Health Emergency (Penetapan Kedaruratan Kesehatan Masyarakat Corona Virus Disease 2019 (COVID-19)). [<https://hukumonline.com/pusatdata/detail/lt5e83feade16df/node/534/keputusan-presiden-nomor-11-tahun-2020>]. Accessed 8 September 2020.

[2] Republic of Indonesia. Law No. 24 Year 2007. "Disaster Management (Penanggulangan Bencana)". [[https://bnpb.go.id/ppid/file/UU\\_24\\_2007.pdf](https://bnpb.go.id/ppid/file/UU_24_2007.pdf)]. Accessed 8 September 2020.

[3] President of the Republic of Indonesia. Presidential Decree No. 11 Year 2020. "Declaration of Corona Virus Disease 2019 (COVID-19) Public Health Emergency (Penetapan Kedaruratan Kesehatan Masyarakat Corona Virus Disease 2019 (COVID-19)). [<https://hukumonline.com/pusatdata/detail/lt5e83feade16df/node/534/keputusan-presiden-nomor-11-tahun-2020>]. Accessed 8 September 2020.

[4] Republic of Indonesia. Law No. 6 Year 2018. "Health Quarantine (Kekarantinaan Kesehatan)". [<https://sipuu.setkab.go.id/PUUdoc/175564/UU%20Nomor%206%20Tahun%202018.pdf>]. Accessed 8 September 2020.

[5] Ministry of Health of the Republic of Indonesia. Regulation No. 75 Year 2019. "Health Crisis Management (Penanggulangan Krisis Kesehatan)". [[http://hukor.kemkes.go.id/uploads/produk\\_hukum/PMK\\_No\\_\\_75\\_Th\\_2019\\_ttg\\_Penanggulangan\\_Krisis\\_Kesehatan.pdf](http://hukor.kemkes.go.id/uploads/produk_hukum/PMK_No__75_Th_2019_ttg_Penanggulangan_Krisis_Kesehatan.pdf)]. Accessed 8 September 2020.

[6] World Health Organisation (WHO) Strategic Partnership Portal. "Simulation Exercise". [<https://extranet.who.int/spp/simulation-exercise>]. Accessed 8 September 2020.

### 3.2.1b

Is there evidence that the country in the past year has identified a list of gaps and best practices in response (either through an infectious disease response or a biological-threat focused exercise) and developed a plan to improve response capabilities?

Yes, the country has developed and published a plan to improve response capacity = 2 , Yes, the country has developed a plan to improve response capacity, but has not published the plan = 1 , No = 0

**Current Year Score: 0**

There is no evidence that the country in the past year has identified a list of gaps and best practices in response to an infectious disease or biological-threat focused exercise and developed a plan to improve response capabilities. From 18-20 September 2017, Indonesia conducted a full-scale simulation exercise based on a H7N9 virus, which covered all components of pandemic risk management. The exercise took place in South Tangerang Municipality of Banten Province. [1] There is no evidence of a report resulting from that simulation exercise to identify a list of gaps and best practices for the country on the websites of the WHO, Ministry of Health, National Institute of Health Research and Development, and National Disaster Management Authority. [1, 2, 3, 4] There is no evidence on the World Health Organisation (WHO) Strategic Partnership Portal that Indonesia has conducted an after-action review.

[1] World Health Organisation (WHO) Strategic Partnership Portal. "Simulation Exercise:."

[https://extranet.who.int/spp/simulation-exercise]. Accessed 8 September 2020.

[2] Ministry of Health of the Republic of Indonesia. [http://www.kemkes.go.id/]. Accessed 8 September 2020.

[3] National Institute of Health Research and Development. [www.litbang.kemkes.go.id]. Accessed 8 September 2020.

[4] National Disaster Management Authority (BNPB). [https://bnpb.go.id/]. Accessed 8 September 2020.

[5] World Health Organisation (WHO) Strategic Partnership Portal. "After Action Review". [https://extranet.who.int/sph/after-action-review]. Accessed 8 September 2020.

## 3.2.2 Private sector engagement in exercises

### 3.2.2a

**Is there evidence that the country in the past year has undergone a national-level biological threat-focused exercise that has included private sector representatives?**

Yes = 1 , No = 0

**Current Year Score: 0**

There is no evidence that the country in the past year has undergone a national-level biological threat-focused exercise that has included private sector representatives. The latest evidence of such exercise is from 2017. On 18-20 September 2017, Indonesia conducted a full-scale simulation exercise based on a H7N9 virus, which covered all components of pandemic risk management. The exercise took place in South Tangerang Municipality of Banten Province. [1] There is no evidence that private sector representatives were involved on the websites of the WHO, Ministry of Health, National Institute of Health Research and Development, and National Disaster Management Authority. [1, 2, 3, 4]

[1] World Health Organisation (WHO) Strategic Partnership Portal. "Simulation Exercise:."

[https://extranet.who.int/spp/simulation-exercise]. Accessed 8 September 2020.

[2] Ministry of Health of the Republic of Indonesia. [http://www.kemkes.go.id/]. Accessed 8 September 2020.

[3] National Institute of Health Research and Development. [www.litbang.kemkes.go.id]. Accessed 8 September 2020.

[4] National Disaster Management Authority (BNPB). [https://bnpb.go.id/]. Accessed 8 September 2020.

[5] World Health Organisation (WHO) Strategic Partnership Portal. "After Action Review". [https://extranet.who.int/sph/after-action-review]. Accessed 8 September 2020.

## 3.3 EMERGENCY RESPONSE OPERATION

### 3.3.1 Emergency response operation

#### 3.3.1a

**Does the country have in place an Emergency Operations Center (EOC)?**

Yes = 1 , No = 0

**Current Year Score: 1**

Indonesia has in place an Emergency Operations Center (EOC). The Joint External Evaluation for Indonesia from November 2017 states that Indonesia's public health EOC is housed within the Ministry of Health. The EOC is "coordinated by the Centre for Health Crisis (the EOC Crisis Centre), with the support of two EOC sub-clusters: the Public Health Emergency Operations Centre (PHEOC) and the National Command Centre (NCC)." [1]

[1] World Health Organisation (WHO). 20-24 November 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Indonesia". [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2018.9/en/>]. Accessed 8 September 2020.

### 3.3.1b

**Is the Emergency Operations Center (EOC) required to conduct a drill for a public health emergency scenario at least once per year or is there evidence that they conduct a drill at least once per year?**

Yes = 1 , No = 0

**Current Year Score: 0**

There is insufficient public evidence that the Emergency Operations Center (EOC) is required to conduct a drill at least once per year or evidence that they conduct a drill at least once per year. The Joint External Evaluation (JEE) for Indonesia from November 2017 states that the EOC conducts functional exercises as well as simulations and that there are typically at least one or two large disasters a year that require national EOC activation. However, the JEE does not mention whether the EOC is required to conduct a drill at least once per year. [1] There is evidence that the National Disaster Management Authority (BNPB) organizes and/or coordinates training and simulation programs based on published guides and press releases on their website but there is no evidence of these being regularly conducted. [2, 3] Further, there is no mention on the annual reports or the websites of the Ministry of Health and BNPB that the EOC is required to conduct a drill at least once per year. [4, 5]

[1] World Health Organisation (WHO). 20-24 November 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Indonesia". [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2018.9/en/>]. Accessed 8 September 2020.

[2] National Disaster Management Authority (BNPB). 5 February 2018. "Disaster Management Training Simulations (Pelatihan Simulator Penanganan Darurat - BNPB)". [<https://bnpb.go.id/berita/pelatihan-simulator-penanganan-darurat-bnpb>]. Accessed 8 September 2020.

[3] National Disaster Management Authority (BNPB). Regulation No. 14 Year 2009. "General Guide for Disaster Management Training Implementation (Pedoman Umum Penyelenggaraan Pelatihan Penanggulangan Bencana)". [<http://ditjenpp.kemkumham.go.id/arsip/bn/2014/bn1415-2014.pdf>]. Accessed 8 September 2020.

[4] Ministry of Health of the Republic of Indonesia. [<http://www.kemkes.go.id/>]. Accessed 8 September 2020.

[5] National Disaster Management Authority (BNPB). [<https://bnpb.go.id/>]. Accessed 8 September 2020.

### 3.3.1c

**Is there public evidence to show that the Emergency Operations Center (EOC) has conducted within the last year a coordinated emergency response or emergency response exercise activated within 120 minutes of the identification of the public health emergency/scenario?**

Yes = 1 , No = 0

**Current Year Score: 0**

There is insufficient public evidence to show that the EOC has conducted within the last year, a coordinated emergency response or emergency response exercise activated within 120 minutes of the identification of the public health emergency/scenario. The Joint External Evaluation for Indonesia from November 2017 notes that there are at least one or two large disasters that require national EOC activation each year and further, that "a coordinated emergency response can be activated within 120 minutes, especially for natural disasters." [1] The National Disaster Management Authority conducted remote training exercises for district-level EOC staff from 22-24 April 2020 on COVID-19 management but there is no information as to whether they covered emergency response procedures to be activated within 120 minutes of a public health emergency scenario. [2] There is no further information available on this topic on the websites of the Ministry of Health and the National Disaster Management Authority. [3,4]

[1] World Health Organisation (WHO). 20-24 November 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Indonesia". [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2018.9/en/>]. Accessed 25 November 2018.

[2] National Disaster Management Authority (BNPB) of the Republic of Indonesia. "COVID-19 Disaster Management Remote Training for BPBD Western Indonesia Region (Pelatihan Jarak Jauh Manajemen Bencana COVID - 19 untuk BPBD Wilayah Indonesia Bagian Barat)". [<https://bnpb.go.id/berita/pelatihan-jarak-jauh-manajemen-bencana-covid-19-untuk-bpbd-wilayah-indonesia-bagian-barat>]. Accessed 8 October 2020.

[3] Ministry of Health of the Republic of Indonesia. [<http://www.kemkes.go.id/>]. Accessed 8 September 2020.

[4] National Disaster Management Authority (BNPB) of the Republic of Indonesia. [<https://bnpb.go.id/>]. Accessed 8 September 2020.

## 3.4 LINKING PUBLIC HEALTH AND SECURITY AUTHORITIES

### 3.4.1 Public health and security authorities are linked for rapid response during a biological event

#### 3.4.1a

Does the country meet one of the following criteria?

- Is there public evidence that public health and national security authorities have carried out an exercise to respond to a potential deliberate biological event (i.e., bioterrorism attack)?
- Are there publicly available standard operating procedures, guidelines, memorandums of understanding (MOUs), or other agreements between the public health and security authorities to respond to a potential deliberate biological event (i.e., bioterrorism attack)?

Needs to meet at least one of the criteria to be scored a 1 on this measure., Yes for both = 1, Yes for one = 1, No for both = 0

**Current Year Score: 1**

There is public evidence that Indonesia's public health and national security authorities have carried out an exercise to respond to a potential deliberate biological event (i.e. bioterrorism attack), and there are publicly available standard operating procedures, guidelines, MOUs or other agreements between the public health and security authorities to respond to a potential deliberate biological event (i.e. bioterrorism attack). The Joint External Evaluation (JEE) for Indonesia from November 2017 indicates that Indonesia has conducted a number of simulations of public health emergency countermeasures of chemicals, biology, radioactive, nuclear and explosives (CBRN) terrorism countermeasures, including a pandemic influenza epicentre countermeasure simulation in 2017. The JEE notes that there exist standard operating procedures for countermeasures to CBRN terrorism between the National Agency for Combating Terrorism (BNPT), the armed forces and the Ministry of Health. [1] The JEE references two relevant and publicly accessible documents: Presidential Regulation No. 46 Year 2010 on the National Agency for BNPT and National Agency for Combating Terrorism Regulation No. PER-07/K.BNPT/11/2013 on the Implementation of Standard Operational Procedures of Government Administration (SOPAP)

for Terrorism Countermeasures using CBRN. [1, 2, 3]

[1] World Health Organisation (WHO). 20-24 November 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Indonesia". [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2018.9/en/>]. Accessed 8 September 2020.

[2] President of the Republic of Indonesia. "National Agency for Combating Terrorism (Peraturan Presiden No. 46 Tahun 2010 tentang Badan Nasional Penanggulangan Terorisme)". [<https://peraturan.bpk.go.id/Home/Details/41087/perpres-no-46-tahun-2010>]. Accessed 8 September 2020.

[3] National Agency for Combating Terrorism (BNPT). Regulation No. PER-07/K.BNPT/11/2013. "Implementation of Standard Operational Procedures of Government Administration (SOPAP) for Terrorism Countermeasures using CBRN (Pemberlakuan Standar Operasional Prosedur Administrasi Pemerintahan (SOPAP) Penanggulangan Kondisi Krisis Serangan Terorisme yang Menggunakan KBRN)". [<http://ditjenpp.kemkumham.go.id/arsip/bn/2013/bn1380-2013.pdf>]. Accessed 8 September 2020.

## 3.5 RISK COMMUNICATIONS

### 3.5.1 Public communication

#### 3.5.1b

**Does the risk communication plan (or other legislation, regulation or strategy document used to guide national public health response) outline how messages will reach populations and sectors with different communications needs (eg different languages, location within the country, media reach)?**

Yes = 1, No = 0

**Current Year Score: 0**

There is no evidence that Indonesia has a strategy or legislation to guide how messages will reach populations and sectors with different communications needs (e.g. different languages, location within country, media reach, etc.) The Joint External Evaluation (JEE) for Indonesia from November 2017 states there is strong government commitment to risk communication. The country's "current capabilities include cross-ministry/agency/sector mechanisms for informing (and listening to) the public and international agencies through various channels including social media; regular briefings with media; and engagement with communities to understand and incorporate local perspectives." The JEE also notes that each ministry/agency has their own department to handle communications (risk and public communication), and have "skilled and trained personnel and spokespeople for risk and crisis communication at a national level." However, the JEE does not mention guidance for how messages will reach populations and sectors with different communications needs. [1] The National Disaster Management Authority (BNPB)'s National Plan of Disaster Management 2015-2019 contains protocols for risk communication, but does not mention plans for reaching populations and sectors with different communications needs. [2] BNPB Regulation No. 8 Year 2013 indicates that the Media Centre for Disaster Response communicates with the public through multiple channels, e.g. print and online news, call center, press conferences. However, there is no mention of a plan for how messages will reach populations and sectors with different communication needs. [3] There is no additional information on this topic on the websites of the Ministry of Health, the National Institute for Health Research and Development, Ministry of Communication and Informatics, and National Disaster Management Authority. [4,5,6,7]

[1] World Health Organisation (WHO). 20-24 November 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Indonesia". [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2018.9/en/>]. Accessed 8 September 2020.

[2] National Disaster Management Authority (BNPB). "National Plan of Disaster Management 2015-2019 (Rencana Nasional Penanggulangan Bencana 2015-2019)". [<https://bnpb.go.id/uploads/24/buku-renas-pb.pdf>]. Accessed 8 September 2020.

[3] National Disaster Management Authority (BNPB). Regulation No. 8/2013. "Guidelines for Media Centre for Disaster Response (Pedoman Media Center Tanggap Darurat Bencana)".

[<https://bnpb.go.id/uploads/regulation/1079/Perka%208%20Tahun%202013.pdf>]. Accessed 8 September 2020.

[4] Ministry of Health of the Republic of Indonesia. [<http://www.kemkes.go.id/>]. Accessed 8 September 2020.

[5] National Institute of Health Research and Development. [[www.litbang.kemkes.go.id](http://www.litbang.kemkes.go.id/)]. Accessed 8 September 2020.

[6] Ministry of Communication and Informatics of the Republic of Indonesia. [<https://www.kominfo.go.id/>]. Accessed 8 October 2020.

[7] National Disaster Management Authority (BNPB) of the Republic of Indonesia. [<https://bnpb.go.id/>]. Accessed 8 September 2020.

### 3.5.1 Risk communication planning

#### 3.5.1a

**Does the country have in place, either in the national public health emergency response plan or in other legislation, regulation, or strategy documents, a section detailing a risk communication plan that is specifically intended for use during a public health emergency?**

Yes = 1 , No = 0

**Current Year Score: 1**

Indonesia has in place both a national public health emergency response plan and regulations that include risk communication plans that is specifically intended for use during a public health emergency. The Joint External Evaluation (JEE) for Indonesia from November 2017 indicates that the National Disaster Management Authority (BNPB) has a multi-hazard national health emergency plan (National Plan of Disaster Management 2015-2019) that contains plans and protocols for risk communication. [1, 2] Additionally, the JEE mentions that there are various laws and regulations for emergency response that also include risk communication provisions. For example, BNPB Regulation No. 8 Year 2013 pertains to guidelines for the Media Centre for Disaster Response. The Media Centre for Disaster Response is charged with communicating with the public through multiple channels, e.g. print and online news, call center, press conferences, etc. BNPB Regulation No. 8 Year 2013 is relevant for emergencies in general and does not specifically mention public health emergencies. [1, 3] The Ministry of Health (MOH) is responsible for risk communication during public health emergencies. Within the MOH, the Bureau of Communications and Public Service, Directorate of Health Promotion and Community Empowerment, Centre for Health Crisis has a dedicated communication team for media relations and social media outreach. [1]

[1] World Health Organisation (WHO). 20-24 November 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Indonesia". [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2018.9/en/>]. Accessed 8 September 2020.

[2] National Disaster Management Authority (BNPB). "National Plan of Disaster Management 2015-2019 (Rencana Nasional Penanggulangan Bencana 2015-2019)". [<https://bnpb.go.id/uploads/24/buku-renas-pb.pdf>]. Accessed 8 September 2020.

[3] National Disaster Management Authority (BNPB). Regulation No. 8/2013. "Guidelines for Media Centre for Disaster Response (Pedoman Media Center Tanggap Darurat Bencana)". [<https://bnpb.go.id/uploads/regulation/1079/Perka%208%20Tahun%202013.pdf>]. Accessed 8 September 2020.

#### 3.5.1c

**Does the risk communication plan (or other legislation, regulation or strategy document used to guide national public health response) designate a specific position within the government to serve as the primary spokesperson to the public during a public health emergency?**

Yes = 1 , No = 0



**Current Year Score: 0**

The risk communication plan does not designate a specific position within the government to serve as the primary spokesperson to the public during a public health emergency. National Disaster Management Authority's BNPB Regulation No. 8 Year 2013 pertains to guidelines for the Media Centre for Disaster Response. The Media Centre for Disaster Response is charged with communicating with the public through multiple channels, e.g. print and online news, call center, press conferences, etc. Although the regulation outlines the organizational structure, it does not designate a specific spokesperson to the public in the event of a public health emergency. [1] The JEE notes that each ministry/agency has a department "to handle communication (risk and public communication) and skilled and trained personnel and spokespeople for risk and crisis communication at a national level." [2]

During the COVID-19 pandemic, the President of Indonesia appointed an official spokesperson for COVID-19 communication to the public. Directorate-General of Illness Mitigation and Management from the Ministry of Health, Achmad Yurianto was appointed as the COVID-19 spokesperson on March 3, 2020, one day after a publicly announced confirmed case of COVID-19 in Indonesia. [2] On July 21, 2020 Achmad Yurianto was replaced by Wiku Adisasmito, Team Leader of the Accelerated Management of Covid-19 Task Force. [3] However, there is insufficient evidence to suggest that these appointments were made due to a stipulation in a more general disaster or public health emergency plan or regulation.

[1] National Disaster Management Authority (BNPB). Regulation No. 8/2013. "Guidelines for Media Centre for Disaster Response (Pedoman Media Center Tanggap Darurat Bencana)".

[<https://bnpb.go.id/uploads/regulation/1079/Perka%208%20Tahun%202013.pdf>]. Accessed 8 September 2020.

[2] World Health Organisation (WHO). 20-24 November 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Indonesia". [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2018.9/en/>]. Accessed 8 September 2020.

[3] Detik. "The Journey of Achmad Yurianto's who is no Longer the Spokesperson for COVID-19 (Perjalanan Achmad Yurianto yang Tak Lagi Jadi Jubir COVID-19)". [<https://nasional.kompas.com/read/2020/07/21/15065971/tak-lagi-jadi-jubir-penanganan-covid-19-yurianto-saya-fokus-di-p2p-kemenkes>]. Accessed 8 September 2020.

[4] Kompas. "No longer the spokesperson for COVID-19 Management, Yurianto: I will focus on the Mitigation and Management of Diseases in the Ministry of Health (Tak Lagi Jadi Jubir Penanganan Covid-19, Yurianto: Saya Fokus di P2P Kemenkes)". [<https://nasional.kompas.com/read/2020/07/21/15065971/tak-lagi-jadi-jubir-penanganan-covid-19-yurianto-saya-fokus-di-p2p-kemenkes>]. Accessed 8 September 2020.

## 3.5.2 Public communication

### 3.5.2a

**In the past year, is there evidence that the public health system has actively shared messages via online media platforms (e.g. social media, website) to inform the public about ongoing public health concerns and/or dispel rumors, misinformation or disinformation?**

Public health system regularly shares information on health concerns = 2, Public health system shares information only during active emergencies, but does not regularly utilize online media platforms = 1, Public health system does not regularly utilize online media platforms, either during emergencies or otherwise = 0

**Current Year Score: 2**

There is evidence in the past year that the Indonesian government utilized media platforms (social media, website updates, etc.) to inform the public about ongoing public health concerns and to dispel rumors, misinformation or disinformation.

For the COVID-19 pandemic, the Accelerated Task force for COVID-19 management has created a website that actively

shares relevant news and data regarding COVID-19. On this government website, there is a page titled "Hoax Buster" that is updated frequently with posts dispelling recent popularized rumors, misinformation or disinformation shared on social media. [1,2] The Directorate of Health Promotion and Community Empowerment also has a website and Instagram account that is active in posting educational information regarding the COVID-19 pandemic and new protocols. [3,4]

There is also evidence that the public health system regularly shares information on health concerns, outside of active emergencies. The Directorate of Health Promotion and Community Empowerment has a media publications page with media packets that is shared on social media platforms. [5] The Ministry of Health's Emerging Infections website has weekly updates on the status of emerging infections of concern such as MERS, Ebola, Lassa fever, and different strains of Avian Influenza. [6] The Ministry of Health (MOH) website has, immediately under the header, a section similar to a news ticker that displays topical health-related headlines with links to more detailed information. [7] The MOH's "Guidelines on Information Posts for Management of Health Crises" provide a list of government, media, and international organisation websites on which the public can access information related to health crises. However, this document also makes the point to emphasize radio communication because internet access may be disrupted during disaster situations. [8] The Joint External Evaluation (JEE) for Indonesia from November 2017 notes that the country "aims to achieve coherent, fast and credible communication for public health risks and emergencies. Current capabilities include cross-ministry/agency/sector mechanisms for informing (and listening to) the public and international agencies through various channels including social media; regular briefings with media; and engagement with communities to understand and incorporate local perspectives." [9] The Ministry of Health and National Disaster Management Authority (BNPB) both have Twitter accounts that provide information about current events relevant to health, disasters, and emergencies. [10,11]

[1] COVID-19 Management Task Force of the Republic of Indonesia. [<https://covid19.go.id/>]. Accessed 8 September 2020.

[2] COVID-19 Management Task Force of the Republic of Indonesia. "Hoax Buster". [<https://covid19.go.id/p/hoax-buster/>]. Accessed 8 October 2020.

[3] Directorate for Health Promotion and Community Empowerment of the Ministry of Health of the Republic of Indonesia. Instagram Account. [<https://www.instagram.com/dit.promkes/>]. Accessed 8 September 2020.

[4] Directorate for Health Promotion and Community Empowerment of the Ministry of Health of the Republic of Indonesia. [<http://promkes.kemkes.go.id/home>]. Accessed 8 September 2020.

[5] Directorate for Health Promotion and Community Empowerment of the Ministry of Health of the Republic of Indonesia. "Media Publications (Media Publikasi)". [<http://promkes.kemkes.go.id/category/media-publikasi/1>]. Accessed 8 September 2020.

[6] Ministry of Health of the Republic of Indonesia. "Emerging Infections (Infeksi Emerging)". [<https://infeksiemerging.kemkes.go.id/>]. Accessed 8 September 2020.

[7] Ministry of Health of the Republic of Indonesia. [<http://www.kemkes.go.id/>]. Accessed 8 September 2020.

[8] Ministry of Health of the Republic of Indonesia. "Guidelines on Information Posts for Management of Health Crises (Pedoman Pos Informasi Penanggulangan Krisis Kesehatan Akibat Bencana)". [[http://www.kemkes.go.id/resources/download/penanganan-krisis/pedoman\\_pos\\_informasi.pdf](http://www.kemkes.go.id/resources/download/penanganan-krisis/pedoman_pos_informasi.pdf)]. Accessed 8 September 2020.

[9] World Health Organisation (WHO). 20-24 November 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Indonesia". [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2018.9/en/>]. Accessed 8 September 2020.

[10] Ministry of Health of the Republic of Indonesia. Twitter Account. [<https://twitter.com/kemenkesri?lang=en>]. Accessed 8 September 2020.

[11] National Disaster Management Authority (BNPB). Twitter Account.

[[https://twitter.com/BNPB\\_Indonesia?ref\\_src=twsrc%5Egoogle%7Ctwcamp%5Eserp%7Ctwgr%5Eauthor](https://twitter.com/BNPB_Indonesia?ref_src=twsrc%5Egoogle%7Ctwcamp%5Eserp%7Ctwgr%5Eauthor)]. Accessed 8 September 2020.

### 3.5.2b

**Is there evidence that senior leaders (president or ministers) have shared misinformation or disinformation on infectious diseases in the past two years?**

No = 1, Yes = 0

**Current Year Score: 0**

There are several instances that senior leaders have shared misinformation or disinformation on infectious diseases in the past two years.

Health Minister Terawan Agus Purtranto made a statement on February 12, 2020 that Indonesia did not have a single confirmed case of the novel coronavirus because of the nation's prayers. [1] On February 26, 2020 The Vice President of Indonesia, Ma'ruf Amin made a similar statement that it is due to the prayers of religious scholars that Indonesia was not affected by the novel coronavirus. [2] On July 3, 2020 The Agriculture Minister, Syahrul Yasin Limp, claimed that the agriculture ministry developed an aromatherapy eucalyptus necklace that could kill the novel coronavirus. [3] On July 15, 2020 The Health Minister, Terawan Agus Putranto, said that the reason only 5% of the COVID-19 management budget was used was due Indonesia having a small number of patients, which is contradictory to the Ministry of Health data which showed 1,522 new confirmed cases, bringing the total to 80,094 confirmed cases at the national scale [4,5].

[1] Republika. 15 February 2020. "Indonesians immune to the coronavirus, Ministry of Health: Because of Prayer (WNI Kebal Virus Corona, Menkes: Karena Doa)". [<https://republika.co.id/berita/q5qtri349/wni-kebal-virus-corona-menkes-karena-doa>]. Accessed 8 September 2020.

[2] Maranda, Servio. 27 February 2020. "Indonesia avoids the Coronavirus, Ma'ruf Amin: It's the Blessing of Kunut Prayers (Indonesia Terhindar Virus Corona, Ma'ruf Amin: Berkah Doa Qunut)". [<https://bisnis.tempo.co/read/1312785/indonesia-terhindar-virus-corona-maruf-amin-berkah-doa-qunut>]. Accessed 8 September 2020.

[3] Ratcliffe, Rebecca. 7 July 2020. "Indonesia minister in row over eucalyptus necklace Covid-19 claim". [<https://www.theguardian.com/world/2020/jul/07/indonesia-minister-in-row-over-eucalyptus-necklace-covid-19-claim>]. Accessed 8 September 2020.

[4] Pangandaran. "Almost 80 thousand people confirmed, Health Minister Terawan Says Covid-19 Patient Numbers are still Low? (Hampir 80 Ribu Orang Terkonfirmasi, Menkes Terawan Sebut Pasien Covid-19 Masih Sedikit?)". [<https://pangandaran.pikiran-rakyat.com/nasional/pr-10598455/hampir-80-ribu-orang-terkonfirmasi-menkes-terawan-sebut-pasien-covid-19-masih-sedikit>]. Accessed 8 September 2020.

[5] Nugraha, Ricky. 15 July 2020. "COVID-19 Update: 1,522 New Cases Per July 15". [<https://en.tempo.co/read/1365591/covid-19-update-1522-new-cases-per-july-15>]. Accessed 8 September 2020.

## 3.6 ACCESS TO COMMUNICATIONS INFRASTRUCTURE

### 3.6.1 Internet users

#### 3.6.1a

**Percentage of households with Internet**

Input number

**Current Year Score: 47.69**

2019

International Telecommunication Union (ITU)

### 3.6.2 Mobile subscribers

#### 3.6.2a

Mobile-cellular telephone subscriptions per 100 inhabitants

Input number

Current Year Score: 127.49

2019

International Telecommunication Union (ITU)

### 3.6.3 Female access to a mobile phone

#### 3.6.3a

Percentage point gap between males and females whose home has access to a mobile phone

Input number

Current Year Score: 7.0

2019

Gallup; Economist Impact calculation

### 3.6.4 Female access to the Internet

#### 3.6.4a

Percentage point gap between males and females whose home has access to the Internet

Input number

Current Year Score: 5.0

2019

Gallup; Economist Impact calculation

## 3.7 TRADE AND TRAVEL RESTRICTIONS

### 3.7.1 Trade restrictions

#### 3.7.1a

In the past year, has the country issued a restriction, without international/bilateral support, on the export/import of medical goods (e.g. medicines, oxygen, medical supplies, PPE) due to an infectious disease outbreak?

Yes = 0, No = 1

Current Year Score: 0

In the past year, Indonesia has issued a restriction without international/bilateral support, on the export/import of medical goods due to an infectious disease outbreak. Commerce Ministerial Regulation No. 34 Year 2020 placed temporary

restrictions on the exportation of antiseptic, materials for masks, personal protective equipment (PPE), and masks due to considerations of domestic need for such items in managing the COVID-19 pandemic within the country. [1]

[1] Ministry of Commerce of the Republic of Indonesia. "Second Amendment to MOT 23/2020 concerning Temporary Prohibition of Exports of Antiseptics, Mask Raw Materials, Personal Protective Equipment, and Masks (Perubahan Kedua Atas Permendag Nomor 23 Tahun 2020 tentang Larangan Sementara Ekspor Antiseptik, Bahan Baku Masker, Alat Pelindung Diri, dan Masker)". [<http://jdih.kemendag.go.id/peraturan/detail/1983/2>]. Accessed 8 September 2020.

### 3.7.1b

**In the past year, has the country issued a restriction, without international/bilateral support, on the export/import of non-medical goods (e.g. food, textiles, etc) due to an infectious disease outbreak?**

Yes = 0, No = 1

**Current Year Score: 1**

There is no evidence that Indonesia has issued a restriction without international/bilateral support, on the export/import of non-medical goods due to an infectious disease outbreak in the past year. There is no evidence of this on the Ministry of Commerce website, the World Trade Organization website, and the World Bank WITS database. [1, 2, 3]

[1] Ministry of Commerce of the Republic of Indonesia. "Second Amendment to MOT 23/2020 concerning Temporary Prohibition of Exports of Antiseptics, Mask Raw Materials, Personal Protective Equipment, and Masks (Perubahan Kedua Atas Permendag Nomor 23 Tahun 2020 tentang Larangan Sementara Ekspor Antiseptik, Bahan Baku Masker, Alat Pelindung Diri, dan Masker)". [<http://jdih.kemendag.go.id/peraturan/detail/1983/2>]. Accessed 8 September 2020.

[2] World Trade Organization (WTO). "COVID-19: Measures affecting trade in goods".

[[https://www.wto.org/english/tratop\\_e/covid19\\_e/trade\\_related\\_goods\\_measure\\_e.htm](https://www.wto.org/english/tratop_e/covid19_e/trade_related_goods_measure_e.htm)]. Accessed 8 October 2020.

[3] World Integrated Trade Solutions (WITS). [<https://wits.worldbank.org/>]. Accessed 8 October 2020.

## 3.7.2 Travel restrictions

### 3.7.2a

**In the past year, has the country implemented a ban, without international/bilateral support, on travelers arriving from a specific country or countries due to an infectious disease outbreak?**

Yes = 0, No = 1

**Current Year Score: 0**

On February 3, 2020 Indonesia banned travelers from China due to growing concerns over the novel coronavirus, COVID-19. On March 8, 2020 Indonesia added Iran, Italy and South Korea to its ban list, barring entry for travelers from these countries entering Indonesia. [2] Law and Human Rights Ministerial Regulation No. 11 Year 2020 imposes a temporary ban for foreigners entering Indonesia starting April 3, with exception. [3]

[1] Jakarta Post. 3 February 2020. "Indonesia closes doors to travelers from China".

[<https://www.thejakartapost.com/news/2020/02/03/indonesia-closes-doors-to-travelers-from-china.html>]. Accessed 8 September 2020.

[2] Yasmin, Nur. 5 March 2020. "Indonesia Bans Travelers from Iran, Italy, South Korea as COvid-19 Continues to Spread Around the Globe." [<https://jakartaglobe.id/news/indonesia-bans-travelers-from-iran-italy-south-korea-as-covid19-continues-to-spread-around-the-globe>]. Accessed 8 September 2020.

[3] Ministry of Law and Human Rights of the Republic of Indonesia. Regulation No. 11 Year 2020. “Temporary Prohibition of Entry to the Territory of the Republic of Indonesia for Foreigner”. [[https://www.imigrasi.go.id/uploads/06-39-58-REGULATION\\_OF\\_MINISTER\\_OF\\_LAW\\_AND\\_HUMAN\\_RIGHTS\\_NO\\_11\\_OF\\_2020\\_\(ENGLISH\).pdf](https://www.imigrasi.go.id/uploads/06-39-58-REGULATION_OF_MINISTER_OF_LAW_AND_HUMAN_RIGHTS_NO_11_OF_2020_(ENGLISH).pdf)]. Accessed 8 September 2020.

## Category 4: Sufficient and robust health sector to treat the sick and protect health workers

### 4.1 HEALTH CAPACITY IN CLINICS, HOSPITALS, AND COMMUNITY CARE CENTERS

#### 4.1.1 Available human resources for the broader healthcare system

##### 4.1.1a

Doctors per 100,000 people

Input number

Current Year Score: 42.69

2018

WHO; national sources

##### 4.1.1b

Nurses and midwives per 100,000 people

Input number

Current Year Score: 241.49

2018

WHO; national sources

##### 4.1.1c

Does the country have a health workforce strategy in place (which has been updated in the past five years) to identify fields where there is an insufficient workforce and strategies to address these shortcomings?

Yes = 1 , No = 0

Current Year Score: 0

There is insufficient evidence that Indonesia has a public workforce strategy in place (which has been updated in the past five years) to identify fields where there is an insufficient workforce and strategies to address these shortcomings. With support

from the German development agency (GIZ) and the Global Health Workforce Alliance, Indonesia's Ministry of Health developed the "Indonesia Human Resources for Health Development Plan, 2011-2025." This plan covers 13 categories of health workforce, i.e. medical specialist, general practitioner, dentist, nurse, midwife, dental nurse, pharmacist, pharmaceutical assistant, sanitarian (environmental health inspector), nutritionist, public health practitioner, physiotherapist, and medical technician. The plan contains six strategy areas: (1) Strengthening the regulations on development and empowerment of human resources for health (HRH); (2) Improving the HRH requirement planning; (3) Improving and developing the HRH production; (4) Improving the HRH management; (5) Strengthening supervision and quality control of HRH; and (6) Enhancing resources for HRH development. [1] The plan is valid through 2025, but there is no evidence that it was updated in the past five years on the websites of the Ministry of Health, National Institute of Health Research and Development, Ministry of Manpower, Ministry of Education. [2, 3, 4, 5]

- [1] World Health Organization (WHO) Global Health Workforce Alliance. "Indonesia Human Resources for Health Development Plan, 2011-2025 (Rencana Pengembangan Tenaga Kesehatan Tahun 2011-2025)". [[https://www.who.int/workforcealliance/countries/inidonesia\\_hrhplan\\_2011\\_2025.pdf](https://www.who.int/workforcealliance/countries/inidonesia_hrhplan_2011_2025.pdf)]. Accessed 8 September 2020.
- [2] Ministry of Health of the Republic of Indonesia. [<http://www.kemkes.go.id/>]. Accessed 8 October 2020.
- [3] National Institute of Health Research and Development. [[www.litbang.kemkes.go.id](http://www.litbang.kemkes.go.id/)]. Accessed 8 September 2020.
- [4] Ministry of Manpower of the Republic of Indonesia. [<http://kemnaker.go.id/>]. Accessed 8 September 2020.
- [5] Ministry of Education and Culture of the Republic of Indonesia. [<https://www.kemdikbud.go.id/>]. Accessed 8 September 2020.

## 4.1.2 Facilities capacity

### 4.1.2a

**Hospital beds per 100,000 people**

Input number

**Current Year Score: 104**

2017

WHO/World Bank; national sources

### 4.1.2b

**Does the country have the capacity to isolate patients with highly communicable diseases in a biocontainment patient care unit and/or patient isolation room/unit located within the country?**

Yes = 1 , No = 0

**Current Year Score: 1**

Indonesia has the capacity to isolate patients with highly communicable diseases in patient isolation facilities located within the country. According to the "Implementing the National Strategic Plan for Avian Influenza (INSPAI)" final report, Indonesia has "negative pressure isolation rooms developed at 10 hospitals as a demonstration for preventive measures to limit the spread of the virus, prevent cross contamination and protect health personnel from contracting the disease. The ten hospitals are Persahabatan Hospital Jakarta, Gatot Subroto Army Hospital Jakarta, Tangerang Hospital Banten, Kandau Hospital Manado and Gunung Jati Hospital Cirebon, Sulianti Saroso Hospital Jakarta, Soetomo Hospital Surabaya, Moewardi Hospital Solo, Abdoel Moeloek Hospital Lampung, and Ulin Hospital Banjarmasin." [1] Persahabatan Hospital Jakarta has 12

negative pressure isolation rooms. [2] Sulianti Saroso Hospital Jakarta has 22 isolation rooms. [3]

[1] World Health Organization (WHO) Indonesia Country Office. May 2012. "Implementing the National Strategic Plan for Avian Influenza (INSPAI), Final Report".

[<https://www.k4health.org/sites/default/files/INSPAI%20consolidated%20report%202007-2011%20with%20Annexes.pdf>]. Accessed 8 September 2020.

[2] Widhiarto, Hasyim. 29 August 2014. "As RI preps for Ebola, awareness remains low". Jakarta Post.

[<https://www.thejakartapost.com/news/2014/08/29/as-ri-preps-ebola-awareness-remains-low.html>]. Accessed 8 September 2020.

[3] Jakarta Post. 19 December 2017. "Diphtheria patients increase, more isolation rooms needed". Jakarta Post.

[<https://www.thejakartapost.com/news/2017/12/19/diphtheria-patients-increase-more-isolation-rooms-needed.html>]. Accessed 8 September 2020.

#### 4.1.2c

**Does the country meet one of the following criteria?**

**- Is there evidence that the country has demonstrated capacity to expand isolation capacity in response to an infectious disease outbreak in the past two years?**

**- Is there evidence that the country has developed, updated or tested a plan to expand isolation capacity in response to an infectious disease outbreak in the past two years?**

Yes = 1, No = 0

**Current Year Score: 1**

There is evidence that Indonesia has demonstrated capacity to expand isolation capacity in response to an infectious disease outbreak in the past two years but there is no evidence that it has developed, updated or tested a plan to expand isolation capacity in response to an infectious disease outbreak in the past two years.

During the COVID-19 outbreak, the Committee for COVID-19 Management and National Economic Recovery (KPCPEN) hosted a "Productive Dialogue" event themed "Increasing Hospital Capacity to Handle COVID-19 Patients." During this event, Dr. Abdul Kadir from the Directorate-General of Health Services stated Indonesia has instructed hospitals to add or convert a minimum percentage of beds for COVID-19 patient isolation rooms and ICU rooms. For hospitals in the red zone, this was 40% and 30%, respectively. For yellow zone, 30% and 20%, and for green zones 25% and 15%. [1] Additionally, President Joko Widodo reportedly stated that "the government has prepared quarantine centers for those who test positive for COVID-19" and that "a number of... hotels would be transformed into self-isolation centers". Apartments and training centers have also been converted to self-isolation centers. [2] There is no further evidence of the country's capacity building of isolation units or development/update of a plan to do the same on the websites of the Ministry of Health and the National Disaster Management Authority. [3, 4]

[1] COVID-19 Management and National Economic Recovery Committee. "Hospitals Increase Room Allocation for COVID-19 Patients Up to 40% (Rumah Sakit Tambah Alokasi Kamar Pasien COVID-19 Hingga 40%)".

[<https://covid19.go.id/p/berita/rumah-sakit-tambah-alokasi-kamar-pasien-covid-19-hingga-40>]. Accessed 12 April 2021.

[2] The Jakarta Post. 2020. "Indonesia to provide more self-isolation centers for asymptomatic, mild COVID-1 cases".

[<https://www.thejakartapost.com/news/2020/09/14/indonesia-to-provide-more-self-isolation-centers-for-asymptomatic-mild-covid-19-cases.html>]. Accessed 12 April 2021.

[3] Ministry of Health of the Republic of Indonesia. Regulation No. 75 Year 2019. "Health Crisis Management (Penanggulangan Krisis Kesehatan)".

[[http://hukor.kemkes.go.id/uploads/produk\\_hukum/PMK\\_No\\_\\_75\\_Th\\_2019\\_ttg\\_Penanggulangan\\_Krisis\\_Kesehatan.pdf](http://hukor.kemkes.go.id/uploads/produk_hukum/PMK_No__75_Th_2019_ttg_Penanggulangan_Krisis_Kesehatan.pdf)].



Accessed 8 September 2020.

[4] National Disaster Management Authority (BNPB). [<https://bnpb.go.id/>]. Accessed 8 September 2020.

## 4.2 SUPPLY CHAIN FOR HEALTH SYSTEM AND HEALTHCARE WORKERS

### 4.2.1 Routine health care and laboratory system supply

#### 4.2.1a

**Is there a national procurement protocol in place which can be utilized by the Ministries of Health and Agriculture for the acquisition of laboratory supplies (e.g. equipment, reagents and media) and medical supplies (e.g. equipment, PPE) for routine needs?**

Yes for both laboratory and medical supply needs = 2, Yes, but only for one = 1, No = 0

**Current Year Score: 2**

There is a national procurement protocol in place which can be utilized by the Ministries of Health and Agriculture for the acquisition of laboratory supplies (such as equipment, reagents and media) and medical supplies for routine needs. Presidential Regulation No. 54 Year 2010, which governs government procurement of goods and services, explicitly includes laboratories and medicine. The procurement process requires specification of the goals and objectives of the work for which equipment is being procured, the total value of services, the source of financing. There is an electronic catalogue and an e-Procurement system. [1] This system can be utilized by both the Ministry of Health and Agriculture. The Joint External Evaluation for Indonesia from November 2017 indicates that although the country has systems in place for centralized vaccine and logistics procurement, however, "there are administrative constraints on the procurement of laboratory supplies and other logistical needs." [2]

[1] President of the Republic of Indonesia. Regulation No. 54/2010. "Procurement of Government Goods and Services (Pengadaan Baran/Jasa Pemerintah)". [[www.bpkp.go.id/uu/filedownload/5/4/1853.bpkp](http://www.bpkp.go.id/uu/filedownload/5/4/1853.bpkp)]. Accessed 8 September 2020.

[2] World Health Organisation (WHO). 20-24 November 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Indonesia". [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2018.9/en/>]. Accessed 8 September 2020.

### 4.2.2 Stockpiling for emergencies

#### 4.2.2a

**Does the country have a stockpile of medical supplies (e.g. MCMs, medicines, vaccines, medical equipment, PPE) for national use during a public health emergency?**

Yes = 2, Yes, but there is limited evidence about what the stockpile contains = 1, No = 0

**Current Year Score: 1**

There is evidence that Indonesia maintains a stockpile of medical supplies (e.g. MCMs, medicines, vaccines, medical equipment, PPE) for national use during a public health emergency, but there is limited evidence about what the stockpile contains.

According to the Joint External Evaluation (JEE) for Indonesia from November 2017, the Indonesian "government maintains a stockpile (25% buffer stock) of all routine immunization commodities that can be used to mitigate vaccine supply shortages and outbreaks." [1] However, apart from this, there is limited evidence on stockpile quantities for other forms of medical

supplies.

Health Regulation No. 64 Year 2013 on Health Crisis Management mentions that each regional and city health facilities must ensure a "buffer stock" of medicine and medical equipment. [2] The Ministry of Health Technical Guide for Managing a Health Crisis due to Disasters mentions that the role of the Central Regional Health Crisis Management Center is to facilitate a buffer stock of medical equipment, materials, and medicine. [3] It also mentions that during the preparation stage of a disaster, planning for the needs of medical equipment and medicine in the event of a disaster must be taken into account. It calls for the assembly of medical supplies and equipment "packets" to be prepared for disaster preparation. However, there is no further information on what "medical equipment" actually consists of, or whether or not the stockpile is readily available and is able to be used if required. [3]

There is no additional information on this topic on the websites of the Ministry of Health, the National Institute for Health Research and Development, or the Disaster Management Authority. [4,5,6]

[1] World Health Organisation (WHO). 20-24 November 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Indonesia". [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2018.9/en/>]. Accessed 8 September 2020.

[2] Ministry of Health of the Republic of Indonesia. Regulation No. 75 Year 2019. "Health Crisis Management (Penanggulangan Krisis Kesehatan)". [[https://www.kemkes.go.id/resources/download/penanganan-krisis/buku\\_tinjauan\\_pkk\\_2016.pdf](https://www.kemkes.go.id/resources/download/penanganan-krisis/buku_tinjauan_pkk_2016.pdf)]. Accessed 8 September 2020.

[3] Ministry of Health of the Republic of Indonesia. 2011. "Technical Guidelines for Health Crisis Responses on Disaster (Pedoman Teknis Penanggulangan Krisis Kesehatan Akibat Bencana)". [<http://www.searo.who.int/indonesia/documents/ermpub-technicalguidelines.pdf?ua=1>]. Accessed 29 December 2018. Accessed 8 September 2020.

[4] Ministry of Health of the Republic of Indonesia. [<http://www.kemkes.go.id/>]. Accessed 8 September 2020.

[5] National Institute of Health Research and Development (NIHRD). [<https://www.litbang.kemkes.go.id/>]. Accessed 8 September 2020.

[6] National Disaster Management Authority (BNPB) of the Republic of Indonesia. [<https://bnpb.go.id/>]. Accessed 8 September 2020.

#### 4.2.2b

**Does the country have a stockpile of laboratory supplies (e.g. reagents, media) for national use during a public health emergency?**

Yes = 2, Yes, but there is limited evidence about what the stockpile contains = 1, No = 0

**Current Year Score: 0**

There is insufficient evidence that Indonesia maintains a stockpile of laboratory supplies for national use during a public health emergency. Health Ministerial Regulation No. 43 Year 2013 on How to Properly Operate a Lab Clinic, mentions procurement for buffer and reserve stocks of reagents but does not stipulate maintaining buffer and reserve stocks of supplies as a requirement. [1] There is no mention of Indonesia having a stockpile of laboratory supplies for national use during a public health emergency on the websites of the Ministry of Health, Ministry of Defence, and National Disaster Management Authority. [2,3,4].

[1] Ministry of Health of the Republic of Indonesia. Regulation No. 43 Year 2013. "How to Properly Operate a Lab Clinic (Cara Penyelenggaraan Laboratorium Klinik Yang Baik)". [<https://www.kemhan.go.id/itjen/wp-content/uploads/2017/03/bn1216-2013.pdf>]. Accessed 8 September 2020.

[2] Ministry of Health of the Republic of Indonesia. [<http://kemkes.go.id/>]. Accessed 8 September 2020.

[3] Ministry of Defence of the Republic of Indonesia. [<https://www.kemhan.go.id/>]. Accessed 8 September 2020.

[4] National Disaster Management Authority (BNPB). [<https://bnpb.go.id/>]. Accessed 8 September 2020.

#### 4.2.2c

**Is there evidence that the country conducts or requires an annual review of the national stockpile to ensure the supply is sufficient for a public health emergency?**

Yes = 1, No = 0

**Current Year Score: 0**

There is no evidence that Indonesia conducts or requires an annual review of the national stockpile to ensure the supply is sufficient for a public health emergency. There is no evidence of reviews being conducted for medical or laboratory supply stockpiles on the websites of the Ministry of Health, the National Institute for Health Research and Development, or the Disaster Management Authority. [1, 2, 3]

[1] Ministry of Health of the Republic of Indonesia. [<http://www.kemkes.go.id/>]. Accessed 20 May 2021.

[2] National Institute of Health Research and Development (NIHRD). [<https://www.litbang.kemkes.go.id/>]. Accessed 20 May 2021.

[3] National Disaster Management Authority (BNPB) of the Republic of Indonesia. [<https://bnpb.go.id/>]. Accessed 20 May 2021.

### 4.2.3 Manufacturing and procurement for emergencies

#### 4.2.3a

**Does the country meet one of the following criteria?**

- Is there evidence of a plan/agreement to leverage domestic manufacturing capacity to produce medical supplies (e.g. MCMs, medicines, vaccines, equipment, PPE) for national use during a public health emergency?

- Is there evidence of a plan/mechanism to procure medical supplies (e.g. MCMs, medicines, vaccines, equipment, PPE) for national use during a public health emergency?

Needs to meet at least one of the criteria to be scored a 1 on this measure., Yes for both = 1, Yes for one = 1, No for both = 0

**Current Year Score: 0**

There is insufficient evidence that Indonesia has a plan or agreement to leverage domestic manufacturing capacity to produce medical supplies (e.g. MCMs, medicines, vaccines, equipment, PPE) for national use during a public health emergency nor of a mechanism to procure medical supplies (e.g. MCMs, medicines, vaccines, equipment, PPE) for national use during a public health emergency.

Regulation No. 13 Year 2018 on Procurement of Goods / Services during Emergency Management outlines accelerated procedures for procurement during events of disaster, which includes non-natural disasters such as epidemics and infectious diseases. Medical equipment and supplies are included in this list of exceptions for accelerated procurement. There is no further elaboration as to what specific medical equipment and supplies are included. Other items that are included are: materials for debris/landslide cleanup, embankment repair/emergency roads/bridges/piers equipment, fuel, clean water, trash cans, pre-packaged meals, body bags, stretchers, gloves, formaldehyde, evacuation equipment and materials, ready-to-use field kitchens, bricks, cement, tents, pants, t-shirts, school uniforms, shoes, diapers, blankets, mosquito nets, fabrics, medicines, hygiene supplies, vaccines, tools and materials for disease vector control, communication equipment, water filtration equipment, and tools for shelter construction. [1]

In terms of plan or agreement to leverage domestic manufacturing capacity to produce medical supplies during a public health emergency, the Joint External Evaluation (JEE) of IHR Core Capacities of the Republic of Indonesia, conducted in 2017, notes that "in general, Indonesia has the capacity to increase the production of medical countermeasures." The JEE mentions that Indonesia has dedicated resources for the acceptance, distribution and tracking of international medical countermeasures, and has in-country production capacities for vaccines, antibiotics and laboratory supplies. However, Indonesia does not have a formal agreement with manufacturers or distributors to produce MCMs for national use during a public health emergency. [2] There is no mention of Indonesia having a plan or agreement to leverage domestic manufacturing capacity to produce laboratory supplies during a public health emergency on the websites of the Ministry of Health, Ministry of Defence, and National Disaster Management Authority. [3, 4, 5]

- [1] Procurement of Goods and Services Policy Institute of the Republic of Indonesia. Regulation No. 13 Year 2018. "Procurement of Goods and Services during an emergency (Pengadaan Barang/Jasa Dalam Penanganan Keadaan Darurat)". [[https://pengadaan.kemdikbud.go.id/artikel/download/Peraturan%20Lembaga%20Nomor%2013%20Tahun%202018\\_1011\\_1.pdf](https://pengadaan.kemdikbud.go.id/artikel/download/Peraturan%20Lembaga%20Nomor%2013%20Tahun%202018_1011_1.pdf)]. Accessed 8 September 2020.
- [2] World Health Organisation (WHO). 20-24 November 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Indonesia". [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2018.9/en/>]. Accessed 8 September 2020.
- [3] Ministry of Health of the Republic of Indonesia. [<http://kemkes.go.id/>]. Accessed 8 September 2020.
- [4] Ministry of Defence of the Republic of Indonesia. [<https://www.kemhan.go.id/>]. Accessed 8 September 2020.
- [5] National Disaster Management Authority (BNPB). [<https://bnpb.go.id/>]. Accessed 8 September 2020.

#### 4.2.3b

**Does the country meet one of the following criteria?**

- Is there evidence of a plan/agreement to leverage domestic manufacturing capacity to produce laboratory supplies (e.g. reagents, media) for national use during a public health emergency?
- Is there evidence of a plan/mechanism to procure laboratory supplies (e.g. reagents, media) for national use during a public health emergency?

Needs to meet at least one of the criteria to be scored a 1 on this measure., Yes for both = 1, Yes for one = 1, No for both = 0

**Current Year Score: 0**

There is no evidence of a plan/agreement to procure laboratory supplies or to leverage domestic manufacturing capacity to produce laboratory supplies for national use during a public health emergency. The Procurement of Goods and Services Policy Institute Regulation No. 13 Year 2018 on Procurement of Goods and Services during an Emergency does not mention laboratory supplies. Other items that are included in this regulation are: materials for debris/landslide cleanup, embankment repair/emergency roads/bridges/piers equipment, fuel, clean water, trash cans, pre-packaged meals, body bags, stretchers, gloves, formaldehyde, evacuation equipment and materials, ready-to-use field kitchens, bricks, cement, tents, pants, t-shirts, school uniforms, shoes, diapers, blankets, mosquito nets, fabrics, medicines, hygiene supplies, vaccines, tools and materials for disease vector control, communication equipment, water filtration equipment, and tools for shelter construction [1]

There is no mention of Indonesia having a plan or agreement to leverage domestic manufacturing capacity to produce laboratory supplies during a public health emergency on the websites of the Ministry of Health, Ministry of Defence, and National Disaster Management Authority. [2,3,4].

- [1] Procurement of Goods and Services Policy Institute of the Republic of Indonesia. Regulation No. 13 Year 2018. "Procurement of Goods and Services during an emergency (Pengadaan Barang/Jasa Dalam Penanganan Keadaan Darurat)". [[https://pengadaan.kemdikbud.go.id/artikel/download/Peraturan%20Lembaga%20Nomor%2013%20Tahun%202018\\_1011\\_1.pdf](https://pengadaan.kemdikbud.go.id/artikel/download/Peraturan%20Lembaga%20Nomor%2013%20Tahun%202018_1011_1.pdf)]. Accessed 8 September 2020.

[2] Ministry of Health of the Republic of Indonesia. [<https://www.kemkes.go.id/>]. Accessed 8 September 2020.

[3] Ministry of Defence of the Republic of Indonesia. [<https://www.kemhan.go.id/>]. Accessed 8 September 2020.

[4] National Disaster Management Authority (BNPB). [<https://bnpb.go.id/>]. Accessed 8 September 2020.

## 4.3 MEDICAL COUNTERMEASURES AND PERSONNEL DEPLOYMENT

### 4.3.1 System for dispensing medical countermeasures (MCM) during a public health emergency

#### 4.3.1a

Does the country have a plan, program, or guidelines in place for dispensing medical countermeasures (MCM) for national use during a public health emergency (i.e., antibiotics, vaccines, therapeutics and diagnostics)?

Yes = 1, No = 0

Current Year Score: 0

There is no publicly available evidence that Indonesia has guidelines in place for dispensing medical countermeasures for national use during a public health emergency. According to the Joint External Evaluation (JEE) for Indonesia from November 2017, the country has a stockpile of all routine immunization commodities that can be used to mitigate vaccine supply shortages and outbreaks. There is also a plan for the management and distribution of some national stockpiles, namely for acute respiratory infections. However, the JEE does not mention any procedures for dispensing from such stockpiles during public health emergencies. [1] The Ministry of Health's (MOH) "Technical Guidelines for Health Crisis Responses on Disaster" document provides guidance on the management of drugs and other medical countermeasures during public health emergencies and disasters, covering preparedness, immediate response, the provision of medicines, and the storage and distribution of drugs. These guidelines describe procedures for how medicines are to be requested from national stockpiles and distributed to provincial, municipal, and local health facilities, but there is no mention of how medicines are to be dispensed to individuals during public health emergencies. [2] There is no relevant information on the websites of the Ministry of Health, Ministry of Defence, and National Disaster Management Authority. [3, 4, 5]

[1] World Health Organisation (WHO). 20-24 November 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Indonesia". [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2018.9/en/>]. Accessed 8 September 2020.

[2] Ministry of Health of the Republic of Indonesia. 2011. "Technical Guidelines for Health Crisis Responses on Disaster (Pedoman Teknis Penanggulangan Krisis Kesehatan Akibat Bencana)".

[<http://www.searo.who.int/indonesia/documents/ermpub-technicalguidelines.pdf?ua=1>]. Accessed 8 September 2020.

[3] Ministry of Health of the Republic of Indonesia. [<http://www.kemkes.go.id/>]. Accessed 8 September 2020.

[4] Ministry of Defence of the Republic of Indonesia. [<https://www.kemhan.go.id/>]. Accessed 8 September 2020.

[5] National Disaster Management Authority (BNPB). [<https://bnpb.go.id/>]. Accessed 8 September 2020.

### 4.3.2 System for receiving foreign health personnel during a public health emergency

#### 4.3.2a

Is there a public plan in place to receive health personnel from other countries to respond to a public health emergency?

Yes = 1, No = 0

Current Year Score: 1

Indonesia has a public plan in place to receive health personnel from other countries to respond to a public health emergency. The Joint External Evaluation (JEE) for Indonesia from November 2017 references the Ministry of Health's Regulation No. 67/ 2013, which pertains to the administration of foreign health workers in Indonesia. It is not specific to public health emergencies. [1, 2] The JEE report notes that "international health personnel must be accompanied by an Indonesian medical professional and a local translator" in the field. [1] The Ministry of Health has also created a "Technical Guidelines for Health Crisis Responses on Disaster" document which has directions for the management of international human resource support in the event of public health emergencies or natural disasters. Medical teams from overseas should be able to be deployed within the first 24 hours; be sponsored by reputable and qualified international organisations; be familiar with the Indonesian language, culture, and technological levels of operating in remote areas; be able to work without assistance and support for extended amounts of time; and be able to communicate on its work to the media, diplomatic missions, and Indonesian government agencies on their work program and achievements. [3]

[1] World Health Organisation (WHO). 20-24 November 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Indonesia". [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2018.9/en/>]. Accessed 8 September 2020.

[2] Ministry of Health of the Republic of Indonesia. Regulation No. 67/ 2013. "Administration of Foreign Health Workers (Pendayagunaan Tenaga Kesehatan Warga Negara Asing)". [[http://kki.go.id/assets/data/arsip/Permenkes\\_No.\\_67\\_Tahun\\_2013\\_tentang\\_Pendayagunaan\\_Tenaga\\_Kesehatan\\_WNA\\_.pdf](http://kki.go.id/assets/data/arsip/Permenkes_No._67_Tahun_2013_tentang_Pendayagunaan_Tenaga_Kesehatan_WNA_.pdf)]. Accessed 8 October 2020.

[3] Ministry of Health of the Republic of Indonesia. 2011. "Technical Guidelines for Health Crisis Responses on Disaster (Pedoman Teknis Penanggulangan Krisis Kesehatan Akibat Bencana)". [<http://www.searo.who.int/indonesia/documents/ermpub-technicalguidelines.pdf?ua=1>]. Accessed 8 September 2020.

## 4.4 HEALTHCARE ACCESS

### 4.4.1 Access to healthcare

#### 4.4.1a

**Does the constitution explicitly guarantee citizens' right to medical care?**

Guaranteed free = 4, Guaranteed right = 3, Aspirational or subject to progressive realization = 2, Guaranteed for some groups, not universally = 1, No specific provision = 0

**Current Year Score: 3**

2020

World Policy Analysis Center

#### 4.4.1b

**Access to skilled birth attendants (% of population)**

Input number

**Current Year Score: 90.9**

2017

WHO/World Bank/United Nations Children's Fund (UNICEF)

#### 4.4.1c

Out-of-pocket health expenditures per capita, purchasing power parity (PPP; current international \$)

Input number

Current Year Score: 127.33

2017

WHO Global Health Expenditure database

#### 4.4.2 Paid medical leave

##### 4.4.2a

Are workers guaranteed paid sick leave?

Paid sick leave = 2, Unpaid sick leave = 1, No sick leave = 0

Current Year Score: 2

2020

World Policy Analysis Center

#### 4.4.3 Healthcare worker access to healthcare

##### 4.4.3a

Has the government issued legislation, a policy, or a public statement committing to provide prioritized healthcare services to healthcare workers who become sick as a result of responding to a public health emergency?

Yes = 1, No = 0

Current Year Score: 0

There is no evidence that Indonesia has issued legislation, a policy or a public statement committing to provide prioritized health care services to healthcare workers who become sick as a result of responding to a public health emergency. There is no mention of such a statement or commitment in the official guidelines pertaining to public health emergencies, e.g. National Plan of Disaster Management 2015-2019; Technical Guidelines for Health Crisis Responses on Disaster (2011); National Strategic Plan for Avian Influenza Control and Pandemic Influenza Preparedness 2006-2008, Mitigation and Management of Covid-19 Guide. [1, 2, 3, 4] There is also no evidence of such a statement or commitment on the websites of the Ministry of Health, National Institute for Health Research and Development (NIHRD), and the National Disaster Management Authority (BNPB). [5, 6, 7]

[1] National Disaster Management Authority (BNPB). "National Plan of Disaster Management 2015-2019 (Rencana Nasional Penanggulangan Bencana 2015-2019)". [<https://bnpb.go.id/uploads/24/buku-renas-pb.pdf>]. Accessed 8 September 2020.

[2] Ministry of Health of the Republic of Indonesia. 2011. "Technical Guidelines for Health Crisis Responses on Disaster (Pedoman Teknis Penanggulangan Krisis Kesehatan Akibat Bencana)".

[<http://www.searo.who.int/indonesia/documents/ermpub-technicalguidelines.pdf?ua=1>]. Accessed 8 September 2020.

[3] Republic of Indonesia. "National Strategic Plan for Avian Influenza Control and Pandemic Influenza Preparedness 2006-2008".

[[http://www.apaci.asia/images/Resources/Pandemic\\_planning/indonesia\\_national\\_strategic\\_plan\\_avian\\_influenza\\_control\\_](http://www.apaci.asia/images/Resources/Pandemic_planning/indonesia_national_strategic_plan_avian_influenza_control_)

pandemic\_influenza\_preparedness\_2006.pdf]. Accessed 8 September 2020.

[4] Ministry of Health of the Republic of Indonesia. "COVID-19 Mitigation and Management Guide (Pedoman Pencegahan dan Pengendalian Coronavirus Disease (COVID-19))". [[https://covid19.go.id/storage/app/media/Protokol/REV-05\\_Pedoman\\_P2\\_COVID-19\\_13\\_Juli\\_2020.pdf](https://covid19.go.id/storage/app/media/Protokol/REV-05_Pedoman_P2_COVID-19_13_Juli_2020.pdf)]. Accessed 8 September 2020.

[5] Ministry of Health of the Republic of Indonesia. [<http://www.kemkes.go.id/>]. Accessed 8 September 2020.

[6] National Institute for Health Research and Development (NIHRD). [<https://www.litbang.kemkes.go.id/>]. Accessed 8 September 2020.

[7] National Disaster Management Authority (BNPB). [<https://bnpb.go.id/>]. Accessed 8 September 2020.

## 4.5 COMMUNICATIONS WITH HEALTHCARE WORKERS DURING A PUBLIC HEALTH EMERGENCY

### 4.5.1 Communication with healthcare workers

#### 4.5.1a

**Is there a system in place for public health officials and healthcare workers to communicate during a public health emergency?**

Yes = 1 , No = 0

**Current Year Score: 1**

There is evidence of a system in place for public health officials and healthcare workers in Indonesia to communicate during a public health emergency. The Ministry of Health's Regulation No. 19 Year 2016 created an Integrated Emergency Management System (Sistem Penanggulangan Gawat Darurat Terpadu, or SPGDT), which involves an emergency communication system, a victim/patient emergency handling system, and an emergency transportation system. [1] The SPGDT facilitates information gathering and dissemination during public health emergencies and also serves as the communication system to direct and coordinate health workers. During disaster situations, the SPGDT coordinates its operations with the disaster management agency in charge. [1, 2]

[1] Ministry of Health of the Republic of Indonesia. Regulation No. 19 Year 2016. "Integrated Emergency Management System (Sistem Penanggulangan Gawat Darurat Terpadu)".

[<https://www.persi.or.id/images/regulasi/permenkes/pmk192016.pdf>]. Accessed 8 October 2020.

[2] Ministry of Health of the Republic of Indonesia. Regulation No. 19 Year 2016. "Integrated Emergency Management System (SPGDT) (Sistem Penanggulangan Gawat Darurat Terpadu (SPGDT))".

[[http://hukor.kemkes.go.id/uploads/produk\\_hukum/PMK\\_No.\\_19\\_ttg\\_Sistem\\_Penanggulangan\\_Gawat\\_Darurat\\_Terpadu\\_.pdf](http://hukor.kemkes.go.id/uploads/produk_hukum/PMK_No._19_ttg_Sistem_Penanggulangan_Gawat_Darurat_Terpadu_.pdf)]. Accessed 8 October 2020.

#### 4.5.1b

**Does the system for public health officials and healthcare workers to communicate during an emergency encompass healthcare workers in both the public and private sector?**

Yes = 1 , No = 0

**Current Year Score: 0**

There is a system in place for public health officials and healthcare workers in Indonesia to communicate during a public health emergency, but there is no evidence that the system encompasses healthcare workers in both the public and private sectors. The WHO Joint External Evaluation for Indonesia conducted in November 2017 does not mention a system for public



health officials and healthcare workers to communicate during a public health emergency that encompasses healthcare workers in both the public and private sectors. [1] Nor is there any mention of such a system on the websites of the Ministry of Health and the National Disaster Management Authority (BNPB). [2, 3] Indonesia's National Plan of Disaster Management 2015-2019 does not mention a system for public health officials and healthcare workers to communicate during a public health emergency that encompasses healthcare workers in both the public and private sectors. [4] The Ministry of Health's Regulation No. 19/2016 created an Integrated Emergency Management System (Sistem Penanggulangan Gawat Darurat Terpadu, or SPGDT), which involves an emergency communication system, a victim/patient emergency handling system, and an emergency transportation system. The SPGDT facilitates information gathering and dissemination during public health emergencies and can serve as a communication system during a public health emergency, but there is no evidence that it encompasses healthcare workers in both the public and private sectors. [5]

- [1] World Health Organisation (WHO). 20-24 November 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Indonesia". [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2018.9/en/>]. Accessed 8 September 2020.
- [2] Ministry of Health of the Republic of Indonesia. [<http://www.kemkes.go.id/>]. Accessed 8 September 2020.
- [3] National Disaster Management Authority (BNPB). [<https://bnpb.go.id/>]. Accessed 8 September 2020.
- [4] National Disaster Management Authority (BNPB). "National Plan of Disaster Management 2015-2019 (Rencana Nasional Penanggulangan Bencana 2015-2019)". [<https://bnpb.go.id/uploads/24/buku-renas-pb.pdf>]. Accessed 8 September 2020.
- [5] Ministry of Health of the Republic of Indonesia. Regulation No. 19 Year 2016. "Integrated Emergency Management System (Sistem Penanggulangan Gawat Darurat Terpadu)". [[http://hukor.kemkes.go.id/uploads/produk\\_hukum/PMK\\_No.\\_19\\_ttg\\_Sistem\\_Penanggulangan\\_Gawat\\_Darurat\\_Terpadu\\_.pdf](http://hukor.kemkes.go.id/uploads/produk_hukum/PMK_No._19_ttg_Sistem_Penanggulangan_Gawat_Darurat_Terpadu_.pdf)]. Accessed 8 October 2020.

## 4.6 INFECTION CONTROL PRACTICES AND AVAILABILITY OF EQUIPMENT

### 4.6.1 Healthcare associated infection (HCAI) prevention and control programs

#### 4.6.1a

**Is there evidence that the national public health system is monitoring for and tracking the number of healthcare associated infections (HCAI) that take place in healthcare facilities?**

Yes = 1, No = 0

**Current Year Score: 0**

There is insufficient publicly available evidence that the national public health system is monitoring for and tracking the number of health care associated infections (HCAI) that take place in healthcare facilities. Indonesia's Ministry of Health publishes an annual health report that contains key health care indicators, but HCAI is not among the indicators. [1] The Joint External Evaluation for Indonesia from November 2017 indicates the country has some health care-associated infection (HCAI) prevention and control programmes (score of 3 for Indicator P.3.3), but does not mention monitoring for and tracking the number of HCAI that take place in healthcare facilities. [2] The Ministry of Health has acknowledged HCAI as a problem for the country and aimed to address it with the implementation of the Infection Prevention and Control (PPI or Pencegahan dan Pengendalian Infeksi) programme. [3] Regulation No. 27 from 2017 addresses ways to prevent HCAI, including surveillance of HCAI. [4] Although Regulation No. 27 from 2017 mentions different methods of tracking the number of HCAI, there is no information about the HCAI numbers within Indonesia on the websites of the Ministry of Health and the National Institute of Health Research and Development. [5, 6] This includes COVID-19 related HCAI data. Published studies indicate that there are doctors and researchers at certain hospitals who are monitoring for HCAI. [7, 8]

- [1] Data and Information Centre, Ministry of Health of the Republic of Indonesia. "Profil Kesehatan Indonesia". [<http://www.pusdatin.kemkes.go.id/folder/view/01/structure-publikasi-pusdatin-profil-kesehatan.html>]. Accessed 8 September 2020.
- [2] World Health Organisation (WHO). 20-24 November 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Indonesia". [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2018.9/en/>]. Accessed 8 September 2020.
- [3] Ministry of Health of the Republic of Indonesia. 7 November 2011. "Program Pencegahan dan Pengendalian Infeksi Nosokomial Merupakan Unsur Patient Safety". [<http://www.kemkes.go.id/article/view/1710/program-pencegahan-dan-pengendalian-infeksi-nosokomial-merupakan-unsur-patient-safety.html>]. Accessed 8 September 2020.
- [4] Ministry of Health of the Republic of Indonesia. Regulation No. 27 from 2017. "Guidelines for Prevention and Control of Infection in Health Care Facilities (Peraturan Menteri Kesehatan Republik Indonesia Nomor 27 Tahun 2017 tentang Pedoman Pencegahan dan Pengendalian Infeksi di Fasilitas Pelayanan Kesehatan)". [<http://ditjenpp.kemkumham.go.id/arsip/bn/2017/bn857-2017.pdf>]. Accessed 8 September 2020.
- [5] Ministry of Health of the Republic of Indonesia. [<http://www.kemkes.go.id/>]. Accessed 8 September 2020.
- [6] National Institute of Health Research and Development (Badan Penelitian dan Pengembangan Kesehatan). [<https://www.litbang.kemkes.go.id/>]. Accessed 8 September 2020.
- [7] Murni, Indah K. et al. 2015. "Reducing hospital-acquired infections and improving the rational use of antibiotics in a developing country: an effectiveness study". Archives of Disease in Childhood 100 [5] : 454-459. [<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4413864/>]. Accessed 8 September 2020.
- [8] Widodo, Djoko and Dalima Astrawinata. 2004. "Surveillance of nosocomial infections in Dr. Cipto Mangunkusumo National General Hospital, Jakarta, 1999-2002". Medical Journal of Indonesia 13 [2] : 107-12. [<http://mji.ui.ac.id/journal/index.php/mji/article/view/138>]. Accessed 8 September 2020.

## 4.7 CAPACITY TO TEST AND APPROVE NEW MEDICAL COUNTERMEASURES

### 4.7.1 Regulatory process for conducting clinical trials of unregistered interventions

#### 4.7.1a

**Is there a national requirement for ethical review (e.g., from an ethics committee or via Institutional Review Board approval) before beginning a clinical trial?**

Yes = 1 , No = 0

**Current Year Score: 1**

There is a national requirement for ethical review before beginning a clinic trial. Indonesia's Regulation No. 3 from 2017 establishes a code of ethics and code of behaviour for the National Agency of Food and Drug Control (Badan Pengawas Obat dan Makanan Republik Indonesia, or Badan POM). It created a council (majelis) within Badan POM that is tasked with implementation of and compliance with those ethical and behavioural codes. These regulations do not mention approval procedures for clinical trials. [1] Decree 02002/SK/KBPOM of 2001 pertains to clinical trial procedures and requires approval from an ethics commission as part of the documentation package for a clinical trial application. The Decree defines an Ethics Commission as an independent body (can be an institutional, regional, national, or supranational board), which consists of medical/scientific professionals and non-medical/non-scientific members that can review and evaluate clinical test protocols, research feasibility, facilities, methods, and materials. [2]

[1] National Agency of Food and Drug Control of the Republic of Indonesia (Badan Pengawas Obat dan Makanan Republik Indonesia). Regulation No. 3 of 2017. "On Code of Ethics and Behaviour for the Food and Drug Supervisory Authority

(Peraturan Kepala Badan Pengawas Obat dan Makanan Republik Indonesia Nomor 3 Tahun 2017 tentang Kode Etik dan Kode Perilaku Aparatur Sipil Negara Badan Pengawas Obat dan Makanan)".

[<http://jdih.pom.go.id/produk/peraturan%20kepala%20BPOM/PerKa%20BPOM%20Nomor%203%20Tahun%202017%20tentang%20Kode%20Etik%20dan%20Kode%20Perilaku%20ASN%20BPOM.pdf>]. Accessed 8 September 2020.

[2] National Agency of Food and Drug Control of the Republic of Indonesia (Badan Pengawas Obat dan Makanan Republik Indonesia). Regulation No. 9 Year 2014. "Clinical Trials Approval Procedures (Keputusan Kepala Badan Pengawas Obat dan Makanan Republik Indonesia tentang Tata Laksana Persetujuan Uji Klinik)".

[<http://www.mrinstitute.org/upload/EC%20Guidelines/PERKABADAN%20POM%20NO21%20TH%202015%20kirim%20email%2015%20Feb%202016.pdf>]. Accessed 8 October 2020.

#### 4.7.1b

**Is there an expedited process for approving clinical trials for unregistered medical countermeasures (MCM) to treat ongoing epidemics?**

Yes = 1 , No = 0

**Current Year Score: 0**

There is no evidence of an expedited process for approving clinical trials for unregistered medical countermeasures to treat ongoing pandemics. Decree 02002/SK/KBPOM of 2001, which pertains to clinical trial procedures, does not mention any kind of expedited approval process for clinical trials. [1] The National Agency of Food and Drug Control website states that implementation of all clinical trials for COVID-19 must meet specific criteria and uphold research ethics in accordance with the Guidelines for Good Clinical Practice. [2,3] None of the regulations listed with the National Agency of Food and Drug Control's Legal Documentation and Information Network pertain to expedited approval processes for clinical trials for unregistered medical countermeasures to treat ongoing pandemics. [4] There is no relevant information on the websites of the Ministry of Health and the Ministry of Research. [5, 6]

[1] National Agency of Food and Drug Control of the Republic of Indonesia (Badan Pengawas Obat dan Makanan Republik Indonesia). Decree Number 02002/SK/KBPOM of 2001. "On Procedure of Clinical Trial (Keputusan Kepala Badan Pengawas Obat dan Makanan Republik Indonesia Nomor 02002/SK/KBPOM tentang Tata Laksana Uji Klinik)".

[<http://jdih.pom.go.id/showpdf.php?u=aFFgWTjAGb69%2Fvm4Mzr1HsyFh7K8zPQiyqLlQLpCfc%3D>]. Accessed 8 September 2020.

[2] National Agency of Food and Drug Control of the Republic of Indonesia. "Kick-Off Meeting and Simulation of COVID-19 Vaccine Test Clinic in Indonesia (Kick-Off Meeting dan Simulasi Uji Klinik Vaksin COVID-19 di Indonesia)".

[<https://www.pom.go.id/new/view/more/pers/555/Kick-Off-Meeting-dan-Simulasi-Uji-Klinik-Vaksin-COVID-19-di-Indonesia.html>]. Accessed 8 September 2020.

[3] National Agency of Food and Drug Control of the Republic of Indonesia. "Guide for Good Test Clinic Operations (Pedoman Cara Uji Klinik Yang Baik di Indonesia)". [<https://www.pom.go.id/new/files/CUKB%20-%202016.pdf>]. Accessed 8 September 2020.

[4] National Agency of Food and Drug Control of the Republic of Indonesia (Badan Pengawas Obat dan Makanan Republik Indonesia). "Legal Documentation and Information Network (Jaringan Dokumentasi dan Informasi Hukum)".

[<http://jdih.pom.go.id/>]. Accessed 8 September 2020.

[5] Ministry of Health of the Republic of Indonesia. [<http://www.kemkes.go.id/>]. Accessed 8 September 2020.

[6] Ministry of Research, Technology, and Higher Education of the Republic of Indonesia. [<https://ristekdikti.go.id/>]. Accessed 8 September 2020.

## 4.7.2 Regulatory process for approving medical countermeasures

### 4.7.2a

**Is there a government agency responsible for approving new medical countermeasures (MCM) for humans?**

Yes = 1 , No = 0

**Current Year Score: 1**

There is a government agency responsible for approving new medical countermeasures for humans. Indonesia's National Agency of Drug and Food Control (Badan POM) has the authority to approve drugs and regulate drug advertising. [1] Regulation No. 16 from 2015 (on the management and assessment of developing new drugs) specifically mentions approval procedures for vaccines. [2]

[1] National Agency of Drug and Food Control (Badan Pengawas Obat dan Makanan). [<https://www.pom.go.id/new/>]. Accessed 8 September 2020.

[2] National Agency of Drug and Food Control (Badan Pengawas Obat dan Makanan). Regulation No. 16, Year 2015. "On Management and Assessment of Developing New Drugs (Peraturan Kepala Bada Republik Indonesia Nomor 16 Tahun 2015 tentang Tata Laksana dan Penilaian Obat Pengembangan Baru)". [<http://jdih.pom.go.id/showpdf.php?u=stVNG9CWh6pL42xBmDZx4Or3FnAOHO64TICxBO9hV6A%3D>]. Accessed 8 September 2020.

### 4.7.2b

**Is there an expedited process for approving medical countermeasures (MCM) for human use during public health emergencies?**

Yes = 1 , No = 0

**Current Year Score: 0**

There is no publicly available evidence of an expedited process for approving medical countermeasures for human use during public health emergencies. Indonesia's National Agency of Drug and Food Control (Badan POM) has regulations on the management and assessment of developing new drugs (Regulation No. 16 from 2015). These regulations mention approval procedures for new medicines, including vaccines, but do make no mention of any expedited process. [1] There is no mention of an expedited process for approving medical countermeasures on the websites of the Ministry of Health, National Institute for Health Research and Development, and Ministry of Research. [2, 3, 4]

[1] National Agency of Drug and Food Control (Badan Pengawas Obat dan Makanan). Regulation No. 16, Year 2015. "On Management and Assessment of Developing New Drugs (Peraturan Kepala Bada Republik Indonesia Nomor 16 Tahun 2015 tentang Tata Laksana dan Penilaian Obat Pengembangan Baru)". [<http://jdih.pom.go.id/showpdf.php?u=stVNG9CWh6pL42xBmDZx4Or3FnAOHO64TICxBO9hV6A%3D>]. Accessed 8 September 2020.

[2] Ministry of Health of the Republic of Indonesia. [<http://www.kemkes.go.id/>]. Accessed 8 September 2020.

[3] National Institute for Health Research and Development (NIHRD). [<https://www.litbang.kemkes.go.id/>]. Accessed 8 September 2020.

[4] Ministry of Research, Technology, and Higher Education of the Republic of Indonesia. [<https://ristekdikti.go.id/>]. Accessed 8 September 2020.

## Category 5: Commitments to improving national capacity, financing plans to address gaps, and adhering to global norms

### 5.1 INTERNATIONAL HEALTH REGULATIONS (IHR) REPORTING COMPLIANCE AND DISASTER RISK REDUCTION

#### 5.1.1 Official IHR reporting

##### 5.1.1a

Has the country submitted IHR reports to the WHO for the previous calendar year?

Yes = 1 , No = 0

Current Year Score: 1

2020

World Health Organization

#### 5.1.2 Integration of health into disaster risk reduction

##### 5.1.2a

Are epidemics and pandemics integrated into the national risk reduction strategy or is there a standalone national disaster risk reduction strategy for epidemics and pandemics?

Yes = 1 , No = 0

Current Year Score: 1

Pandemics are integrated into the national risk reduction strategy. The Ministry of Health's "Technical Guidelines for Health Crisis Responses on Disaster" provides guidelines on managing health crises in disaster situations. Though the term "pandemic" is not used in this document, "epidemic" is and several diseases are mentioned by name, e.g. measles, pneumonia, malaria, etc. These guidelines were meant "to strengthen the Disaster Risk Reduction Programme in Health Sector (DRR-PHS) and disaster emergency management as a whole in various sectors, enabling self-sustainability in reducing risk by having good preparations and effective response to emergencies and disasters according to updated Standard Operating Procedures in 446 districts, Indonesia by 2012." [1]

[1] Ministry of Health of the Republic of Indonesia. 2011. "Technical Guidelines for Health Crisis Responses on Disaster (Pedoman Teknis Penanggulangan Krisis Kesehatan Akibat Bencana)".

[<http://www.searo.who.int/indonesia/documents/ermpub-technicalguidelines.pdf?ua=1>]. Accessed 8 September 2020.

## 5.2 CROSS-BORDER AGREEMENTS ON PUBLIC HEALTH AND ANIMAL HEALTH EMERGENCY RESPONSE

### 5.2.1 Cross-border agreements

#### 5.2.1a

**Does the country have cross-border agreements, protocols, or MOUs with neighboring countries, or as part of a regional group, with regards to public health emergencies?**

Yes = 2, Yes, but there is evidence of gaps in implementation = 1, No = 0

**Current Year Score: 2**

Indonesia has cross-border agreements as part of a regional group with regards to public health emergencies. As a member of the Association for Southeast Asian Nations (ASEAN), Indonesia is part of the ASEAN Health Cooperation, established in 1980, which "has gone a long way in protecting the region from high-impact public health emergencies such as SARS, HPAI H5N1, 2009 H1N1 pandemic, MERS-CoV, Ebola virus disease and Zika virus, and in collectively engaging with populations in the prevention and control of specific conditions, such as non-communicable diseases." [1] The ASEAN Health Cluster 2 Work Programme for 2016 to 2020 has disaster health management as one of its priority areas. [2] The foreign minister of Indonesia made a joint statement with ASEAN and the People's Republic of China on February 20, 2020 to increase cooperation during the COVID-19 pandemic to share information in a timely manner which includes "exchanging available epidemiological information, technical guidelines and solution for epidemic prevention and control, diagnosis, treatment and surveillance." [1] Additionally, after the 52nd Asean Economic Minister's Meeting on August 24-29, 2020, Indonesia, along with ASEAN member countries pledged "to collaborate and support ASEAN's external partners' COVID-19 vaccine development through sharing of key clinical data and reports." [2] Nonetheless, the Joint External Evaluation for Indonesia from November 2017 states that "improvements in cross-border collaboration are required: current mechanisms for sharing public health event information across borders are weak." [3]

[1] Association for Southeast Asian Nations (ASEAN). "ASEAN Health Ministers Meeting (AHMM): Overview".

[<http://asean.org/asean-socio-cultural/asean-health-ministers-meeting-ahmm/overview-2/>]. Accessed 8 September 2020.

[2] Association for Southeast Asian Nations (ASEAN). 2017. "ASEAN Health Cluster 2 Work Programme for 2016 to 2020".

[<https://asean.org/wp-content/uploads/2017/02/Responding-to-All-Hazards-and-Emerging-Threats.pdf>]. 8 September 2020.

[3] World Health Organisation (WHO). 20-24 November 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Indonesia". [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2018.9/en/>]. 8 September 2020.

#### 5.2.1b

**Does the country have cross-border agreements, protocols, or MOUs with neighboring countries, or as part of a regional group, with regards to animal health emergencies?**

Yes = 2, Yes, but there is evidence of gaps in implementation = 1, No = 0

**Current Year Score: 0**

There is insufficient evidence that Indonesia has cross-border agreements as part of a regional group with regards to animal health emergencies.

As a member of the Association of Southeast Asian Nations (ASEAN), Indonesia is part of several ASEAN coordinated efforts to manage region-wide animal health emergencies like rabies and Avian flu. These efforts include surveillance, vaccination, and laboratory diagnostic activities. [1,2,3] Specifically, Indonesia is a part of the ASEAN Taskforce on Highly Pathogenic Avian

Influenza (HPAI) and the ASEAN Animal Health Trust Fund (AAHTF). The ASEAN sectoral working group on livestock formed the ASEAN Regional Animal Health Information System in 2013 for ASEAN member countries, including Indonesia, to share timely information on livestock diseases to improve regional diseases control. An Agreement to establish the ASEAN Coordinating Centre for Animal Health and Zoonoses (ACCAHZ) was signed by all ten ASEAN member states on 7 October 2016 but is pending final ratification by Indonesia as of May 2020. [4,5,6] Nonetheless, the Joint External Evaluation for Indonesia from November 2017 states that "improvements in cross-border collaboration are required: current mechanisms for sharing public health event information across borders are weak." [7]

- [1] Association of Southeast Asian Nations (ASEAN). 2016. "ASEAN Rabies Elimination Strategy". [https://asean.org/?static\_post=asean-rabies-elimination-strategy-asean-secretariat-jakarta]. Accessed 8 September 2020.
- [2] Association of Southeast Asian Nations (ASEAN). "ASEAN Response to Combat Avian Influenza by ASEAN Secretariat". [http://asean.org/?static\_post=asean-response-to-combat-avian-influenza-by-asean-secretariat-3]. Accessed 8 September 2020.
- [3] Association of Southeast Asian Nations (ASEAN). 2010. "Roadmap for an HPAI-Free ASEAN Community by 2020". [http://www.asean.org/uploads/archive/publications/HPAI-Roadmap.pdf]. Accessed 8 September 2020.
- [4] Association of Southeast Asian Nations (ASEAN). "Agreement for the Establishment of ASEAN Animal Health Trust Fund." [https://asean.org/?static\_post=agreement-for-the-establishment-of-asean-animal-health-trust-fund]. Accessed 8 September 2020.
- [5] Association of Southeast Asian Nations (ASEAN). "ASEAN Establishes Coordinating Center to Address Trans Boundary Animal and Zoonotic Diseases." [https://asean.org/asean-establishes-coordinating-centre-to-address-trans-boundary-animal-and-zoonotic-diseases-2/]. Accessed 8 September 2020.
- [6] ISEAS – YUSOF ISHAK INSTITUTE. May 2020. "ASEAN's Covid-19 Pandemic Response: Practical Next Steps". [https://www.iseas.edu.sg/wp-content/uploads/2020/03/ISEAS\_Perspective\_2020\_47.pdf]
- [7] ASEAN Regional Animal Health Information System (ARAHIS). [http://www.arahis.oie.int/]. Accessed 8 September 2020.
- [7] World Health Organisation (WHO). 20-24 November 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Indonesia". [http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2018.9/en/]. Accessed 8 September 2020.

## 5.3 INTERNATIONAL COMMITMENTS

### 5.3.1 Participation in international agreements

#### 5.3.1a

**Does the country have signatory and ratification (or same legal effect) status to the Biological Weapons Convention?**

Signed and ratified (or action having the same legal effect) = 2, Signed = 1, Non-compliant or not a member = 0

**Current Year Score: 2**

2021

Biological Weapons Convention

#### 5.3.1b

**Has the country submitted confidence building measures for the Biological Weapons Convention in the past three years?**

Yes = 1, No = 0

**Current Year Score: 0**

2021

Biological Weapons Convention

### 5.3.1c

Has the state provided the required United Nations Security Council Resolution (UNSCR) 1540 report to the Security Council Committee established pursuant to resolution 1540 (1540 Committee)?

Yes = 1, No = 0

Current Year Score: 1

2021

Biological Weapons Convention

### 5.3.1d

Extent of United Nations Security Council Resolution (UNSCR) 1540 implementation related to legal frameworks and enforcement for countering biological weapons:

Very good (60+ points) = 4, Good (45–59 points) = 3, Moderate (30–44 points) = 2, Weak (15–29 points) = 1, Very weak (0–14 points) or no matrix exists/country is not party to the BWC = 0

Current Year Score: 3

2021

Biological Weapons Convention

## 5.3.2 Voluntary memberships

### 5.3.2a

Does the country meet at least 2 of the following criteria?

- Membership in Global Health Security Agenda (GHSA)
- Membership in the Alliance for Country Assessments for Global Health Security and IHR Implementation (JEE Alliance)
- Membership in the Global Partnership Against the Spread of Weapons and Materials of Mass Destruction (GP)
- Membership in the Australia Group (AG)
- Membership in the Proliferation Security Initiative (PSI)

Needs to meet at least two of the criteria to be scored a 1 on this measure. , Yes for five = 1 , Yes for four = 1 , Yes for three = 1 , Yes for two = 1 , Yes for one = 0 , No for all = 0

Current Year Score: 1

2021

Global Health Security Agenda; JE Alliance; Global Partnership; Australia Group; PSI



## 5.4 JOINT EXTERNAL EVALUATION (JEE) AND PERFORMANCE OF VETERINARY SERVICES PATHWAY (PVS)

### 5.4.1 Completion and publication of a Joint External Evaluation (JEE) assessment and gap analysis

#### 5.4.1a

Has the country completed a Joint External Evaluation (JEE) or precursor external evaluation (e.g., GHSA pilot external assessment) and published a full public report in the last five years?

Yes = 1 , No = 0

Current Year Score: 1

2021

WHO Strategic Partnership for IHR and Health Security (SPH); Global Health Security Agenda

#### 5.4.1b

Has the country completed and published, within the last five years, either a National Action Plan for Health Security (NAPHS) to address gaps identified through the Joint External Evaluation (JEE) assessment or a national GHSA roadmap that sets milestones for achieving each of the GHSA targets?

Yes = 1 , No = 0

Current Year Score: 1

2021

WHO Strategic Partnership for IHR and Health Security (SPH); Global Health Security Agenda

### 5.4.2 Completion and publication of a Performance of Veterinary Services (PVS) assessment and gap analysis

#### 5.4.2a

Has the country completed and published a Performance of Veterinary Services (PVS) assessment in the last five years?

Yes = 1 , No = 0

Current Year Score: 0

2021

OIE PVS assessments

#### 5.4.2b

Has the country completed and published a Performance of Veterinary Services (PVS) gap analysis in the last five years?

Yes = 1 , No = 0

Current Year Score: 0

2021

OIE PVS assessments

## 5.5 FINANCING

### 5.5.1 National financing for epidemic preparedness

#### 5.5.1a

**Is there evidence that the country has allocated national funds to improve capacity to address epidemic threats within the past three years?**

Yes = 1, No = 0

Current Year Score: 0

There is insufficient public evidence that the country has allocated national funds to improve capacity to address epidemic threats within the past three years.

The national budget for health has steadily increased since 2018 from approximately 7.1 billion USD (109 trillion Rp) to 8.9 billion USD (132.2 trillion Rp) in 2020. [1] However, budget data for specific directorates within the Ministry of Health responsible for infectious diseases and epidemic threats is not accessible from the Ministry of Finance, as well as the directorate websites from the Ministry of Health. This includes the directorates for quarantine and surveillance; mitigation and management of infectious diseases; and mitigation and management of vector and zoonotic disease. [1,2] Budget data for specific directorates within the Ministry of Agriculture responsible for zoonotic disease control is not accessible from the Ministry of Finance, as well as the directorate websites from the Ministry of Agriculture. [1,3] However, President Jokowi Widodo announced that for 2021, 6.2% of the national budget or (169.7 trillion Rp) will be allocated to health services, which includes increased capacity for the supply for vaccines, and the management of infectious diseases. [4]

[1] Ministry of Finance. "National Budget 2020 (APBN 2020)". [<https://www.kemenkeu.go.id/single-page/apbn-2020/>]. Accessed 8 September 2020.

[2] Ministry of Health of the Republic of Indonesia. [<http://kemkes.go.id/>]. Accessed 8 September 2020.

[3] Ministry of Agriculture of the Republic of Indonesia. [<https://www.pertanian.go.id/>]

[4] President of the Republic of Indonesia. "National Budget Allocation 2021 for the Health and Education Sectors (Alokasi Belanja Negara 2021 untuk Sektor Kesehatan dan Pendidikan)". [<https://www.presidentri.go.id/siaran-pers/alokasi-belanja-negara-2021-untuk-sektor-kesehatan-dan-pendidikan/#:~:text=RUU%20APBN%202021-,Alokasi%20Belanja%20Negara%202021%20untuk%20Sektor%20Kesehatan%20dan%20Pendidikan,triliun%20pada%20tahun%202021%20mendatang.&text=Sebanyak%206%2C2%20persen%20dari,triliun%20diperuntukkan%20bagi%20sisi%20kesehatan.>]. Accessed 8 September 2020.

## 5.5.2 Financing under Joint External Evaluation (JEE) and Performance of Veterinary Services (PVS) reports and gap analyses

### 5.5.2a

Does the Joint External Evaluation (JEE) report, National Action Plan for Health Security (NAPHS), and/or national GHSA roadmap allocate or describe specific funding from the national budget (covering a time-period either in the future or within the past five years) to address the identified gaps?

Yes = 1 , No/country has not conducted a JEE = 0

**Current Year Score: 1**

2021

WHO Strategic Partnership for IHR and Health Security (SPH); Global Health Security Agenda

### 5.5.2b

Does the Performance of Veterinary Services (PVS) gap analysis and/or PVS assessment allocate or describe specific funding from the national budget (covering a time-period either in the future or within the past five years) to address the identified gaps?

Yes = 1 , No/country has not conducted a PVS = 0

**Current Year Score: 0**

2021

OIE PVS assessments

## 5.5.3 Financing for emergency response

### 5.5.3a

Is there a publicly identified special emergency public financing mechanism and funds which the country can access in the face of a public health emergency (such as through a dedicated national reserve fund, an established agreement with the World Bank pandemic financing facility/other multilateral emergency funding mechanism, or other pathway identified through a public health or state of emergency act)?

Yes = 1 , No = 0

**Current Year Score: 1**

Indonesia has a publicly identified special emergency public financing mechanism and funds which the country can access in the face of a public health emergency. Indonesia is not IDA-eligible, which means it does not qualify for the World Bank Pandemic Financing Facility. However, Indonesia's Regulation No. 22 from 2008 on "Funding and Management of Disaster Relief" provides overall guidance on how government resources can be used in disaster and emergency scenarios. The regulation specifically mentions health services as an approved use for such government funds. The National Disaster Management Authority (Badan Nasional Penanggulangan Bencana, or BNPB) is charged with overseeing disaster management and relief efforts, including the aggregation and allocation of resources. Both the national government and local governments are required to set aside disaster management funds to be allocated toward the BNPB budget. [1]

[1] President of the Republic of Indonesia. Regulation No. 22, Year 2008 "On Funding and Management of Disaster Relief (Peraturan Pemerintah Republik Indonesia Nomor 22 Tahun 2008 tentang Pendanaan dan Pengelolaan Bantuan Bencana)". [<http://ditjenpp.kemerkumham.go.id/arsip/ln/2008/pp22-2008.pdf>]. Accessed 8 September 2020.

## 5.5.4 Accountability for commitments made at the international stage for addressing epidemic threats

### 5.5.4a

Is there evidence that senior leaders (president or ministers), in the past three years, have made a public commitment either to:

- Support other countries to improve capacity to address epidemic threats by providing financing or support?
- Improve the country's domestic capacity to address epidemic threats by expanding financing or requesting support to improve capacity?

Needs to meet at least one of the criteria to be scored a 1 on this measure., Yes for both = 1, Yes for one = 1, No for both = 0

**Current Year Score: 1**

There is evidence that senior leaders have committed to improving domestic capacity to address epidemic threats by expanding financing and requesting support to improve capacity in the past three years. There is also evidence of calls to action to other countries to improve commitments. Former Minister of Health Nila Moeloek has frequently spoken in support of investment for global health security. At the Global Health Security Ministerial Meeting hosted by Indonesia in 2018, Dr. Moeloek stated that no country was free from the threat of an outbreak, and noted the need to improve domestic health, particularly zoonotic diseases. [1] At the meeting, which was co-opened by Dr. Moeloek and Coordinating Minister for Human Development and Cultural Affairs, Puan Maharani, Minister Maharani affirmed Indonesia's commitment to the GHSA 2024 agenda and the shared responsibility to strengthen national capacity and resilience. [2] Minister Maharani stated that "the Indonesian government continues to maintain its commitment to strength cooperation to achieve the GHSA agenda by 2024." [3]

[1] Liputan. "Menkes Nila: Tidak Ada Negara yang Bebas dari Ancaman Masalah Kesehatan (Minister of Health Nila: There is no country that is free from the threat of health problems)". [<https://www.liputan6.com/health/read/3685492/menkes-nila-tidak-ada-negara-yang-bebas-dari-ancaman-masalah-kesehatan>]. Accessed 8 September 2020.

[2] Tirto. November 2018. "Menko PMK Sebut Indonesia Komitmen Dukung Agenda GHSA 2024 (Coordinating Minister for PMK States Indonesia's Commitment to Support the GHSA 2024 Agenda)". [<https://tirto.id/menko-pmk-sebut-indonesia-komitmen-dukung-agenda-ghsa-2024-c9m9>]. Accessed 8 September 2020.

[3] Kompas. November 2018. "Indonesia Berkomitmen Dukung Tercapainya Agenda GHSA 2024 (Indonesia Commits to Support the Achievement of the GHSA 2024 Agenda)". [<https://nasional.kompas.com/read/2018/11/06/15104361/indonesia-berkomitmen-dukung-tercapainya-agenda-ghsa-2024>]. Accessed 8 September 2020.

### 5.5.4b

Is there evidence that the country has, in the past three years, either:

- Provided other countries with financing or technical support to improve capacity to address epidemic threats?
- Requested financing or technical support from donors to improve the country's domestic capacity to address epidemic threats?

Needs to meet at least one of the criteria to be scored a 1 on this measure., Yes for both = 1, Yes for one = 1, No for both = 0

**Current Year Score: 1**

There is evidence that the country has received financing from donors to improve the country's domestic capacity to address epidemic threats within the past three years, but there is no evidence that Indonesia has provided financing or technical support to other countries to improve their capacity to address epidemic threats. According to the Georgetown Infectious Disease Atlas (GIDA) Global Health Security Funding Tracker, Indonesia has received funds from donors to improve domestic capacity to address epidemic threats: A total of 1.09 billion USD has been disbursed out of 2.42 billion committed funds between 2014-2018 from international sources covering prevention, detection, and response core capacities for global health security. Indonesia received a disbursed 239 million USD in 2019 and 118 million USD in 2018. [1] However, there is insufficient evidence via the tracker or the Ministry of Health of financial support for other countries. [1,2] The funder profile for Indonesia on the Georgetown Infectious Disease Atlas (GIDA) Global Health Security Funding Tracker does not mention any support to other countries either. [3]

[1] Global Health Security Funding Tracker. "Recipient profile: Indonesia".

[<https://tracking.ghscosting.org/details/966/recipient>]. Accessed 20 May 2021.

[2] Ministry of Health of the Republic of Indonesia. [<http://www.kemkes.go.id/>]. Accessed 8 September 2020.

[3] Global Health Security Funding Tracker. "Funder profile: Indonesia". [<https://tracking.ghscosting.org/details/966/funder>]. Accessed 20 May 2021.

### 5.5.4c

**Is there evidence that the country has fulfilled its full contribution to the WHO within the past two years?**

Yes = 1, No = 0

**Current Year Score: 1**

2021

Economist Impact analyst qualitative assessment based on official national sources, which vary by country

## 5.6 COMMITMENT TO SHARING OF GENETIC AND BIOLOGICAL DATA AND SPECIMENS

### 5.6.1 Commitment to sharing genetic data, clinical specimens, and/or isolated specimens (biological materials) in both emergency and nonemergency research

#### 5.6.1a

**Is there a publicly available plan or policy for sharing genetic data, clinical specimens, and/or isolated specimens (biological materials) along with the associated epidemiological data with international organizations and/or other countries that goes beyond influenza?**

Yes = 1, No = 0

**Current Year Score: 0**

There is no evidence of a publicly available plan or policy for sharing genetic data, clinical specimens, and/or isolated specimens (biological materials) with international organisations and/or other countries that goes beyond influenza. There is no evidence of a plan or policy for sharing data and specimens on the websites of the Ministry of Health, Ministry of

Agriculture, National Institute for Health Research and Development, and Ministry of Research. [1, 2, 3, 4] The Joint External Evaluation (JEE) for Indonesia from November 2017 notes that the Ministry of Health (MOH) and the Ministry of Agriculture (MOA) are able to send specimens to World Health Organisation (WHO) Collaborating Centres and World Organisation for Animal Health (OIE) referral laboratories using the Standard Material Transfer Agreement (SMTA). The JEE mentions the MOH and MOA sending avian influenza samples, but not other types of specimens. [5]

[1] Ministry of Health of the Republic of Indonesia. [<http://www.kemkes.go.id/>]. Accessed 8 September 2020.

[2] Ministry of Agriculture of the Republic of Indonesia. [<http://www.pertanian.go.id/>]. Accessed 8 September 2020.

[3] National Institute for Health Research and Development (NIHRD). [<https://www.litbang.kemkes.go.id/>]. Accessed 8 September 2020.

[4] Ministry of Research, Technology, and Higher Education of the Republic of Indonesia. [<https://ristekdikti.go.id/>]. Accessed 8 September 2020.

[5] World Health Organisation (WHO). 20-24 November 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Indonesia". [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2018.9/en/>]. Accessed 8 September 2020.

### 5.6.1b

**Is there public evidence that the country has not shared samples in accordance with the Pandemic Influenza Preparedness (PIP) framework in the past two years?**

Yes = 0, No = 1

**Current Year Score: 1**

There is no evidence that Indonesia has not shared samples in accordance with the Pandemic Influenza Preparedness (PIP) framework in the past two years. For a period of time during 2006-2007, Indonesia had refused to share samples of the H5N1 virus with World Health Organisation (WHO) Collaborating Centres because it feared that the vaccines developed from the samples would likely be too costly and thus unavailable to developing countries such as Indonesia. Sample sharing resumed in March 2007. [1] There is no evidence of media reports about Indonesia not sharing samples in accordance with the PIP framework in the past two years.

[1] World Health Organisation (WHO). 27 March 2007. "Indonesia to resume sharing H5N1 avian influenza virus samples following a WHO meeting in Jakarta". [<http://www.who.int/mediacentre/news/releases/2007/pr09/en/>]. Accessed 8 September 2020.

### 5.6.1c

**Is there public evidence that the country has not shared pandemic pathogen samples during an outbreak in the past two years?**

Yes = 0, No = 1

**Current Year Score: 1**

There is no public evidence that Indonesia has not shared pandemic pathogen samples during an outbreak in the past two years, including the COVID-19 pandemic. There was no information on this topic on the websites of the Ministry of Health or the Ministry of Foreign Affairs. [1, 2] Neither is there information from the World Health Organisation that would indicate that Indonesia did not share pandemic pathogen samples during an outbreak within the past two years. [3]

[1] Ministry of Health of the Republic of Indonesia. [<http://www.kemkes.go.id/>]. Accessed 8 September 2020.

[2] Ministry of Foreign Affairs of the Republic of Indonesia. [<https://www.kemlu.go.id/>]. Accessed 8 September 2020.

[3] World Health Organisation (WHO). "WHO Disease Outbreak News". [<http://www.who.int/csr/don/en/>]. Accessed 8 September 2020.

## Category 6: Overall risk environment and vulnerability to biological threats

### 6.1 POLITICAL AND SECURITY RISK

#### 6.1.1 Government effectiveness

##### 6.1.1a

Policy formation (Economist Intelligence score; 0-4, where 4=best)

Input number

Current Year Score: 2

2020

Economist Intelligence

##### 6.1.1b

Quality of bureaucracy (Economist Intelligence score; 0-4, where 4=best)

Input number

Current Year Score: 1

2020

Economist Intelligence

##### 6.1.1c

Excessive bureaucracy/red tape (Economist Intelligence score; 0-4, where 4=best)

Input number

Current Year Score: 2

2020

Economist Intelligence

##### 6.1.1d

Vested interests/cronyism (Economist Intelligence score; 0-4, where 4=best)

Input number

Current Year Score: 1

2020

Economist Intelligence

### 6.1.1e

Country score on Corruption Perception Index (0-100, where 100=best)

Input number

Current Year Score: 37

2020

Transparency International

### 6.1.1f

Accountability of public officials (Economist Intelligence score; 0-4, where 4=best)

Input number

Current Year Score: 2

2020

Economist Intelligence

### 6.1.1g

Human rights risk (Economist Intelligence score; 0-4, where 4=best)

Input number

Current Year Score: 2

2020

Economist Intelligence

## 6.1.2 Orderly transfers of power

### 6.1.2a

How clear, established, and accepted are constitutional mechanisms for the orderly transfer of power from one government to another?

Very clear, established and accepted = 4, Clear, established and accepted = 3, One of the three criteria (clear, established, accepted) is missing = 2, Two of the three criteria (clear, established, accepted) are missing = 1, Not clear, not established, not accepted = 0

Current Year Score: 3



2021

Economist Intelligence

### 6.1.3 Risk of social unrest

#### 6.1.3a

**What is the risk of disruptive social unrest?**

Very low: Social unrest is very unlikely = 4, Low: There is some prospect of social unrest, but disruption would be very limited = 3, Moderate: There is a considerable chance of social unrest, but disruption would be limited = 2, High: Major social unrest is likely, and would cause considerable disruption = 1, Very high: Large-scale social unrest on such a level as to seriously challenge government control of the country is very likely = 0

**Current Year Score: 1**

2021

Economist Intelligence

### 6.1.4 Illicit activities by non-state actors

#### 6.1.4a

**How likely is it that domestic or foreign terrorists will attack with a frequency or severity that causes substantial disruption?**

No threat = 4, Low threat = 3, Moderate threat = 2, High threat = 1, Very high threat = 0

**Current Year Score: 2**

2021

Economist Intelligence

#### 6.1.4b

**What is the level of illicit arms flows within the country?**

4 = Very high, 3 = High, 2 = Moderate, 1 = Low, 0 = Very low

**Current Year Score: 4**

2020

UN Office of Drugs and Crime (UNODC)

#### 6.1.4c

**How high is the risk of organized criminal activity to the government or businesses in the country?**

Very low = 4, Low = 3, Moderate = 2, High = 1, Very high = 0

**Current Year Score: 2**

2021

Economist Intelligence

## 6.1.5 Armed conflict

### 6.1.5a

Is this country presently subject to an armed conflict, or is there at least a moderate risk of such conflict in the future?

No armed conflict exists = 4, Yes; sporadic conflict = 3, Yes; incursional conflict = 2, Yes, low-level insurgency = 1, Yes; territorial conflict = 0

Current Year Score: 3

2021

Economist Intelligence

## 6.1.6 Government territorial control

### 6.1.6a

Does the government's authority extend over the full territory of the country?

Yes = 1, No = 0

Current Year Score: 1

2021

Economist Intelligence

## 6.1.7 International tensions

### 6.1.7a

Is there a threat that international disputes/tensions could have a negative effect?

No threat = 4, Low threat = 3, Moderate threat = 2, High threat = 1, Very high threat = 0

Current Year Score: 2

2021

Economist Intelligence

## 6.2 SOCIO-ECONOMIC RESILIENCE

### 6.2.1 Literacy

#### 6.2.1a

Adult literacy rate, population 15+ years, both sexes (%)

Input number

**Current Year Score: 95.66**

2018

United Nations Development Programme (UNDP); United Nations Educational, Scientific and Cultural Organization (UNESCO);  
The Economist Intelligence Unit

## 6.2.2 Gender equality

### 6.2.2a

**United Nations Development Programme (UNDP) Gender Inequality Index score**

Input number

**Current Year Score: 0.55**

2018

United Nations Development Programme (UNDP); The Economist Intelligence Unit

## 6.2.3 Social inclusion

### 6.2.3a

**Poverty headcount ratio at \$1.90 a day (2011 PPP) (% of population)**

Input number

**Current Year Score: 0.5**

2018

World Bank; Economist Impact

### 6.2.3b

**Share of employment in the informal sector**

Greater than 50% = 2, Between 25-50% = 1, Less than 25% = 0

**Current Year Score: 2**

According to World Bank Data sourced by the ILOSTAT database, Indonesia's share of employment in the informal sector in 2019 was 74.67%, a decrease from 76.51% in 2018. [1]

[1] World Bank. "Informal employment (% of total non-agricultural employment) - Indonesia".

[<https://data.worldbank.org/indicator/SL.ISV.IFRM.ZS?end=2019&locations=ID&start=2016>]. Accessed 8 September 2020.

### 6.2.3c

**Coverage of social insurance programs (% of population)**

Scored in quartiles (0-3, where 3=best)

**Current Year Score: 1**

2016, or latest available

World Bank; Economist Impact calculations

## 6.2.4 Public confidence in government

### 6.2.4a

Level of confidence in public institutions

Input number

**Current Year Score: 2**

2021

Economist Intelligence Democracy Index

## 6.2.5 Local media and reporting

### 6.2.5a

Is media coverage robust? Is there open and free discussion of public issues, with a reasonable diversity of opinions?

Input number

**Current Year Score: 1**

2021

Economist Intelligence Democracy Index

## 6.2.6 Inequality

### 6.2.6a

Gini coefficient

Scored 0-1, where 0=best

**Current Year Score: 0.38**

Latest available.

World Bank; Economist Impact calculations

## 6.3 INFRASTRUCTURE ADEQUACY

### 6.3.1 Adequacy of road network

#### 6.3.1a

What is the risk that the road network will prove inadequate to meet needs?

Very low = 4, Low = 3, Moderate = 2, High = 1, Very high = 0

Current Year Score: 1

2021

Economist Intelligence

### 6.3.2 Adequacy of airports

#### 6.3.2a

What is the risk that air transport will prove inadequate to meet needs?

Very low = 4, Low = 3, Moderate = 2, High = 1, Very high = 0

Current Year Score: 2

2021

Economist Intelligence

### 6.3.3 Adequacy of power network

#### 6.3.3a

What is the risk that power shortages could be disruptive?

Very low = 4, Low = 3, Moderate = 2, High = 1, Very high = 0

Current Year Score: 3

2021

Economist Intelligence

## 6.4 ENVIRONMENTAL RISKS

### 6.4.1 Urbanization

#### 6.4.1a

Urban population (% of total population)

Input number

Current Year Score: 55.98

2019

World Bank

## 6.4.2 Land use

### 6.4.2a

Percentage point change in forest area between 2006–2016

Input number

Current Year Score: -5.47

2008-2018

World Bank; Economist Impact

## 6.4.3 Natural disaster risk

### 6.4.3a

What is the risk that the economy will suffer a major disruption owing to a natural disaster?

Very low = 4, Low = 3, Moderate = 2, High = 1, Very high = 0

Current Year Score: 2

2021

Economist Intelligence

## 6.5 PUBLIC HEALTH VULNERABILITIES

### 6.5.1 Access to quality healthcare

#### 6.5.1a

Total life expectancy (years)

Input number

Current Year Score: 71.51

2018

United Nations; World Bank, UNICEF; Institute for Health Metrics and Evaluation (IHME); Central Intelligence Agency (CIA)  
World Factbook

#### 6.5.1b

Age-standardized NCD mortality rate (per 100 000 population)

Input number

Current Year Score: 660.7

2019

WHO

### **6.5.1c**

Population ages 65 and above (% of total population)

Input number

Current Year Score: 6.05

2019

World Bank

### **6.5.1d**

Prevalence of current tobacco use (% of adults)

Input number

Current Year Score: 37.9

2018

World Bank

### **6.5.1e**

Prevalence of obesity among adults

Input number

Current Year Score: 6.9

2016

WHO

## **6.5.2 Access to potable water and sanitation**

### **6.5.2a**

Percentage of homes with access to at least basic water infrastructure

Input number

Current Year Score: 89.34

2017

UNICEF; Economist Impact

### 6.5.2b

**Percentage of homes with access to at least basic sanitation facilities**

Input number

**Current Year Score: 73.13**

2017

UNICEF; Economist Impact

## 6.5.3 Public healthcare spending levels per capita

### 6.5.3a

**Domestic general government health expenditure per capita, PPP (current international \$)**

Input number

**Current Year Score: 185.06**

2018

WHO Global Health Expenditure database

## 6.5.4 Trust in medical and health advice

### 6.5.4a

**Trust medical and health advice from the government**

Share of population that trust medical and health advice from the government , More than 80% = 2, Between 60-80%, or no data available = 1, Less than 60% = 0

**Current Year Score: 1**

2018

Wellcome Trust Global Monitor 2018

### 6.5.4b

**Trust medical and health advice from medical workers**

Share of population that trust medical and health advice from health professionals , More than 80% = 2, Between 60-80%, or no data available = 1, Less than 60% = 0

**Current Year Score: 1**

2018



Wellcome Trust Global Monitor 2018