Vietnam

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

CATEGORY 1: PREVENTING THE EMERGENCE OR RELEASE OF PATHOGENS WITH

POTENTIAL FOR INTERNATIONAL CONCERN	4
1.1 Antimicrobial resistance (AMR)	4
1.2 Zoonotic disease	7
1.3 Biosecurity	14
1.4 Biosafety	22
1.5 Dual-use research and culture of responsible science	24
1.6 Immunization	28
CATEGORY 2: EARLY DETECTION AND REPORTING FOR EPIDEMICS OF POTENTIAL INTERNATIONAL CONCERN	29
2.1 Laboratory systems strength and quality	29
2.2 Laboratory supply chains	32
2.3 Real-time surveillance and reporting	33
2.4 Surveillance data accessibility and transparency	36
2.5 Case-based investigation	43
2.6 Epidemiology workforce	44
CATEGORY 3: RAPID RESPONSE TO AND MITIGATION OF THE SPREAD OF AN EPIDEMIC	46
3.1 Emergency preparedness and response planning	46
3.2 Exercising response plans	50
3.3 Emergency response operation	53
3.4 Linking public health and security authorities	53
3.5 Risk communications	54
3.6 Access to communications infrastructure	57



3.7 Trade and travel restrictions	58
CATEGORY 4: SUFFICIENT AND ROBUST HEALTH SECTOR TO TREAT THE SICK AND PRHEALTH WORKERS	OTECT 59
4.1 Health capacity in clinics, hospitals, and community care centers	59
4.2 Supply chain for health system and healthcare workers	62
4.3 Medical countermeasures and personnel deployment	60
4.4 Healthcare access	68
4.5 Communications with healthcare workers during a public health emergency	70
4.6 Infection control practices and availability of equipment	71
4.7 Capacity to test and approve new medical countermeasures	72
CATEGORY 5: COMMITMENTS TO IMPROVING NATIONAL CAPACITY, FINANCING PLANDRESS GAPS, AND ADHERING TO GLOBAL NORMS	ANS TO
5.1 International Health Regulations (IHR) reporting compliance and disaster risk reduction	74
5.2 Cross-border agreements on public health and animal health emergency response	75
5.3 International commitments	77
5.4 Joint External Evaluation (JEE) and Performance of Veterinary Services Pathway (PVS)	78
5.5 Financing	79
5.6 Commitment to sharing of genetic and biological data and specimens	83
CATEGORY 6: OVERALL RISK ENVIRONMENT AND VULNERABILITY TO BIOLOGICAL TI	HREATS
6.1 Political and security risk	84
6.2 Socio-economic resilience	88
6.3 Infrastructure adequacy	90
6.4 Environmental risks	91
6.5 Public health vulnerabilities	92



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

Vietnam has a national antimicrobial resistance (AMR) plan for the surveillance, detection and reporting of priority AMR pathogens. In 2013, the government passed the National Plan on AMR that runs from 2013 to 2020. The plan mandated the National Surveillance System for AMR; surveillance for antibiotic use and consumption; National Antibiotic Stewardship Programme; Quality and post-marketing surveillance and strengthening of regulations for antibiotic registration, distribution, sale and marketing and also goals for monitoring and reporting. [1,2] The Joint External Evaluation for Vietnam, conducted in October/November 2016, concluded that Vietnam has a comprehensive framework for AMR and has made good progress on implementing measures for AMR detection and healthcare infection prevention and control in selected hospitals. [3] The Fleming Fund confirmed that Vietnam was one of the first six countries in Asia Pacific to develop a national action plan on AMR. The country has established a national steering committee and surveillance unit on AMR. [4] A 2020 study on the One Health approach to AMR in Vietnam found that existing informal networks between animal and human health sectors can be strengthened. [5]

- [1] World Health Organisation (WHO). 28 October 4 November 2016. "Joint External Evaluation of IHR Core Capacities of Vietnam". [http://www.who.int/ihr/publications/WHO-WHE-CPI-2017.21/en/] Accessed 16 August 2020.
- [2] Government of Vietnam. Updated 17 November 2015. "National Plan on AMR [https://thuvienphapluat.vn/van-ban/the-thao-y-te/Decision-2174-QD-BYT-2013-ratification-of-the-National-Action-Plan-to-Combat-Antimicrobial-Resistance-382068.aspx] Accessed 16 August 2020
- [3] World Health Organisation (WHO). 28 November 2018. "Viet Nam: Together and Stronger against antimicrobial resistance". [http://www.wpro.who.int/vietnam/mediacentre/releases/2016/antibiotics_resistance_week2016/en/] Accessed 16 August 2020.
- [4] Fleming Fund. 2020. "Vietnam". [https://www.flemingfund.org/countries/vietnam/] Accessed 20 August 2020.
- [5] Mitchelll , Marisa, et al. 11 February 2020. "The challenges of investigating antimicrobial resistance in Vietnam what benefits does a One Health approach offer the animal and human health sectors?"

[https://bmcpublichealth.biomedcentral.com/articles/10.1186/s12889-020-8319-3] Accessed 19 August 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



Vietnam has a national laboratory system that tests for 6 of the 7+1 priority AMR pathogens. The Joint External Evaluation for Vietnam, conducted in October/November 2016, by the World Health Organisation (WHO) concluded that Vietnam can detect antimicrobial resistance in the seven pathogens under the WHO Global Action Plan on Antimicrobial Resistance, but the assessment does not specify which are the seven pathogens. [1] The US Centres for Disease Control and Prevention (CDC) confirm that Vietnam has a surveillance system of 16 laboratories and six model hospitals, and that these monitor for AMR pathogens. However, the CDC does not state which pathogens are monitored. [2] The Department of Microbiology and Immunology, Pasteur Institute, which was established by the Ministry of Health, confirms monitoring and testing, including analysis for antibiotic resistance, for five priority pathogens: Shigella, Salmonella, E.coli, Staphylococcus aureus, and Streptococcus pneumoniae. It also tests for n. gonorrhea, but there is no mention of drug resistant strains. [3,4] The National Hospital for Tropical Diseases in Hanoi monitors Mycobacterium tuberculosis and tests for N. gonorrheae. [5,6] The other national laboratories (National Institute of Hygiene and Epidemiology (NIHE), Nha Trang Pasteur Institute, Central Highlands Institute of Hygiene and Epidemiology) do not publish additional information about this. [7,8] There is no national public health institute. [9]

- [1] World Health Organisation (WHO). 28 October 4 November 2016. "Joint External Evaluation of IHR Core Capacities of Vietnam". [https://www.who.int/ihr/publications/WHO-WHE-CPI-2017.21/en/] Accessed 16 August 2020.
- [2] Centers for Disease Control and Prevention (CDC). 9 May 2018. "Vietnam Tracks Multi-drug Resistant Bacteria". [https://www.cdc.gov/globalhealth/security/stories/vietnam-tracks-multi-drug-resistant-bacteria.html] Accessed 16 August 2020.
- [3] The Department of Microbiology and Immunology, Pasteur Institute. 21 October 2014. "Department of Microbial Immunology". [http://www.pasteurhcm.gov.vn/article/khoa-vi-sinh-mien-dich-65.html] Accessed 16 August 2020.
- [4] The Department of Microbiology and Immunology, Pasteur Institute. "Production and service activities." [http://www.pasteurhcm.gov.vn/news/benh-lau-112.html] Accessed 16 August 2020
- [5] OUCRU. AMR. [http://www.oucru.org/antimicrobial-resistance/]. Accessed 19 August 2020.
- [6] Dong, H. et al. May 2019. "Decreased Cephalosporin Susceptibility of Oropharyngeal Neisseria Species in Antibiotic-using Men Who Have Sex With Men in Hanoi, Vietnam". [https://europepmc.org/article/pmc/pmc7319061]. Accessed 19 August 2020.
- [7] National Institute of Hygiene and Epidemiology. "News" [https://nihe.org.vn/danh-muc/tin-trong-nuoc] Accessed 11 August 2020
- [8] Nha Trang Pasteur Institute. "Nha Trang Pasteur Institute." [http://pasteur-nhatrang.org.vn/] Accessed 11 August 2020 [9] Ministry of Health.[http://moh.gov.vn] Accessed 16 August 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: 1

There is public evidence that the government is conducting environmental surveillance for antimicrobial residues. The Ministry of Environment and Natural Resources (MONRE) in Vietnam conducts surveillance and detection activities for antimicrobial residues. MONRE is responsible to evaluate the current status of environmental pollution due to persistent organic pollutant residues such as Aldrin, BHC, Chlordan, DDE, DDT, Dieldrin, Endrin, Endosulphan, Heptachlor, Keltan, Lindane, Methoxyclor, Rothan, Perthan, TDE, Toxaphen, some of which are antibiotic compounds for plants and are used to eradicate pests, fungi and grass. [1] The most recent available report that is publicly available was published in 2015. [1] A presentation from 2017 describes pilot programmes for monitoring AMR residues in aquaculture. [2]The national action plan on combating drug resistance for 2013 – 2020, the Ministry of Health and the Joint External Evaluation for Vietnam,



conducted in October/November 2016, do not mention environmental surveillance activities (e.g. in soil, waterways, etc.) for antimicrobial residues or AMR organisms. [3,4,5]

- [1] Ministry of Environment and Natural Resources. 2015. "Project capacity-building aimed at eliminating chemical crop protection POP residues in Vietnam" [http://www.gef.monre.gov.vn/wp-content/uploads/2016/01/POP_bao-caohientrang final print-1.pdf] Accessed 16 August 2020.
- [2] Long, N. et al. 11 April 2017. [http://www.fao.org/fi/static-media/MeetingDocuments/WorkshopAMR/presentations/15_Dang_Long.pdf]
- [3] Government of Vietnam. Updated 17 November 2015. "National Plan on AMR." [https://thuvienphapluat.vn/van-ban/the-thao-y-te/Decision-2174-QD-BYT-2013-ratification-of-the-National-Action-Plan-to-Combat-Antimicrobial-Resistance-382068.aspx] Accessed 16 August 2020
- [4] Ministry of Health. [http://moh.gov.vn] Accessed 16 August 2020
- [5] World Health Organisation (WHO). 28 October 4 November 2016. "Joint External Evaluation of IHR Core Capacities of Vietnam". [http://www.who.int/ihr/publications/WHO-WHE-CPI-2017.21/en/] Accessed 16 August 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: 1

In Vietnam, there is national legislation in place requiring prescriptions for antibiotic use for humans, but enforcement is weak. The National Assembly passed the 2016 Law on Pharmacy, which banned selling controlled medicines without prescriptions, which includes but does not specifically mention antibiotics. [1,2] Sales of antibiotics without prescriptions continued, so in 2017 the Ministry of Health introduced additional legislation that states "By 2020, 100% of antibiotics sold must be prescriptions at drug counters and pharmacies." [3] A study showed that 88% and 91% of antibiotics sold in urban and rural areas respectively were sold without a prescription. [4] The Joint External Evaluation for Vietnam, conducted in October/November 2016, does not confirm whether prescriptions for antibiotics are required. [5] A 2019 literature review on law enforcement to reduce over the counter sales of antibiotics in low- and middle-income countries found that in Vietnam regulators conduct pharmacy visits, but there was no evidence of fines or other sanctions. [6]

- [1] Government of Vietnam. Decision 105/2016/QH13 6 April 2016. "Law on Pharmacy" [http://vbpl.vn/TW/Pages/vbpqentoanvan.aspx?ltemID=11099] Accessed 16 August 2020.
- [2] Tuoi Tre News. 18 November 2015. "Pharmacies arbitrarily sell antibiotics to buyers in Vietnam".
- [https://tuoitrenews.vn/society/31690/antibiotics-arbitrarily-on-sale-at-pharmacies-in-vietnam] Accessed 16 August 2020.
- [3] Government of Vietnam. Decision 4041/Q?-BYT of 7 September 2017. "Promoting drugs selling control for the 2017-2020 period". [https://dav.gov.vn/ke-hoach-trien-khai-de-an-tang-cuong-kiem-soat-ke-don-thuoc-va-ban-thuoc-ke-don-giai-doan-2017-2020-theo-quyet-dinh-so-4041qd-byt-ngay-0792017-cua-bo-truong-bo-y-te-ne1853.html] Accessed 16 August 2020.
- [4] VN Express International. 17 May 2018. "Antibiotics sales in Vietnam double over 9 years, exacerbate superbug epidemic". [https://e.vnexpress.net/news/news/antibiotics-sales-in-vietnam-double-over-9-years-exacerbate-superbug-epidemic-3750873.html] Accessed 16 August 2020.
- [5] World Health Organisation (WHO). 28 October 4 November 2016. "Joint External Evaluation of IHR Core Capacities of Vietnam". [http://www.who.int/ihr/publications/WHO-WHE-CPI-2017.21/en/] Accessed 16 August 2020.
- [6] Jacobs, Tom. et al. 31 July 2019. [https://bmchealthservres.biomedcentral.com/articles/10.1186/s12913-019-4359-8]



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: 0

In Vietnam, there is no national legislation in place requiring prescriptions for antibiotic use for animals. In June 2017, the Ministry of Agriculture and Rural Development (MARD) issued the National Action plan for the Management of Antibiotics and Anti-Infection in Livestock and Aquaculture. The plan requires the documentation of antibiotic use in livestock and aquaculture and states that policies and guidelines on the prescription and sale of antibiotics should be revised. [1] The plan also introduced a ban on using antibiotics to stimulate growth from January 2018 and a ban on antibiotics in animal feed from January 2020. However, the plan did not explicitly require prescriptions for antibiotic use for animals. [1] The website for the MARD does not have additional legislation requiring this. [2] The national plan on drug resistance for 2013 to 2020 describes the use of antibiotics for treating animals and stimulating growth, but it does not set a requirement to use prescriptions. [3] The Joint External Evaluation for Vietnam, conducted in October/November 2016, does not mention this.

- [1] Ministry of Agriculture and Rural Development. Decision 2625/Q?-BNN-TY of 21 June 2017. "On Management of Antibiotics and Anti-Infection in Livestock and Aquaculture". [https://thuvienphapluat.vn/van-ban/Linh-vuc-khac/Quyet-dinh-2625-QD-BNN-TY-2017-su-dung-khang-sinh-phong-chong-khang-sinh-2017-2020-360197.aspx] Accessed 20 August 2020.
- [2] Ministry of Agriculture and Rural Development. "Party work". [https://www.mard.gov.vn/Pages/cong-tac-dang.aspx] Accessed 11 August 2020
- [3] Government of Vietnam. Updated 17 November 2015. "National Plan on AMR". [https://www.flemingfund.org/wp-content/uploads/4abc59f751f5a94192e38da85e962356.pdf] Accessed 11 August 2020
- [4] World Health Organisation (WHO). 28 October 4 November 2016. "Joint External Evaluation of IHR Core Capacities of Vietnam". [http://www.who.int/ihr/publications/WHO-WHE-CPI-2017.21/en/] Accessed 11 August 2020

1.2 ZOONOTIC 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

In Vietnam, there is a national plan and strategy on zoonotic disease. In July 2013, the Ministry of Health (MOH) and the Ministry of Agriculture and Rural Development (MARD) issued "Guidelines for the prevention of zoonotic diseases". The guidelines provide specific guidance to strengthen the coordination between the two ministries for periodic reporting, regular surveillance, investigating and responding to epidemics, training, and conducting scientific research on zoonotic diseases. [1] To further coordination between the two ministries, MOH and MARD jointly issued the plan "One Health Strategic Plan for Zoonotic Disease 2016 -2020". [2,3] The plan focuses on strengthening capacity for prevention and control of zoonotic diseases. [2,3] The Joint External Evaluation for Vietnam, conducted in October/November 2016 (JEE), concludes that Vietnam has made significant improvements toward implementing a multisectoral approach to address zoonotic diseases with the "One Health Partnership for Zoonoses", which was established under the Prime Minister's guidance to support the application of a One Health approach. [4] In 2018, the government issued an update on the overall progress of



the One Health Strategic Plan (OHSP). The report confirmed surveillance activities of live bird markers, swine population and H7N9 in humans and animals. It also confirmed that coordinated surveillance and cross-sectoral data sharing. [5]

[1] Ministry of Health and Ministry of Agriculture. 2013. "Guidelines for the prevention of zoonotic diseases" [https://thuvienphapluat.vn/van-ban/The-thao-Y-te/Thong-tu-lien-tich-16-2013-TTLT-BYT-BNNPTNT-phong-chong-benh-lay-truyen-190971.aspx] Accessed 11 August 2020

[2] One Health Partnership for Zoonoses. 2017. "A National Strategic Plan 'One Health' for Prevention of Zoonotic disease 2016-2020".

[http://webcache.googleusercontent.com/search?q=cache:67YSHA64sagJ:onehealth.org.vn/upload/upload/VietNam-OneHealth-Strategic-Plan-for-Zoonoses-2016-2020-tech-annex_22June.docx+&cd=2&hl=en&ct=clnk&gl=se] 11 August 2020 [3] Ministry of Health and Ministry of Agriculture. December 2016. "The Vietnam One Health Strategic Plan for Zoonotic Diseases 2016 – 2020".

[4] World Health Organisation (WHO). 28 October – 4 November 2016. "Joint External Evaluation of IHR Core Capacities of Vietnam". [http://www.who.int/ihr/publications/WHO-WHE-CPI-2017.21/en/] Accessed 11 August 2020

[5] One Health Vietnam. 2018. "Viet nam one health strategic plan (OHSP) 2016 - 2020, Update on overall progress as of December 2017". [http://webcache.googleusercontent.com/search?q=cache:R--

7TGsWAr4J:onehealth.org.vn/upload/upload/OHSP%2520Update%2520Report%2520for%2520the%25202018%2520One%2 520Health%2520Forum_EN%2520Final.pdf+&cd=1&hl=en&ct=clnk&gl=se] Accessed 11 August 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 insufficient evidence of a national legislation, plans or equivalent strategy documents that include measures for risk identification and reduction for zoonotic disease spillover events from animals to humans, however there is some vigilance of this. The Disaster Management Authority and Ministries of Agriculture and Rural Development (MARD), Industry and Trade (MOIT) and Health (MOH) do not have information about this. [1,2,3,4] Although there insufficient evidence of plans that directly address this, the government does have some processes that assess risk in animals. Law No. 79/2015/QH13 on Animal Health describes the responsibilities of the Ministry of Agriculture and Rural Development (MARD) to organize animal disease prevention and animal epidemic prevention. The Ministry of Industry and Trade works with MARD to combat trade fraud and animal handling violations, but there are no public documents that mention identifying and implementing specific measures to monitor the risks of zoonotic spillover events. The Ministry of Finance (MOF) is tasked to issue regulations and funding for combating smuggling and illegal animal trade and promoting proper animal handling, specimen sampling and quarantine. However, MOF's mandate does not include assessing the risk of zoonotic spillover diseases. [5] The Ministry of Health (MOH) also publishes plans for identifying and reducing the risks of identified diseases such as the Zika virus and COVID-19. In 2016, the MOH issued plans for tracking and responding to the Zika virus. This included establishing teams to track the spread and identify risks. [6] In 2017, the government issued plans for monitoring and preventing the spread of Dengue Fever. [7] In addition to these plans that are publicly available, USAID reports that it has collaborated with the Vietnamese government to promote early detection and warning of avian and human influenza outbreaks through national and community-based surveillance, and a quick-response capacity. [8]



- [1] Disaster Management Authority. "Tài li?u ???c xem nhi?u".[http://dmc.gov.vn/?lang=vi-VN] Accessed 19 August 2020.
- [2] Ministry of Agriculture and Rural Development. 2018. "Party work (Trang ch? Công tác ??ng)".
- [https://www.mard.gov.vn/Pages/cong-tac-dang.aspx] Accessed 19 August 2020.
- [3] Ministry of Industry and Trade. 2020. "Homepage". [https://moit.gov.vn/home] Accessed 9 September 2020.
- [4] Ministry of Health. 2018. "News activity (Tin ho?t ??ng)". [http://vncdc.gov.vn/] Accessed 19 August 2020.
- [5] Government of Vietnam. 2015. Law No. 79/2015/QH13/ [http://extwprlegs1.fao.org/docs/pdf/vie168546.pdf] Accessed 19 August 2020.
- [6] Ministry of Health. 2016. "Documentation". [https://moh.gov.vn/web/dich-benh/tai-lieu-huong-dan]. Accessed 19 August 2020.
- [7] Ministry of Health. 2017. "Epidemic news". [https://moh.gov.vn/web/dich-benh/thong-tin-chung]. Accessed 19 August 2020.
- [8] USAID. 22 July 2020. "Pandemic Influenza and Other Emerging Threats". [https://www.usaid.gov/vietnam/pandemic-influenza-and-other-emerging-threats] Accessed 19 August 2020.

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

In Vietnam, there is a national plan for the surveillance and control of multiple zoonotic diseases. In 2016, the Ministry of Health and the Ministry of Agriculture and Rural Development (MARD) issued the One Health Strategic Plan for Zoonotic Diseases 2016 – 2020. The plan outlines One Health approaches for managing zoonotic influenza viruses with pandemic potential. These include avian influenzas (H5, HPAI, and H7N9) and swine influenzas. The plan also focuses on managing rabies, and other zoonotic diseases such as anthrax, leptospirosis and Streptococcus suis. [1] The Joint External Evaluation for Vietnam, conducted in October/November 2016, concluded that surveillance guidelines were sufficient for priority zoonotic diseases and all five priority zoonotic diseases were part of the indicator-based surveillance system. [2]

[1] Ministry of Health and Ministry of Agriculture. December 2016. "The Vietnam One Health Strategic Plan for Zoonotic Diseases 2016 – 2020".

[2] World Health Organisation (WHO). 28 October – 4 November 2016. "Joint External Evaluation of IHR Core Capacities of Vietnam". [http://www.who.int/ihr/publications/WHO-WHE-CPI-2017.21/en/] Accessed 11 August 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: 0

In Vietnam, there is a partnership across ministries that is dedicated to zoonotic diseases, but there is no dedicated unit with evidence of funding and staffing. Integrated responses to zoonotic emerging infectious diseases have been in place since 2004. [1] The Ministries of Health (MOH) and Agriculture and Rural Development (MARD) formalized a coordinated approach to zoonosis in December 2016 with the jointly issued the One Health Strategic Plan for Zoonotic Diseases 2016 - 2020. [2] In



2016, the MOH and MARD also established the One Health Partnership (OHP), which consists of various other stakeholders including the Ministry of Natural Resources and the Environment (MONRE), Ministry of Planning and Investment (MPI), and the Ministry of Finance (MOF). The OHP meets regularly, holds workshops and is responsible for reporting its activities and progress on an annual basis.[3,4] However, the Joint External Evaluation for Vietnam, conducted in October/November 2016, found that national steering committee for zoonosis control has been proposed, but not yet established. [5] Websites for the MOH, MARD and OHP do not confirm independent financing or staffing for the OHP. [6,7,8]

[1] Ministry of Health and Ministry of Agriculture. December 2016. "The Vietnam One Health Strategic Plan for Zoonotic Diseases 2016 - 2020".

 $[http://webcache.googleusercontent.com/search?q=cache:QRKMday2XzAJ:onehealth.org.vn/upload/upload/National%2520One%2520Health%2520Strategic%2520Plan%2520for%2520Zoonotic%2520Diseases_EN.pdf+&cd=11&hl=en&ct=clnk&gl=sellacesed 11 August 2020$

- [2] One Health Partnership for Zoonoses. December 2015. "Vietnam National One Health Stakeholders". [http://onehealth.org.vn/upload/upload/Viet%20Nam%20National%20OH%20stakeholder%20mapping_EN%20 [2].pdf] Accessed 11 August 2020
- [3] One Health Partnership. 2014. "Workshop on how to manage zoonotic disease". [http://onehealth.org.vn/tang-cuong-co-che-dieu-phoi-mot-suc-khoe-tai-viet-nam.new] Accessed 11 August 2020
- [4] One Health Partnership. 2017. "Report from OneHealth on Prevention of zoonotic diseases".
- [http://onehealth.org.vn/upload/upload/OHP%20Newsletters%20Q2.2017%20V-FINAL.pdf] Accessed 11 August 2020
- [5] World Health Organisation (WHO). 28 October 4 November 2016. "Joint External Evaluation of IHR Core Capacities of Vietnam". [http://www.who.int/ihr/publications/WHO-WHE-CPI-2017.21/en/] Accessed 11 August 2020
- [6] Ministry of Health. "Homepage". [http://moh.gov.vn/] Accessed 11 August 2020
- [7] Ministry of Agriculture and Rural Development. "Party work". [https://www.mard.gov.vn/Pages/cong-tac-dang.aspx] Accessed 11 August 2020
- [8] One Health Partnership. "Our goal". [http://onehealth.org.vn/about-us.news] Accessed 11 August 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

Vietnam has a national mechanism that is mandatory for owners of livestock to conduct and report on disease surveillance to the central government. The Ministry of Agriculture and Rural Development (MARD) issued Circular No. 07/2016/TT-BNNPTNT in 2016 that requires organizations and individuals to submit a report to the nearest veterinary administration when "detecting diseased or dead animals with signs of infectious diseases or [when] domestic animals die from unclear reasons". The document does not provide additional information on veterinary administrations or the mechanism for reporting. [1] Article 7 of the Veterinary Law regulates information that must be in the report: name of organizations or individuals who report, place and time that the disease was detected, animal kind, the number of animal, description of the disease. [2] More recently, in August 2018, the MARD launched an Online Animal Disease Information System, the Vietnam Animal Health Information System (VAHIS). [3] The purpose of the VAHIS is to simplify and apply information technology to animal disease reporting, and to replace the paper reporting system. VAHIS connects disease information from livestock owners, villages, communes, districts, Provincial Animal Health Sub-Departments (CCCNTY) and Regional Sub-Department of Animal Health (CCTYV), laboratories and other stakeholders to authorities. The technical staff of CCCNTY is responsible for



entering disease information into the system, and the Head of Department is responsible for monitoring and approving the information before sending the electronic report to the Department of Animal Health [4] The Joint External Evaluation for Vietnam, conducted in October/November 2016, does not have additional information about this system. [5]

- [1] Ministry of Agriculture and Rural Development. 5 May 2016 Circular No. 07/2016/TT-BNNPTNT. "On prevention of epidemic on land". [https://thuvienphapluat.vn/van-ban/The-thao-Y-te/Thong-tu-07-2016-TT-BNNPTNT-phong-chong-dich-benh-dong-vat-tren-can-313499.aspx] Accessed 11 August 2020
- [2] Government of Vietnam. 2015. Veterinary Law. [https://vanbanphapluat.co/law-no-79-2015-qh13-on-veterinary-medicine] Accessed 11 August 2020
- [3] Food and Agriculture Organization (FAO). 28 August 2018. "National launching of the Viet Nam Animal Health Information System (VAHIS)". [http://www.fao.org/vietnam/news/detail-events/es/c/1151068/] Accessed 11 August 2020
- [4] Ministry of Agriculture and Rural Development. 28 August 2018. "Official use of the online animal epidemic information system nationwide". [https://www.mard.gov.vn/Pages/le-cong-bo-chinh-thuc-su-dung-he-thong-thong-tin-dich-benh-dong-vat-truc-tuyen-tren-toan-quoc--.aspx] Accessed 11 August 2020
- [5] World Health Organisation (WHO). 28 October 4 November 2016. "Joint External Evaluation of IHR Core Capacities of Vietnam". [http://www.who.int/ihr/publications/WHO-WHE-CPI-2017.21/en/] Accessed 11 August 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

In Vietnam there is no publicly available information about laws or guidelines that may safeguard the confidentiality of information generated through surveillance activities for animals (for owners). The main pieces of legislation that outline the mechanisms for collecting information are the 2016 Circular on the prevention of epidemics on land and the 2015 Veterinary Law. [1,2] Neither document mentions the confidentiality of information. [1,2] In 2017, the National Assembly passed a new law on data protection, but it does not specifically mention data generated through surveillance activity. [3] The Criminal Code also lacks any mention of this. [4] The websites for the Ministry of Health and Ministry of Agriculture and Rural Development do not have publicly available information regarding guidelines to safeguard confidentiality of information generated through surveillance activities for animals (for owners). [5,6] The Joint External Evaluation for Vietnam, conducted in October/November 2016, does not have additional information about this. [7]

- [1] Ministry of Agriculture and Rural Development. 5 May 2016 Circular No. 07/2016/TT-BNNPTNT. "On prevention of epidemic on land". [https://thuvienphapluat.vn/van-ban/The-thao-Y-te/Thong-tu-07-2016-TT-BNNPTNT-phong-chong-dich-benh-dong-vat-tren-can-313499.aspx] Accessed 11 August 2020
- [2] Government of Vietnam. 2015. Veterinary Law. [https://vanbanphapluat.co/law-no-79-2015-qh13-on-veterinary-medicine] Accessed 11 August 2020
- [3] Lexology. 2017. "Data Security and Cybercrime in Viet Nam". [http://www.lexology.com/library/detail.aspx?g=37d6b3a7-f0aa-4a3f-8688-2e31967b1708] Accessed 11 August 2020
- [4] Government of Vietnam. Decision No. 100/2015/QH13 of 27 November 2015. "Criminal Code." [www.wipo.int/edocs/lexdocs/laws/en/vn/vn086en.pdf] Accessed 11 August 2020
- [5] Ministry of Health. 2020. "News activity (Tin noi bat)". [https://moh.gov.vn/tin-noi-bat] Accessed 11 August 2020
- [6] Ministry of Agriculture and Rural Development. 2018. "Party work (Trang ch? Công tác ??ng)".
- [https://www.mard.gov.vn/Pages/cong-tac-dang.aspx] Accessed 11 August 2020
- [7] World Health Organisation (WHO). 28 October 4 November 2016. "Joint External Evaluation of IHR Core Capacities of



Vietnam". [http://www.who.int/ihr/publications/WHO-WHE-CPI-2017.21/en/] Accessed 11 August 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: 1

There is evidence that Vietnam conducts surveillance of zoonotic disease in wildlife (e.g. wild animals, insects, other disease vectors, etc.). Vietnam participates in the Global Health Security Agenda's Zoonotic Disease Action Package (ZDAP). [1,2,3] In particular, there is evidence of programs that monitor mosquitos and zoonotic diseases such as dengue fever. The Ministry of Health oversees the implementation of the World Mosquito Program in Vietnam that was established in 2006. The program is currently focused on introducing naturally occurring Wolbachia bacteria to mosquito populations in Vietnam. These bacteria reduce the ability of mosquitos to transmit viruses to people. The program is active in the provinces of Nha Trang and Vinh Loung. [4]

- [1] The Ministry of Health. 2017. "Zoonotic disease action package". [https://www.mard.gov.vn/Pages/hop-tac-phong-chong-dich-benh-lay-truyen-tu-dong-vat-sang-nguoi.aspx] Accessed 11 August 2020
- [2] One Health Partnership. September 2017. "The updated ZDAP global strategic plan".

[https://www.ghsagenda.org/docs/default-source/default-document-library/archive---vietnam-zdap-files/day-2/s7-2-vietnam-zdap-strategic-plan.pdf] Accessed 11 August 2020

- [3] Global Health Security Agenda. 22 September 2015. "Global Health Security Agenda Roadmap Vietnam". [https://www.ghsagenda.org/docs/default-source/ghsa-roadmaps/ghsa-vietnam-roadmap.pdf] Accessed 11 August 2020
- [4] World Mosquito Program. "Vietnam". [https://www.worldmosquitoprogram.org/en/global-progress/Vietnam]

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: 7.57

2018



OIE WAHIS database

1.2.4b

Number of veterinary para-professionals per 100,000 people

Input number

Current Year Score: 23.33

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: 0

The national plan on zoonotic diseases in Vietnam does not include mechanisms for working with the private sector in controlling or responding to zoonoses. The 2016 National One Health Strategic Plan for Zoonotic Disease 2016-2020, mentions the need to engage with civil society and other stakeholders including members of the private sector in order to build One Health capacity. However, the plan does not describe formal mechanisms or agreements to facilitate interaction with the private sector. [1] In a 2017 conference on Zoonotic Disease Prevention, the Deputy Minister of Health Nguyen Thanh Long said that the government is working with various departments and members of civil society to build capacity around the surveillance, control and prevention of zoonoses, but he did not mention the private sector. [2] The Joint External Evaluation assessment for Vietnam, conducted in October and November 2016, does not mention the private sector. [3] The Ministries of Health and Agriculture and Rural Development do not have additional public information about formal mechanisms to work with the private sector. [4,5]

[1] Ministry of Health and Ministry of Agriculture and Rural Development. December 2016. "The Vietnam One Health Strategic Plan for Zoonotic Diseases 2016 – 2020".

- [2] Ministry of Agriculture and Rural Development. 2017. "3rd International Conference on Zoonotic Disease Prevention" [https://www.mard.gov.vn/Pages/hop-tac-phong-chong-dich-benh-lay-truyen-tu-dong-vat-sang-nguoi.aspx]. Accessed 11 August 2020
- [3] World Health Organisation (WHO). 28 October 4 November 2016. "Joint External Evaluation of IHR Core Capacities of Vietnam". [http://www.who.int/ihr/publications/WHO-WHE-CPI-2017.21/en/]. Accessed 11 August 2020
- [4] Ministry of Health. 2020. "News activity (Tin noi bat)". [https://moh.gov.vn/tin-noi-bat] Accessed 11 August 2020
- [5] Ministry of Agriculture and Rural Development. 2018. "Trang ch? Công tác ??ng (Party work)".

[https://www.mard.gov.vn/Pages/cong-tac-dang.aspx]. Accessed 11 August 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 no public evidence, 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. The Joint External Evaluation for Vietnam, conducted in October and November 2016, states that Vietnam needs to develop national biosecurity legislation, regulation and guidelines that will enable the tracking of dangerous pathogens and toxins. [1] The Ministry of Health has made some progess on this matter and publishes a list, last updated in July 2020, of laboratories that meet grade-I and grade-II biosafety standards. However, the list does not include an inventory of specimens. [2] There is no additional information from the Ministry of Health or the Ministry of Agriculture and Rural Development. [3,4] The national laboratories (National Institute of Hygiene and Epidemiology (NIHE), Pasteur Institute Ho Chi Minh City (PI-HCMC), Nha Trang Pasteur Institute, Central Highlands Institute of Hygiene and Epidemiology) do not publish information about this. [5,6,7] There is no national public health institute. [8] Vietnam has not submitted Confidence Building Measures under the Biological Weapons Convention, and therefore does not make information available through this source. [9] The Vertic BWC Legislation Database does not have information about this. [10]

- [1] World Health Organisation (WHO). 28 October 4 November 2016. "Joint External Evaluation of IHR Core Capacities of Vietnam". [http://www.who.int/ihr/publications/WHO-WHE-CPI-2017.21/en/]. Accessed 11 August 2020
 [2] Ministry of Health. 20 July 2020. "List of Self-published establishments that meet grade-I and grade-II biosafety standards". [http://file.medinet.gov.vn//data/soytehcm/nghiepvuy/attachments/2020_7/atsh_0672020-1_137202010.pdf]. Accessed 11 August 2020
- [3] Ministry of Health. 2018. "Tin ho?t ??ng (News activity)". [http://moh.gov.vn/News/Pages/TinHoatDongV2.aspx]. Accessed 11 August 2020.
- [4] Ministry of Agriculture and Rural Development. 2018. "Trang ch? Công tác??ng (Party work)".
- [https://www.mard.gov.vn/Pages/cong-tac-dang.aspx]. Accessed 11 August 2020
- [5] National Institute of Hygiene and Epidemiology. "Tin trong nu?c" [https://nihe.org.vn/danh-muc/tin-trong-nuoc] Accessed 11 August 2020
- [6] Pasteur Institute Ho Chi Minh City (PI-HCMC). "Pasteur Institute Ho Chi Minh City".
- [http://www.pasteurhcm.gov.vn/article/thong-tin-cua-vien-pasteur-thanh-pho-ho-chi-minh-12.html] Accessed 11 August 2020
- [7] Nha Trang Pasteur Institute. "Nha Trang Pasteur Institute." [http://pasteur-nhatrang.org.vn/] Accessed 11 August 2020
- [8] Ministry of Health. "Homepage". [http://moh.gov.vn] Accessed 11 August 2020
- [9] United Nations Office at Geneva. "Available Confidence Building Measures Reports". [https://bwc-ecbm.unog.ch/state/viet-nam] Accessed 11 August 2020
- [10] Vertic BWC Legislation Database. 2020. "BWC Legislation Database". [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/v/] Accessed 13 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

Vietnam does not have a complete regulatory framework related to biosecurity that addresses 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. The Joint External Evaluation (JEE) for Vietnam, conducted in October and November 2016, stated that the government must develop national biosecurity legislation to implement adequate pathogen control measures, consolidate pathogens to a minimum number of facilities and establish oversight and governance mechanisms to ensure compliance with regulation. [1] The government has issued legislation on biosafety in laboratories to address the containment of dangerous pathogens, but there is no evidence of a national framework for biosecurity. [2,3] In 2016, the government issued Decree No. 35/2016/ND-CP on Guidelines for the Law of Veterinary Medicine. The law outlines the system of veterinary authorities for monitoring diseases and outbreaks, but it does not provide specific guidance on required biosecurity procedures for agricultural/veterinary laboratories . [4] In practice, the Law on Prevention and Control of Infectious Diseases of 2007 provides a basic framework for the transmission of dangerous diseases across borders as well as mutual assistance in fighting epidemics between Vietnam and other countries in the region and the world. [5,6] The Ministries of Health and Agriculture and Rural Development do not have any additional publicly available information on biosecurity regulation. [7,8] In 2017, the member of the Association of Southeast Asian Nations (ASEAN) announced that they will work together to build capacity in bio-safety and bio-security for laboratory and hospital technicians. [9] The national laboratories (National Institute of Hygiene and Epidemiology (NIHE), Pasteur Institute Ho Chi Minh City (PI-HCMC), Nha Trang Pasteur Institute, Central Highlands Institute of Hygiene and Epidemiology) do not publish information about this. [10,11] There is no national public health institute. [12] The VERTIC database does not have any relevant legislation. [13] Vietnam has not submitted Confidence Building Measures under the Biological Weapons Convention, and therefore does not make information available through this source. [14]

- [1] World Health Organisation (WHO). 28 October 4 November 2016. "Joint External Evaluation of IHR Core Capacities of Vietnam". [http://www.who.int/ihr/publications/WHO-WHE-CPI-2017.21/en/]. Accessed 11 August 2020.
- [2] Ministry of Health. 2012. Circular no.25/2012/TT-BYT of 29 November 2018. "On National Technical Regulations on laboratory practice". [https://thuvienphapluat.vn/van-ban/The-thao-Y-te/Thong-tu-25-2012-TT-BYT-Quy-chuan-ky-thuat-quoc-gia-thuc-hanh-an-toan-sinh-hoc-152591.aspx] Accessed 11 August 2020
- [3] Government of Vietnam. 2016. Decree no. 103/2016/ND-CP of 1 July 2016. "On The assurance of biosafety in laboratories". [https://thuvienphapluat.vn/van-ban/The-thao-Y-te/Nghi-dinh-103-2016-ND-CP-quy-dinh-bao-dam-an-toan-sinh-hoc-tai-phong-xet-nghiem-319874.aspx] Accessed 11 August 2020
- [4] Government of Vietnam. Decree No. 35/2016/ND-CP of 15 May 2016. "On Guidelines for the Law of Veterinary Medicine". [https://www.ghsagenda.org/docs/default-source/default-document-library/archive-action-package-meeting/3---discussion-of-vn-on-zdap-and-bbap-20-8---final---508.pdf] Accessed 11 August 2020
- [5] Government of Vietnam. 2007. Law on Prevention and Control of Infectious Disease.
- [https://vietnamlawmagazine.vn/law-on-prevention-and-control-of-infectious-diseases-27083.html] Accessed 19 August 2020
- [6] Vietnam News. 2020. Law on Prevention and Control of Infectious Diseases. [https://vietnamlawmagazine.vn/law-on-prevention-and-control-of-infectious-diseases-27083.html] Accessed 20 August 2020
- [7] Ministry of Health. 2020. "News activity (Tin noi bat)". [https://moh.gov.vn/tin-noi-bat] Accessed 11 August 2020
- [8] Ministry of Agriculture and Rural Development. 2018. "Trang ch? Công tác ??ng (Party work)".



[https://www.mard.gov.vn/Pages/cong-tac-dang.aspx] Accessed 11 August 2020

[9] Manila Bulletin. 16 March 2017. "ASEAN to strengthen cooperation in bio-safety and bio-security".

[https://news.mb.com.ph/2017/03/16/asean-to-strengthen-cooperation-in-bio-safety-and-bio-security/] 11 August 2020

[10] National Institute of Hygiene and Epidemiology. "Tin trong nu?c" [https://nihe.org.vn/danh-muc/tin-trong-nuoc] Accessed 11 August 2020

[11] Pasteur Institute Ho Chi Minh City (PI-HCMC). "Pasteur Institute Ho Chi Minh City".

[http://www.pasteurhcm.gov.vn/article/thong-tin-cua-vien-pasteur-thanh-pho-ho-chi-minh-12.html] Accessed 11 August 2020

[12] Nha Trang Pasteur Institute. "Nha Trang Pasteur Institute." [http://pasteur-nhatrang.org.vn/] Accessed 29 December 2018

[11] Ministry of Health. "B? Y t?".

[http://moh.gov.vn/pages/index.aspx?ReturnUrl=%2f_layouts%2fAuthenticate.aspx%3fSource%3d%252F&Source=%2F] Accessed 11 August 2020

[13] VERTIC. "VERTIC" [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/v/] Accessed 11 August 2020

[14] United Nations Office at Geneva. "Available Confidence Building Measures Reports". [https://bwc-ecbm.unog.ch/state/viet-nam] Accessed 11 August 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

Vietnam does not have an established agency that is responsible for the enforcement of biosecurity legislation in Vietnam. The government has passed legislation on biosafety and the containment of dangerous pathogens in laboratories. Under Decree No. 103/2016 / ND-CP of July 1, 2016 on the assurance of biosafety in laboratories, enforcement responsibilities are shared between the Ministry of Health and the Ministry of Defense. [1] However, the law does not address biosecurity issues. The Ministries of Health and Agriculture and Rural Development do not have any additional publicly available information on biosecurity regulation. [2,3] The Joint External Evaluation (JEE) for Vietnam, conducted in October and November 2016, does not identify any agency or government department responsible for biosecurity. [4] The national laboratories (National Institute of Hygiene and Epidemiology (NIHE), Pasteur Institute Ho Chi Minh City (PI-HCMC), Nha Trang Pasteur Institute, Central Highlands Institute of Hygiene and Epidemiology) do not publish information about this. [5,6,7] There is no national public health institute. [8] The VERTIC database does not have any relevant legislation. [9] Vietnam has not submitted Confidence Building Measures under the Biological Weapons Convention, and therefore does not make information available through this source. [10]

- [1] Government of Vietnam. 2016. Decree no. 103/2016/ND-CP of 1 July 2016. "On The assurance of biosafety in laboratories". [https://thuvienphapluat.vn/van-ban/The-thao-Y-te/Nghi-dinh-103-2016-ND-CP-quy-dinh-bao-dam-an-toan-sinh-hoc-tai-phong-xet-nghiem-319874.aspx] Accessed 11 August 2020
- [2] Ministry of Health. 2020. "News activity (Tin noi bat)". [https://moh.gov.vn/tin-noi-bat] Accessed 11 August 2020
- [3] Ministry of Agriculture and Rural Development. 2020. "Trang ch? Công tác??ng (Party work)".

[https://www.mard.gov.vn/Pages/cong-tac-dang.aspx] Accessed 11 August 2020

- [4] World Health Organisation (WHO). 28 October 4 November 2016. "Joint External Evaluation of IHR Core Capacities of Vietnam". [http://www.who.int/ihr/publications/WHO-WHE-CPI-2017.21/en/] Accessed 11 August 2020
- [5] National Institute of Hygiene and Epidemiology. "Tin trong nu?c" [https://nihe.org.vn/danh-muc/tin-trong-nuoc] Accessed 11 August 2020



- [6] Pasteur Institute Ho Chi Minh City (PI-HCMC). "Pasteur Institute Ho Chi Minh City".
- [http://www.pasteurhcm.gov.vn/article/thong-tin-cua-vien-pasteur-thanh-pho-ho-chi-minh-12.html] Accessed 11 August 2020
- [7] Nha Trang Pasteur Institute. "Nha Trang Pasteur Institute." [http://pasteur-nhatrang.org.vn/] Accessed 11 August 2020
- [8] Ministry of Health. "Homepage". [http://moh.gov.vn] Accessed 11 August 2020
- [9] VERTIC. "VERTIC" [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/v/] Accessed 11 August 2020
- [10] United Nations Office at Geneva. "Available Confidence Building Measures Reports". [https://bwc-ecbm.unog.ch/state/viet-nam] Accessed 11 August 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 Vietnam has taken action to consolidate its inventories of especially dangerous pathogens and toxins into a minimum number of facilities. The Joint External Evaluation (JEE) for Vietnam, conducted in October and November 2016, recommended that the government should pass legislation to consolidate dangerous pathogens and toxins into a minimum number of facilities. [1] The Ministry of Health does publish a list, last updated in July 2020, of laboratories that meet grade-I and grade-II biosafety standards. However, there is no evidence that laboratories consolidate dangerous specimens into a minimum number of facilities. [2] The Ministries of Health, Agriculture and Rural Development, Defence and Science and Technology do not have any additional publicly available information on biosecurity regulation. [3,4,5,6] The national laboratories (National Institute of Hygiene and Epidemiology (NIHE), Pasteur Institute Ho Chi Minh City (PI-HCMC), Nha Trang Pasteur Institute, Central Highlands Institute of Hygiene and Epidemiology) do not publish information about this. [7,8,9] There is no national public health institute. [10] Vietnam has not submitted Confidence Building Measures under the Biological Weapons Convention, and therefore does not make information available through this source. [11] The Vertic BWC Legislation Database does not have information about this. [12]

- [1] World Health Organisation (WHO). 28 October 4 November 2016. "Joint External Evaluation of IHR Core Capacities of Vietnam". [http://www.who.int/ihr/publications/WHO-WHE-CPI-2017.21/en/] Accessed 11 August 2020
- [2] Ministry of Health. July 2020. "List of Self-published establishments that meet grade-I and grade-II biosafety standards". [http://file.medinet.gov.vn/%2Fdata%2Fsoytehcm%5Cnghiepvuy%5Cattachments%2F2018_7%2Fatsh_t7t8-2018_307201814.pdf] Accessed 11 August 2020
- [3] Ministry of Health. 2020. "News activity (Tin noi bat)". [https://moh.gov.vn/tin-noi-bat] Accessed 11 August 2020
- [4] Ministry of Agriculture and Rural Development. 2020. "Party work (Trang ch? Công tác ??ng)".
- [https://www.mard.gov.vn/Pages/cong-tac-dang.aspx] Accessed 11 August 2020
- [5] Ministry of Defence. 2020. "Policies". [http://www.mod.gov.vn/wps/portal/cdcs/vbhd] Accessed 11 August 2020
- [6] Ministry of Science and Technology. 2020. "Legal documents." [https://www.most.gov.vn/en/Pages/LegalDocument.aspx] Accessed 11 August 2020
- [7] National Institute of Hygiene and Epidemiology. "Tin trong nu?c" [https://nihe.org.vn/danh-muc/tin-trong-nuoc] Accessed 11 August 2020
- [8] Pasteur Institute Ho Chi Minh City (PI-HCMC). "Pasteur Institute Ho Chi Minh City".
- [http://www.pasteurhcm.gov.vn/article/thong-tin-cua-vien-pasteur-thanh-pho-ho-chi-minh-12.html] Accessed 11 August 2020
- [9] Nha Trang Pasteur Institute. "Nha Trang Pasteur Institute." [http://pasteur-nhatrang.org.vn/] Accessed 11 August 2020



- [10] Ministry of Health. "B? Y t?". [https://moh.gov.vn/tin-noi-bat] Accessed 11 August 2020
- [11] United Nations Office at Geneva. "Available Confidence Building Measures Reports". [https://bwc-ecbm.unog.ch/state/viet-nam] Accessed 11 August 2020
- [12] Vertic BWC Legislation Database. 2020. "BWC Legislation Database". [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/v/] Accessed 13 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 public evidence of in-country capacity to conduct Polymerase Chain Reaction (PCR)-based diagnostic testing for Ebola (but not anthrax), which would preclude culturing a live pathogen. In 2014, the Ministry of Health issued Decision 4600/QD-BYT, a policy that addresses the diagnosis and treatment of Ebola. The decision provides guidelines for diagnosis and recommends PCR testing a methodology for the detection of Ebola, but does not confirm that it is used. [1] The Joint External Evaluation, which was conducted in 2016, confirmed that national laboratories use modern technology, serology and polymerase-chain reaction, but does not link it directly to Ebola and anthrax. [2] The national laboratories (National Institute of Hygiene and Epidemiology (NIHE), Pasteur Institute Ho Chi Minh City (PI-HCMC), Nha Trang Pasteur Institute, Central Highlands Institute of Hygiene and Epidemiology) do not publish information about this. [3,4,5] In 2020, the government confirmed that it used PCR to test for COVID-19. [6]

- [1] Ministry of Health. 2014. Decision 4600/Q?-BYT of 5 November 2014. "On Guidelines for diagnosis and treatment of Ebola disease". [https://vanbanphapluat.co/quyet-dinh-4600-qd-byt-2014-huong-dan-chan-doan-dieu-tri-benh-do-vi-rut-ebola]
 Accessed 11 August 2020
- [2] World Health Organisation (WHO). 28 October 4 November 2016. "Joint External Evaluation of IHR Core Capacities of Vietnam". [http://www.who.int/ihr/publications/WHO-WHE-CPI-2017.21/en/] Accessed 11 August 2020
- [3] National Institute of Hygiene and Epidemiology. "Tin trong nu?c" [https://nihe.org.vn/danh-muc/tin-trong-nuoc] Accessed 11 August 2020
- [4] Pasteur Institute Ho Chi Minh City (PI-HCMC). "Pasteur Institute Ho Chi Minh City".
- [http://www.pasteurhcm.gov.vn/article/thong-tin-cua-vien-pasteur-thanh-pho-ho-chi-minh-12.html] Accessed 11 August 2020
- [5] Nha Trang Pasteur Institute. "Nha Trang Pasteur Institute." [http://pasteur-nhatrang.org.vn/] Accessed 11 August 2020
- [6] Reuters. 2020. Vietnam capital low on kits for mass tests as nation's virus cases climb.
- [https://www.reuters.com/article/us-health-coronavirus-vietnam/vietnam-capital-low-on-kits-for-mass-tests-as-nations-virus-cases-climb-idUSKCN250175] Accessed 19 August 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 trainthe-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 of a national requirement for biosecurity training, using a standardized approach for personnel who work with especially dangerous pathogens, toxins, or biological materials with pandemic potential. The Joint External Evaluation for Vietnam that was conducted in October and November 2016 concluded that there were regional hubs of expertise that conducted training, but they did not provide targeted biosafety and biorisk management training in any coordinated manner. The report recommended developing a network of trainers and mechanisms to monitor the effectiveness of training. [1] In 2017, the Ministry of Health issued policy on training, but it focused on biosafety in laboratories and did not address biosecurity. [2] There is no additional information from the Ministry of Health or the Ministry of Agriculture and Rural Development. [3,4] The national laboratories (National Institute of Hygiene and Epidemiology (NIHE), Pasteur Institute Ho Chi Minh City (PI-HCMC), Nha Trang Pasteur Institute, Central Highlands Institute of Hygiene and Epidemiology) do not publish information about this. [5,6,7] There is no national public health institute. [8] The VERTIC database does not have any relevant legislation. [9] Vietnam has not submitted Confidence Building Measures under the Biological Weapons Convention, and therefore does not make information available through this source. [10]

- [1] The Ministry of Health. 2017. Circular 37/2017/TT-BYT of 25 September 2017. "On practice of ensuring biosafety in laboratories". [https://thuvienphapluat.vn/van-ban/The-thao-Y-te/Thong-tu-37-2017-TT-BYT-thuc-hanh-bao-dam-an-toan-sinh-hoc-trong-phong-xet-nghiem-326101.aspx] Accessed 11 August 2020
- [2] Ministry of Health. 2020. "News activity (Tin noi bat)". [https://moh.gov.vn/tin-noi-bat] Accessed 11 August 2020
- [3] Ministry of Agriculture and Rural Development. 2020. "Trang ch? Công tác ??ng (Party work)".
- [https://www.mard.gov.vn/Pages/cong-tac-dang.aspx] Accessed 11 August 2020
- [4] Ministry of Defence. 2018. "Policies". [http://www.mod.gov.vn/wps/portal/cdcs/vbhd] Accessed 11 August 2020
- [5] National Institute of Hygiene and Epidemiology. "Tin trong nu?c" [https://nihe.org.vn/danh-muc/tin-trong-nuoc] Accessed 11 August 2020
- [6] Pasteur Institute Ho Chi Minh City (PI-HCMC). "Pasteur Institute Ho Chi Minh City".
- [http://www.pasteurhcm.gov.vn/article/thong-tin-cua-vien-pasteur-thanh-pho-ho-chi-minh-12.html] Accessed 11 August 2020
- [7] Nha Trang Pasteur Institute. "Nha Trang Pasteur Institute." [http://pasteur-nhatrang.org.vn/] Accessed 11 August 2020
- [8] Ministry of Health. "B? Y t?". [https://moh.gov.vn/tin-noi-bat] Accessed 11 August 2020
- [9] VERTIC. "VERTIC" [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/v/] Accessed 11 August 2020
- [10] United Nations Office at Geneva. "Available Confidence Building Measures Reports". [https://bwc-ecbm.unog.ch/state/viet-nam] Accessed 11 August 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

Regulations on the provisions for ensuring safety in laboratories do not require personnel with access to dangerous pathogens to undergo any drug, background, psychological or mental fitness tests. Circular 37/2017/TT-BYT is the policy



document from the Ministry of Health that outlines different levels of guidance for ensuring biosafety in laboratories, graded from Biosecurity level I to Biosecurity level IV. According to the circular, staff must have proper vaccinations for working with dangerous pathogens, but there are no additional requirements. [1] The Ministry of Health, the Ministry of Agriculture and Rural Development and the Ministry of Defence do not have publicly available information about requirements for personnel with access to especially dangerous biological materials. [2,3,4] The national laboratories (National Institute of Hygiene and Epidemiology (NIHE), Pasteur Institute Ho Chi Minh City (PI-HCMC), Nha Trang Pasteur Institute, Central Highlands Institute of Hygiene and Epidemiology) do not publish information about this. [5,6,7] There is no national public health institute. [8] The VERTIC database does not have any relevant legislation. [9] Vietnam has not submitted Confidence Building Measures under the Biological Weapons Convention, and therefore does not make information available through this source. [10]

- [1] The Ministry of Health. 2017. Circular 37/2017/TT-BYT of 25 September 2017. "On practice of ensuring biosafety in laboratories". [https://thuvienphapluat.vn/van-ban/The-thao-Y-te/Thong-tu-37-2017-TT-BYT-thuc-hanh-bao-dam-an-toan-sinh-hoc-trong-phong-xet-nghiem-326101.aspx] Accessed 11 August 2020
- [2] Ministry of Health. 2020. "Tin ho?t ??ng (News activity)". [https://moh.gov.vn/tin-noi-bat] Accessed 11 August 2020
- [3] Ministry of Agriculture and Rural Development. 2020. "Trang ch? Công tác??ng (Party work)".
- [https://www.mard.gov.vn/Pages/cong-tac-dang.aspx] Accessed 11 August 2020
- [4] Ministry of Defence. 2020. "Policies". [http://www.mod.gov.vn/wps/portal/cdcs/vbhd] Accessed 11 August 2020
- [5] National Institute of Hygiene and Epidemiology. "Tin trong nu?c" [https://nihe.org.vn/danh-muc/tin-trong-nuoc] Accessed 11 August 2020
- [6] Pasteur Institute Ho Chi Minh City (PI-HCMC). "Pasteur Institute Ho Chi Minh City". [https://nihe.org.vn/danh-muc/tintrong-nuoc] Accessed 20 August 2020
- [7] Nha Trang Pasteur Institute. "Nha Trang Pasteur Institute." [http://pasteur-nhatrang.org.vn/] Accessed 11 August 2020
- [8] Ministry of Health. "B? Y t?". [http://moh.gov.vn] Accessed 11 August 2020
- [9] VERTIC. "VERTIC" [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/v/] Accessed 11 August 2020
- [10] United Nations Office at Geneva. "Available Confidence Building Measures Reports". [https://bwc-ecbm.unog.ch/state/viet-nam] Accessed 11 August 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: 1

Vietnam has publicly available information on national regulations for the safe and secure transport of infectious substances (categories A and B). The Joint External Evaluation for Vietnam that was conducted in October and November 2016 concluded that guidelines and standard operating procedures (SOPs) for specimen collection and transportation from the field to national and regional laboratories are available and should be improved. [1] The government has published Circular 43/2011/TT-BYT, a policy from 2011 that introduced regulation on the management of infectious disease substances. The circular covers collection, preservation, packing, transportation, use, exchange and destruction. The objective of the circular is to control and ensure the secure transport of category A and B substances. [2] Circuar 40/2018/TT-BYT also outlines handling and packaging requirements for samples of infectious diseases. [3] Vietnam has not submitted Confidence Building Measures under the Biological Weapons Convention, and therefore does not make information available through this source.



- [4] The Vertic BWC Legislation Database does not have information about this. [5]
- [1] World Health Organisation (WHO). 28 October 4 November 2016. "Joint External Evaluation of IHR Core Capacities of Vietnam". [http://www.who.int/ihr/publications/WHO-WHE-CPI-2017.21/en/]. Accessed 11 August 2020
- [2] The Ministry of Health. 2011. Circulars 43/2011/TT-BYT of 5 December 2011. "On The management of specimens of infectious diseases". [https://thuvienphapluat.vn/van-ban/The-thao-Y-te/Thong-tu-43-2011-TT-BYT-che-do-quan-ly-mau-benh-pham-benh-truyen-nhiem-132662.aspx]. Accessed 11 August 2020
- [3] MON. 2018. Circular 40/2018/TT-BYT. [https://thuvienphapluat.vn/van-ban/The-thao-Y-te/Thong-tu-40-2018-TT-BYT-quy-dinh-ve-quan-ly-mau-benh-pham-benh-truyen-nhiem-369319.aspx] Accessed 20 August 2019
- [4] United Nations Office at Geneva. "Available Confidence Building Measures Reports" [https://bwc-ecbm.unog.ch/state/viet-nam] Accessed 11 August 2020
- [5] Vertic BWC Legislation Database. 2020. "BWC Legislation Database". [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/v/] Accessed 13 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: 0

Vietnam has national legislation to oversee the cross-border transfer but not end-user screening of especially dangerous pathogens, toxins and pathogens with pandemic potential. The Joint External Evaluation (JEE) for Vietnam that was conducted in October and November 2016 concluded that guidelines for cross-border transfers are available, but need to be strengthened. Coordination committees at points of entry exist, but the capacity to handle dangerous pathogens is inconsistent. The JEE recommended that Vietnam should strengthen human resources and introduced standardised equipment, plans and SOPs. [1] The policy is described in Circular 43/2011/TT-BYT, the regulation on the management of infectious disease substances. Chapter III of the circular covers cross-border transport of diseases, including those with pandemic potential. The circular describes testing of dangerous specimens, but does not outline SOPs, the use of standardised equipment or end-user screening. Any agencies, organisations or individuals must receive approval from the Ministry of Health to transport dangerous substances. [2] Websites for the Ministries of Health, Defence, Public Security, Trade and Industry and the Disaster Management Authority do not have additional evidence. [3,4,5,6] Vietnam has not submitted Confidence Building Measures under the Biological Weapons Convention, and therefore does not make information available through this source. [7] The Vertic BWC Legislation Database does not have information about this. [8]

- [1] World Health Organisation (WHO). 28 October 4 November 2016. "Joint External Evaluation of IHR Core Capacities of Vietnam". [http://www.who.int/ihr/publications/WHO-WHE-CPI-2017.21/en/]. Accessed 11 August 2020
- [2] The Ministry of Health. 2011. Circulars 43/2011/TT-BYT of 5 December 2011. "On The management of specimens of infectious diseases". [https://thuvienphapluat.vn/van-ban/The-thao-Y-te/Thong-tu-43-2011-TT-BYT-che-do-quan-ly-mau-benh-pham-benh-truyen-nhiem-132662.aspx]. Accessed 11 August 2020
- [3] Ministry of Health. Homepage. [https://moh.gov.vn/] Accessed 11 August 2020
- [4] Ministry of Defense. Homepage. [http://mod.gov.vn/wps/portal/en] Accessed 11 August 2020
- [5] Emergency operation center. Homepage [http://vncdc.gov.vn/vi/van-phong-eoc/153/gioi-thieu-van-phong-eoc] Accessed 11 August 2020
- [6] Ministry of Trade and Industry. Homepage [http://www.moit.gov.vn/] Accessed 11 August 2020



[7] United Nations Office at Geneva. "Available Confidence Building Measures Reports". [https://bwc-ecbm.unog.ch/state/viet-nam] Accessed 11 August 2020

[8] Vertic BWC Legislation Database. 2020. "BWC Legislation Database". [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/v/] Accessed 13 September 2020.

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: 1

Vietnam has national biosafety legislation in place. The Joint External Evaluation, which was conducted in 2016, concluded that the country had made progress in developing a legislative framework for biosafety and that it could improve the application of international standards and investment in maintenance and certification of key equipment. [1] The key law on biosafety is Decree No. 103/2016 /ND-CP of July 1, 2016 on the assurance of biosafety in laboratories. The law addresses the conditions and licensing requirements for ensuring biosafety at laboratories that work with dangerous specimens with pandemic potential. [2] Other circulars that describe biosafety requirements include Circular No. 18/2009 / TT-BYT on the implementation of infection control in medical facilities [3], Circular No. 43/2011/TT-BYT on the management of infectious disease substances [4], and Circular No. 41/2016 /TT-BYT on contagious microorganisms and biosafety risk classifications. [5] Vietnam has not submitted Confidence Building Measures under the Biological Weapons Convention, and therefore does not make information available through this source.[6]

- [1] World Health Organisation (WHO). 28 October 4 November 2016. "Joint External Evaluation of IHR Core Capacities of Vietnam". [http://www.who.int/ihr/publications/WHO-WHE-CPI-2017.21/en/] Accessed 11 August 2020.
- [2] Ministry of Health. Decree No. 103/2016 /ND-CP of July 1, 2016. "On Provisions on Biosafety in laboratories (QUY ??NH V? B?O ??M AN TOÀN SINH H?C T?I PHÒNG XÉT NGHI?M)". [https://thuvienphapluat.vn/van-ban/The-thao-Y-te/Decree-103-2016-ND-CP-biosafety-laboratories-320786.aspx] Accessed 11 August 2020
- [3] Ministry of Health. Circular No. 18/2009 / TT-BYT of 14 October 2009. "On Guideline on the implementation of infection control" (HU?NG D?N T? CH?C TH?C HI?N CÔNG TÁC KI?M SOÁT NHI?M KHU?N TRONG CÁC CO S? KHÁM B?NH, CH?A B?NH). [https://thuvienphapluat.vn/van-ban/The-thao-Y-te/Circular-No-18-2009-TT-BYT-guideline-on-the-implementation-of-infection-control-127781.aspx] Accessed 11 August 2020
- [4] Ministry of Health. Circular No. 43/2011/TT-BYT of 5 December 2011. "On the management of infectious specimens" (QUY Đ?NH CH? Đ? QU?N LÝ M?U B?NH PH?M B?NH TRUY?N NHI?M). [https://thuvienphapluat.vn/van-ban/The-thao-Y-te/Circular-No-43-2011-TT-BYT-on-the-management-of-infectious-specimens-180873.aspx] Accessed 11 August 2020 [5] Ministry of Health. Circular No. 41/2016/TT-BYT of 14 November 2016. "On List of Microorganisms causing infectious diseases" (BAN HÀNH DANH M?C VI SINH V?T GÂY B?NH TRUY?N NHI?M THEO NHÓM NGUY CO VÀ C?P Đ? AN TOÀN SINH H?C PHÙ H?P K? THU?T XÉT NGHI?M). [https://thuvienphapluat.vn/van-ban/The-thao-Y-te/Thong-tu-41-2016-TT-BYT-danh-muc-vi-sinh-vat-gay-benh-truyen-nhiem-theo-nhom-nguy-co-302594.aspx] Accessed 11 August 2020 [6] United Nations Office at Geneva. "Available Confidence Building Measures Reports". [https://bwc-ecbm.unog.ch/state/viet-nam] Accessed 11 August 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: 1

In Vietnam, there is an established agency responsible for the enforcement of biosafety legislation and regulations. The key law on biosafety is Decree No. 103/2016 /ND-CP of July 1, 2016 on the assurance of biosafety in laboratories. The law addresses the conditions and licensing requirements for ensuring biosafety at laboratories that work with dangerous specimens with pandemic potential. [1] Article 23 of the law states that the Ministry of Health is the agency that is responsible for guiding and monitoring the implementation of the biosafety measures. [1] The Joint External Evaluation for Vietnam, conducted in October/November 2016, did not identify which government agency is responsible for biosafety. [2] Vietnam has not submitted Confidence Building Measures under the Biological Weapons Convention, and therefore does not make information available through this source. [3]

[1] Ministry of Health. Decree No. 103/2016 /ND-CP of July 1, 2016. "On Provisions on Biosafety in laboratories" (QUY ??NH V? B?O ??M AN TOÀN SINH H?C T?I PHÒNG XÉT NGHI?M)". [https://thuvienphapluat.vn/van-ban/The-thao-Y-te/Decree-103-2016-ND-CP-biosafety-laboratories-320786.aspx]. Accessed 11 August 2020.

[2] World Health Organisation (WHO). 28 October – 4 November 2016. "Joint External Evaluation of IHR Core Capacities of Vietnam". [http://www.who.int/ihr/publications/WHO-WHE-CPI-2017.21/en/] Accessed 11 August 2020
[3] United Nations Office at Geneva. "Available Confidence Building Measures Reports". [https://bwc-ecbm.unog.ch/state/viet-nam] Accessed 11 August 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 trainthe-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 evidence that Vietnam requires some biosafety training, but not enough to confirm that there is a standardized, required approach for personnel working in facilities with especially dangerous pathogens, toxins, or biological materials with pandemic potential. The Joint External Evaluation for Vietnam, conducted in October/November 2016, concluded that Vietnam has made progress in developing biosafety training capacity in regional institutes and would benefit from targeted biosafety and biorisk management training. The JEE also identified gaps in mechanisms to monitor training outcomes and in requirements for ongoing education. [1] The national laboratories (National Institute of Hygiene and Epidemiology (NIHE), Pasteur Institute Ho Chi Minh City (PI-HCMC), Nha Trang Pasteur Institute, Central Highlands Institute of Hygiene and Epidemiology) do not publish information about this. [2,3,4] There is no national public health institute and websites for the Ministry of Health and Ministry of Ministry of Science and Technology do not address biosafety training. [5,6] The VERTIC database does not have any relevant legislation. [7] Vietnam has not submitted Confidence Building Measures under the Biological Weapons Convention, and therefore does not make information available through this source. [8] In 2020, USAID reported that it had provided technical assistance to the laboratory system in Vietnam to improve protocols and safety assurance for COVID-19 testing. [9]



- [1] World Health Organisation (WHO). 28 October 4 November 2016. "Joint External Evaluation of IHR Core Capacities of Vietnam". [http://www.who.int/ihr/publications/WHO-WHE-CPI-2017.21/en/] Accessed 11 August 2020
- [2] National Institute of Hygiene and Epidemiology. "Tin trong nu?c" [https://nihe.org.vn/danh-muc/tin-trong-nuoc] Accessed 11 August 2020
- [3] Pasteur Institute Ho Chi Minh City (PI-HCMC). "Pasteur Institute Ho Chi Minh City".
- [http://www.pasteurhcm.gov.vn/article/thong-tin-cua-vien-pasteur-thanh-pho-ho-chi-minh-12.html] Accessed 11 August 2020
- [4] Nha Trang Pasteur Institute. "Nha Trang Pasteur Institute." [http://pasteur-nhatrang.org.vn/] Accessed 11 August 2020
- [5] Ministry of Health. "Homepage". [http://moh.gov.vn] Accessed 11 August 2020
- [6] Ministry of Science and Technology. "B? Khoa h?c và Công ngh?". [https://www.most.gov.vn/vn/Pages/Trangchu.aspx] Accessed 11 August 2020
- [7] VERTIC. "VERTIC" [National Institute of Hygiene and Epidemiology. "Tin trong nu?c" [https://nihe.org.vn/danh-muc/tin-trong-nuoc] Accessed 11 August 2020] Accessed 11 August 2020
- [8] United Nations Office at Geneva. "Available Confidence Building Measures Reports". [https://bwc-ecbm.unog.ch/state/viet-nam] Accessed 11 August 2020
- [9] Reliefweb. 2020. USAID's sustained support enables COVID-19-ready public health laboratories in Vietnam. [https://reliefweb.int/report/viet-nam/usaid-s-sustained-support-enables-covid-19-ready-public-health-laboratories-vietnam]

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 evidence that Vietnam has conducted a full assessment of whether ongoing research is occurring on especially dangerous pathogens, toxins, pathogens with pandemic potential, and/or other dual research. [1] The Joint External Evaluation (JEE) for Vietnam, conducted in October/November 2016, did not cite any assessments of ongoing research on dangerous pathogens. The JEE also recommended that Vietnam should implement adequate methods to control, monitor and consolidate dangerous pathogens. [1] The National Institute for Control of Vaccine and Biologicals, the Ministry of Health, the Ministry of Agriculture and Rural Development, and the Ministry of Defence do not have publicly available evidence that any government entity has conducted such an assessment. [2,3,4,5] The national laboratories (National Institute of Hygiene and Epidemiology (NIHE), Pasteur Institute Ho Chi Minh City (PI-HCMC), Nha Trang Pasteur Institute, Central Highlands Institute of Hygiene and Epidemiology) do not publish information about this. [6,7,8] There is no national public health institute. [9] Vietnam has not submitted Confidence Building Measures under the Biological Weapons Convention, and therefore does not make information available through this source. [10] The Vertic BWC Legislation Database does not have information about this. [11]

- [1] World Health Organisation (WHO). 28 October 4 November 2016. "Joint External Evaluation of IHR Core Capacities of Vietnam". [http://www.who.int/ihr/publications/WHO-WHE-CPI-2017.21/en/] Accessed 11 August 2020.
- [2] National Institute for Control of Vaccine and Biologicals. 8 August 2017. "Provisions on biosafety" (Các van b?n quy d?nh



v? An toàn sinh h?c). [http://nicvb.org.vn/an-toan-sinh-hoc/cac-van-ban-quy-dinh-ve-an-toan-sinh-hoc-c71-494.aspx] Accessed 11 August 2020

- [3] Ministry of Health. 2020. "News activity (Tin noi bat)". [https://moh.gov.vn/tin-noi-bat] Accessed 11 August 2020
- [4] Ministry of Agriculture and Rural Development. 2020. "Party work (Trang ch? Công tác??ng)".

[https://www.mard.gov.vn/Pages/cong-tac-dang.aspx] Accessed 11 August 2020

- [5] Ministry of Defence. 2020. "Policies". [http://www.mod.gov.vn/wps/portal/cdcs/vbhd] Accessed 11 August 2020
- [6] National Institute of Hygiene and Epidemiology. "Tin trong nu?c" [https://nihe.org.vn/danh-muc/tin-trong-nuoc] Accessed 11 August 2020
- [7] Pasteur Institute Ho Chi Minh City (PI-HCMC). "Pasteur Institute Ho Chi Minh City".

[http://www.pasteurhcm.gov.vn/article/thong-tin-cua-vien-pasteur-thanh-pho-ho-chi-minh-12.html] Accessed 11 August 2020

- [8] Nha Trang Pasteur Institute. "Nha Trang Pasteur Institute." [http://pasteur-nhatrang.org.vn/] Accessed 11 August 2020
- [9] Ministry of Health. "B? Y t?". [http://moh.gov.vn] Accessed 11 August 2020
- [10] United Nations Office at Geneva. "Available Confidence Building Measures Reports". [https://bwc-ecbm.unog.ch/state/viet-nam] Accessed 11 August 2020
- [11] Vertic BWC Legislation Database. 2020. "BWC Legislation Database". [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/v/] Accessed 13 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 publicly available evidence of national policy that requires oversight of dual use research, particularly for research with especially dangerous pathogens, toxins, and/or pathogens with pandemic potential. The National Institute for Control of Vaccine and Biologicals publishes a list of rules and regulations that address laboratory protocols and biosafety. [1] There is no mention of the oversight of dual-use research in these documents. Decree 103 of 2016 on the provisions for biosafety does not specifically address especially dangerous pathogens, but it does address laboratory requirements for biosafety level IV laboratories. [2] The Joint External Evaluation (JEE) that was completed in October/November 2016 stated that a whole-ofgovernment biosafety and biosecurity system must reduce dual use risks, but it did not note whether Vietnam is working on this. [3] The Ministry of Health, the Ministry of Agriculture and Rural Development, the Ministry of Defence and the Ministry of Science and Technology do not have publicly available evidence that there is government oversight of dual use research. [4,5,6,7] The national laboratories (National Institute of Hygiene and Epidemiology (NIHE), Pasteur Institute Ho Chi Minh City (PI-HCMC), Nha Trang Pasteur Institute, Central Highlands Institute of Hygiene and Epidemiology) do not publish information about this. [8,9,10] There is no national public health institute. [11] The VERTIC database does not have any relevant legislation. [12] Vietnam has not submitted Confidence Building Measures under the Biological Weapons Convention, and therefore does not make information available through this source. [13] A presentation from 2019 noted that the export control system in Vietnam will need to adapt to the country's increasing trade and consider dual-use and other sensitive items. [14]

- [1] National Institute for Control of Vaccine and Biologicals. 8 August 2017. "Provisions on biosafety" (Các v?n b?n quy ??nh v? An toàn sinh h?c). [http://nicvb.org.vn/an-toan-sinh-hoc/cac-van-ban-quy-dinh-ve-an-toan-sinh-hoc-c71-494.aspx]
 Accessed 11 August 2020.
- [2] Ministry of Health. Decree No. 103/2016 /ND-CP of July 1, 2016. "On Provisions on Biosafety in laboratories" (QUY ??NH V? B?O ??M AN TOàN SINH H?C T?I PHÒNG XÉT NGHI?M)". [https://thuvienphapluat.vn/van-ban/The-thao-Y-te/Decree-103-



2016-ND-CP-biosafety-laboratories-320786.aspx] Accessed 11 August 2020.

- [3] World Health Organisation (WHO). 28 October 4 November 2016. "Joint External Evaluation of IHR Core Capacities of Vietnam". [http://www.who.int/ihr/publications/WHO-WHE-CPI-2017.21/en/] Accessed 11 August 2020.
- [4] Ministry of Health. 2020. "News activity (Tin noi bat)". [https://moh.gov.vn/tin-noi-bat] Accessed 11 August 2020
- [5] Ministry of Agriculture and Rural Development. 2020. "Party work (Trang ch? Công tác??ng)".
- [https://www.mard.gov.vn/Pages/cong-tac-dang.aspx] Accessed 11 August 2020
- [6] Ministry of Defence. 2020. "Policies". [http://www.mod.gov.vn/wps/portal/cdcs/vbhd] Accessed 11 August 2020
- [7] Ministry of Science and Technology. "Legal documents." [https://www.most.gov.vn/en/Pages/LegalDocument.aspx] Accessed 11 August 2020
- [8] National Institute of Hygiene and Epidemiology. "Tin trong nu?c" [https://nihe.org.vn/danh-muc/tin-trong-nuoc] Accessed 11 August 2020
- [9] Pasteur Institute Ho Chi Minh City (PI-HCMC). "Pasteur Institute Ho Chi Minh City".
- [http://www.pasteurhcm.gov.vn/article/thong-tin-cua-vien-pasteur-thanh-pho-ho-chi-minh-12.html] Accessed 11 August 2020
- [10] Nha Trang Pasteur Institute. "Nha Trang Pasteur Institute." [http://pasteur-nhatrang.org.vn/] Accessed 11 August 2020
- [11] Ministry of Health. "B? Y t?". [http://moh.gov.vn] Accessed 11 August 2020
- [12] VERTIC. "VERTIC" [National Institute of Hygiene and Epidemiology. "Tin trong nu?c" [https://nihe.org.vn/danh-muc/tin-trong-nuoc] Accessed 11 August 2020] Accessed 11 August 2020
- [13] United Nations Office at Geneva. "Available Confidence Building Measures Reports". [https://bwc-ecbm.unog.ch/state/viet-nam] Accessed 11 August 2020
- [14] Nguyen, Nhia. 2020. Export control system of Vietnam. [https://www.omc.co.jp/outreach2018/aecs2018/pdf/3-6%20Ms.%20Nhia%20Thi%20Trong%20Nguyen Vietnam.pdf] Accessed 20 August 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 a national agency responsible for oversight of research with especially dangerous pathogens, pathogens with pandemic potential, and/or other dual use research. The Ministry of Health and the National Institute for Control of Vaccine and Biologicals are responsible for implementing and oversight of biosafety rules. [1, 2] However, publicly available documents do not address oversight of biological research with especially dangerous pathogens. The Joint External Evaluation (JEE) that was completed in 2016 did not indicate any department of government that is responsible for research with particularly dangerous pathogens. [3] The Ministry of Agriculture and Rural Development, the Ministry of Defence and the Ministry of Science and Technology do not have publicly available evidence that there is government oversight of dual use research. [4,5,6] The national laboratories (National Institute of Hygiene and Epidemiology (NIHE), Pasteur Institute Ho Chi Minh City (PI-HCMC), Nha Trang Pasteur Institute, Central Highlands Institute of Hygiene and Epidemiology) do not publish information about this. [7,8,9] There is no national public health institute. [10] Vietnam has not submitted Confidence Building Measures under the Biological Weapons Convention, and therefore does not make information available through this source. [11] The Vertic BWC Legislation Database does not have information about this. [12]

- [1] Ministry of Health. Decree No. 103/2016 /ND-CP of July 1, 2016. "On Provisions on Biosafety in laboratories" (QUY ??NH V? B?O ??M AN TOàN SINH H?C T?I PHÒNG XÉT NGHI?M)". [https://thuvienphapluat.vn/van-ban/The-thao-Y-te/Decree-103-2016-ND-CP-biosafety-laboratories-320786.aspx] Accessed 11 August 2020.
- [2] National Institute for Control of Vaccine and Biologicals. 8 August 2017. "Provisions on biosafety" (Các v?n b?n quy ??nh



v? An toàn sinh h?c). [http://nicvb.org.vn/an-toan-sinh-hoc/cac-van-ban-quy-dinh-ve-an-toan-sinh-hoc-c71-494.aspx] Accessed 11 August 2020.

- [3] World Health Organisation (WHO). 28 October 4 November 2016. "Joint External Evaluation of IHR Core Capacities of Vietnam". [http://www.who.int/ihr/publications/WHO-WHE-CPI-2017.21/en/] Accessed 11 August 2020.
- [4] Ministry of Agriculture and Rural Development. 2020. "Party work (Trang ch? Công tác d?ng)".
- [https://www.mard.gov.vn/Pages/cong-tac-dang.aspx] Accessed 11 August 2020.
- [5] Ministry of Defence. 2020. "Policies". [http://www.mod.gov.vn/wps/portal/cdcs/vbhd] Accessed 11 August 2020.
- [6] Ministry of Science and Technology. "Legal documents." [https://www.most.gov.vn/en/Pages/LegalDocument.aspx] Accessed 11 August 2020.
- [7] National Institute of Hygiene and Epidemiology. "Tin trong nu?c" [https://nihe.org.vn/danh-muc/tin-trong-nuoc] Accessed 11 August 2020
- [8] Pasteur Institute Ho Chi Minh City (PI-HCMC). "Pasteur Institute Ho Chi Minh City".
- [http://www.pasteurhcm.gov.vn/article/thong-tin-cua-vien-pasteur-thanh-pho-ho-chi-minh-12.html] Accessed 11 August 2020
- [9] Nha Trang Pasteur Institute. "Nha Trang Pasteur Institute." [http://pasteur-nhatrang.org.vn/] Accessed 11 August 2020
- [10] Ministry of Health. "Homepage". [http://moh.gov.vn] Accessed 11 August 2020
- [11] United Nations Office at Geneva. "Available Confidence Building Measures Reports". [https://bwc-ecbm.unog.ch/state/viet-nam] Accessed 11 August 2020
- [12] Vertic BWC Legislation Database. 2020. "BWC Legislation Database". [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/v/] Accessed 13 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

There is no public evidence of a national legislation or policy addressing the screening of synthesized DNA before it is sold. The main piece of legislation for synthesized DNA and genetically modified organisms is Decree No. 69/2010/ND-CP on biological safety for genetically modified organisms, genetic specimens and products of genetically modified organisms. The law is written in a way that includes provisions for non-plant life (e.g., animal, virus, bacteria), but it does not explicitly require the screening of synthesized DNA before a sale. [1] The Ministry of Science and Technology, which is responsible for genetically-modified organisms, does not have additional information on this. [2] The Ministry of Health, Ministry of Agriculture and Rural Development and the Ministry of Defence do not have publicly available evidence that there is government oversight of the sale of synthesized DNA. [3,4,5] The national laboratories (National Institute of Hygiene and Epidemiology (NIHE), Pasteur Institute Ho Chi Minh City (PI-HCMC), Nha Trang Pasteur Institute, Central Highlands Institute of Hygiene and Epidemiology) do not publish information about this. [6,7,8] There is no national public health institute. [9] The VERTIC database does not have any relevant legislation. [10] Vietnam has not submitted Confidence Building Measures under the Biological Weapons Convention, and therefore does not make information available through this source. [11]

[1] Government of Vietnam. Decree No. 69/2010 / ND-CP of 21 June 2010. "On biological safety for genetically modified organisms, genetic specimens and products of genetically modified organisms". [https://thuvienphapluat.vn/van-ban/Tainguyen-Moi-truong/Nghi-dinh-69-2010-ND-CP-an-toan-sinh-hoc-sinh-vat-bien-doi-gen-mau-v-107700.aspx] Accessed 11 August 2020.



- [2] Ministry of Science and Technology. "Legal documents." [https://www.most.gov.vn/en/Pages/LegalDocument.aspx] Accessed 11 August 2020.
- [3] Ministry of Health. 2020. "News activity (Tin noi bat)". [https://moh.gov.vn/tin-noi-bat] Accessed 11 August 2020.
- [4] Ministry of Agriculture and Rural Development. 2020. "Party work". [https://www.mard.gov.vn/Pages/cong-tac-dang.aspx] Accessed 11 August 2020.
- [5] Ministry of Defence. 2020. "Policies". [http://www.mod.gov.vn/wps/portal/cdcs/vbhd] Accessed 11 August 2020.
- [6] National Institute of Hygiene and Epidemiology. "Tin trong nuoc" [https://nihe.org.vn/danh-muc/tin-trong-nuoc] Accessed 11 August 2020
- [7] Pasteur Institute Ho Chi Minh City (PI-HCMC). "Pasteur Institute Ho Chi Minh City".
- [http://www.pasteurhcm.gov.vn/article/thong-tin-cua-vien-pasteur-thanh-pho-ho-chi-minh-12.html] Accessed 11 August 2020
- [8] Nha Trang Pasteur Institute. "Nha Trang Pasteur Institute." [http://pasteur-nhatrang.org.vn/] Accessed 11 August 2020
- [9] Ministry of Health. "Homepage". [http://moh.gov.vn] Accessed 11 August 2020
- [10] VERTIC. "VERTIC" [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/v/] Accessed 9 May 2021
- [11] United Nations Office at Geneva. "Available Confidence Building Measures Reports". [https://bwc-ecbm.unog.ch/state/viet-nam] Accessed 9 May 2021

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: 1

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: 2

There is publicly available evidence that the national laboratory system has the capacity to conduct diagnostic tests for at least 5 of the 10 WHO-defined core tests. The Joint External Evaluation (JEE) for Vietnam, conducted in October/November 2016, found that the National Institute of Hygiene and Epidemiology (NIHE) and Pasteur Institute in Ho Chi Minh City (PI-HCMC) are the laboratories in the national system that can perform diagnostic testing for the six core diseases required by IHR (2005) and the four priority diseases, but it does not specify the tests and priority diseases. However, according to the website of the Pasteur Institute in Ho Chi Minh City, it has the capacity to conduct polymerase chain reaction (PCR) testing for Influenza virus (flu); virus culture for poliovirus (polio); serology for HIV; microscopy for mycobacterium tuberculosis (tuberculosis/TB); and rapid diagnostic testing for plasmodium spp. (malaria). [2,3,4,5,6]

- [1] World Health Organisation (WHO). 28 October 4 November 2016. "Joint External Evaluation of IHR Core Capacities of Vietnam". [http://www.who.int/ihr/publications/WHO-WHE-CPI-2017.21/en/] Accessed 11 August 2020.
- [2] Pasteur Institute in Ho Chi Minh City (PI-HCMC). "B?NH DO VI RÚT GÂY RA H?I CH?NG SUY GI?M MI?N D?CH". [http://www.pasteurhcm.gov.vn/news/benh-do-vi-rut-gay-ra-hoi-chung-suy-giam-mien-dich-mac-phai-o-nguoi-hivaids-84.html]. Accessed 11 August 2020.
- [3] Pasteur Institute in Ho Chi Minh City (PI-HCMC). "B?NH LAO PH?I (Tuberculosis)".
- $[http://www.pasteurhcm.gov.vn/news/benh-lao-phoi-89.html]. \ Accessed \ 11 \ August \ 2020.$
- [4] Pasteur Institute in Ho Chi Minh City (PI-HCMC). "B?NH B?I LI?T (Poliomyelitis)".
- [http://www.pasteurhcm.gov.vn/news/benh-bai-liet-51.html]. Accessed 11 August 2020.
- [5] Pasteur Institute in Ho Chi Minh City (PI-HCMC). "B?NH CÚM (Influenza)". [http://www.pasteurhcm.gov.vn/news/benhcum-86.html]. Accessed 18 January 2019.
- [6] Pasteur Institute in Ho Chi Minh City (PI-HCMC). "B?NH S?T RÉT (Malaria)". [http://www.pasteurhcm.gov.vn/news/benh-sot-ret-95.html]. Accessed 11 August 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

Vietnam has a national plan for testing that is specific to COVID-19, but there is no publicly available evidence that there is a plan that can be used for multiple disease outbreaks. The testing plan for COVID-19 is a national priority, led by the Prime Minister and implemented locally by the People's Committees in provinces and centrally-run cities. In March 2020, the Ministry of Health (MOH) issued a circular that detailed initial testing plans, which intended to test anyone who was considered at risk, i.e. people who had entered from countries with COVID-19 outbreaks. [1] In April 2020, the Prime Minister issued Decision No. 2245/QD-BYT, which describes the legal basis for testing and prevention specifically for the COVID-19 epidemic. The Decision states that Vietnam has the capacity to test up to 27,000 samples a day and directs affiliates within and outside the health sector to invest in equipment, facilities, human resources and biologicals for local laboratories to ensure testing for SAR-CoV-2. [2] There is no additional information from the MOH, Ministry of Agriculture and national laboratories. [3,4,5,6,7]

- [1] Ministry of Health. March 2020. About sampling for COVID-19. [https://thuvienphapluat.vn/cong-van/the-thao-y-te/Cong-van-1271-BYT-DP-2020-lay-mau-xet-nghiem-COVID-19-437461.aspx]. Accessed 14 August 2020
- [2] Ministry of Health. April 2020. Decision on approval of a test plan for detection of SARS-COV-2 infection in the COVID-19 stage. [https://thuvienphapluat.vn/van-ban/The-thao-Y-te/Quyet-dinh-2245-QD-BYT-2020-ke-hoach-xet-nghiem-nhiem-SARS-COV-2-trong-giai-doan-Covid-19-441946.aspx] Accessed 14 August 2020
- [3] Ministry of Health. 2020. "News activity (Tin noi bat)". [https://moh.gov.vn/tin-noi-bat] Accessed 11 August 2020
- [4] Ministry of Agriculture and Rural Development. 2020. "Cong Tac Dang". [https://www.mard.gov.vn/Pages/cong-tac-dang.aspx] Accessed 11 August 2020
- [5] National Institute of Hygiene and Epidemiology. "Tin trong nouc" [https://nihe.org.vn/danh-muc/tin-trong-nuoc] Accessed 11 August 2020
- [6] Pasteur Institute Ho Chi Minh City (PI-HCMC). "Pasteur Institute Ho Chi Minh City".
- [http://www.pasteurhcm.gov.vn/article/thong-tin-cua-vien-pasteur-thanh-pho-ho-chi-minh-12.html] Accessed 11 August 2020
- [7] Nha Trang Pasteur Institute. "Nha Trang Pasteur Institute." [http://pasteur-nhatrang.org.vn/] Accessed 11 August 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 laboratories that serve as reference facilities are accredited. The Joint External Evaluation (JEE) that was conducted in 2016 noted that the National Institute of Hygiene and Epidemiology (NIHE) and Pasteur Institute in Ho Chi Minh City (PI-HCMC) are national laboratories that serve as reference facilities. NIHE and PI-HCMC are accredited to international standards (e.g., ISO) and enrolled in External Quality Assurance (EQA) programmes provided by WHO for selected pathogens, such as dengue, influenza and Vibrio cholerae. [1] The Centers for Disease Control and Prevention of the United States confirmed that PI-HCMC has an ISO 15189 certification and it offers regular training to staff. [2, 3] According to The Ministry of Health, in 2014, there were 30 regional laboratories and 3 medical testing centres with the ISO 15189 accreditation. [4]

[1] World Health Organisation (WHO). 28 October – 4 November 2016. "Joint External Evaluation of IHR Core Capacities of Vietnam". [http://www.who.int/ihr/publications/WHO-WHE-CPI-2017.21/en/] Accessed 12 August 2020.



- [2] Centers for Disease Control and Prevention. "Partnering with Pasteur Institute of Ho Chi Minh City to Enhance Regional Capacity to Prevent, Detect, Monitor, and Respond to the HIV/AIDS Epidemic in Vietnam under the President's Emergency Plan for AIDS Relief (PEPFAR)". [https://www.cdc.gov/globalaids/global-hiv-aids-at-cdc/fy2015/CDC-RFA-GH15-1595.pdf] Accessed 12 August 2020.
- [3] Pasteur Institute. "Short term training". [http://training.pasteurhcm.gov.vn/news/tong-quan-ve-quan-ly-chat-luong-phong-xet-nghiem-theo-iso-151892012-179.html] Accessed 12 August 2020
- [4] The Ministry of Health. 14 October 2014. "The country has 30 testing laboratories of ISO 15189" (C? n??c có 30 phòng xét nghi?m ??t tiêu chu?n ISO 15189). [https://baotintuc.vn/tin-tuc/ca-nuoc-co-30-phong-xet-nghiem-dat-tieu-chuan-iso-15189-20141015161549568.htm] Accessed 12 August 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 laboratories in Vietnam that serve as a reference facilities are subject to external quality assurance review. The Joint External Evaluation (JEE) that was conducted in 2016 noted that the National Institute of Hygiene and Epidemiology (NIHE) and Pasteur Institute in Ho Chi Minh City (PI-HCMC) are national laboratories that serve as reference facilities. NIHE and PI-HCMC are accredited to international standards (e.g., ISO) and enrolled in External Quality Assurance (EQA) programmes provided by WHO for selected pathogens, such as dengue, influenza and Vibrio cholerae. [1] The HIV National Reference Laboratory of NIHE has implemented an external quality control programme with support from the Centers for Disease Control and Prevention (CDC) and the National Institutes of Health from Thailand and the US. [2] In addition, the Centers for Disease Control and Prevention of the United States confirmed that PI-HCMC has an ISO 15189 certification and it offers regular training to staff. [3, 4] ISO 15189 certification requires external quality assurance reviews. [5]

- [1] World Health Organisation (WHO). 28 October 4 November 2016. "Joint External Evaluation of IHR Core Capacities of Vietnam". [http://www.who.int/ihr/publications/WHO-WHE-CPI-2017.21/en/] Accessed 12 August 2020.
- [2] National Institute of Hygiene and Epidemiology. "External and internal quality control program (EQA and IQC) for serological HIV testing of National Institute of Hygiene and Epidemiology (NIHE)". [http://nihe.org.vn/en/news-events/news/external-and-internal-quality-control-program-eqa-and-iqc-for-serological-hiv-testing-of-national-institute-of-hygiene-and-epidemiology-nihe-c12520i14853.htm] Accessed 12 August 2020.
- [3] Centers for Disease Control and Prevention. "Partnering with Pasteur Institute of Ho Chi Minh City to Enhance Regional Capacity to Prevent, Detect, Monitor, and Respond to the HIV/AIDS Epidemic in Vietnam under the President's Emergency Plan for AIDS Relief (PEPFAR)". [https://www.cdc.gov/globalaids/global-hiv-aids-at-cdc/fy2015/CDC-RFA-GH15-1595.pdf] Accessed 12 August 2020.
- [4] Pasteur Institute. "Short term training". [http://training.pasteurhcm.gov.vn/news/tong-quan-ve-quan-ly-chat-luong-phong-xet-nghiem-theo-iso-151892012-179.html] Accessed 12 August 2020.
- [5] World Health Organisation. "Content Sheet 10-1: Overview of External Quality Assessment (EQA)". [http://www.who.int/ihr/training/laboratory_quality/10_b_eqa_contents.pdf]. Accessed 12 August 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: 0

There is evidence that Vietnam has a specimen transport system, but it is not described in publicly available documents and there is insufficient evidence of nationwide coverage. The Joint External Evaluation (JEE) for Vietnam that was conducted in October and November 2016 concluded that guidelines and standard operating procedures (SOPs) for specimen collection and transportation from the field to national and regional laboratories are available. The JEE indicates that Vietnam's transport system covers 50 to 80 per cent of the country. However, the JEE also concluded that SOPs need to be approved and endorsed and better training in necessary in intermediate level and district laboratories and scorde the country a 3, which means that attributes of a capacity are in place; however, there is the issue of sustainability, measurement or funding. [1] The government also publishes Circular 43/2011/TT-BYT, a policy from 2011 that introduced regulation on the management of infectious disease substances. The circular covers collection, preservation, packing, transportation, use, exchange and destruction. Specifically, the circular describes documentation, packaging requirements, amount and time limits, and procedures for receiving samples, but it does not mention couriers. [2] The national laboratories (National Institute of Hygiene and Epidemiology (NIHE), Pasteur Institute Ho Chi Minh City (PI-HCMC), Nha Trang Pasteur Institute, Central Highlands Institute of Hygiene and Epidemiology) do not publish information about this. [3,4,5] There is no national public health institute. [6]

- [1] World Health Organisation (WHO). 28 October 4 November 2016. "Joint External Evaluation of IHR Core Capacities of Vietnam". [http://www.who.int/ihr/publications/WHO-WHE-CPI-2017.21/en/] Accessed 12 August 2020.
- [2] The Ministry of Health. 2011. Circulars 43/2011/TT-BYT of 5 December 2011. "On The management of specimens of infectious diseases" (QUY ??NH CH? ?? QU?N Lý M?U B?NH PH?M B?NH TRUY?N NHI?M). [https://thuvienphapluat.vn/van-ban/The-thao-Y-te/Thong-tu-43-2011-TT-BYT-che-do-quan-ly-mau-benh-pham-benh-truyen-nhiem-132662.aspx] Accessed 12 August 2020.
- [3] National Institute of Hygiene and Epidemiology. "Tin trong nu?c" [https://nihe.org.vn/danh-muc/tin-trong-nuoc] Accessed 11 August 2020
- [4] Pasteur Institute Ho Chi Minh City (PI-HCMC). "Pasteur Institute Ho Chi Minh City".
- [http://www.pasteurhcm.gov.vn/article/thong-tin-cua-vien-pasteur-thanh-pho-ho-chi-minh-12.html] Accessed 12 August 2020.
- [5] Nha Trang Pasteur Institute. "Nha Trang Pasteur Institute." [http://pasteur-nhatrang.org.vn/] Accessed 12 August 2020
- [6] Ministry of Health. "Homepage". [http://moh.gov.vn] Accessed 12 August 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 evidence of a plan in place to scale up testing during an outbreak. According to Decision No. 2245 / QD-BYT dated 22/4/2020 of the Ministry of Health, qualified laboratories must perform tests without waiting for evaluation and evaluation by the Institute of Hygiene and Epidemiology, Pasteur Institute. Units wishing to perform confirmatory tests should contact the Institute of Hygiene and Epidemiology, Pasteur Institute for evaluation and confirmation. Laboratories certified by the Ministry of Health or the Institute of Hygiene and Epidemiology, Pasteur Institute do not need to send samples to other laboratories to confirm in case of positive results. In practice, these measures created the capacity to test 27,000 samples [1] A June 2020 report on the Vietnamese response to COVID-19 confirms that Vietnam has had plans in place for scaling up testing since 2016. [2]

[1] Ministry of Health. April 2020. Decision on approval of a test plan for detection of SARS-COV-2 infection in the COVID-19 stage. [https://thuvienphapluat.vn/van-ban/The-thao-Y-te/Quyet-dinh-2245-QD-BYT-2020-ke-hoach-xet-nghiem-nhiem-SARS-COV-2-trong-giai-doan-Covid-19-441946.aspx] Accessed 14 August 2020.

[2] Pollack, Todd, et al. 2020. Emerging COVID-19 success story: Vietnam's commitment to containment. [https://ourworldindata.org/covid-exemplar-vietnam] Accessed 20 August 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: 1

There is an event-base surveillance unit within the national emergency operations centre, but no evidence that the data is being analysed on a daily basis. The General Department of Preventive Medicine (GDPM), an agency within the Ministry of Health, provides public health policy and the strategic direction of public health activities, including surveillance. The GDPM oversees several surveillance systems that generate data from various sources. Event-based surveillance is fragmented and can impede the timely detection of outbreaks. [1] In 2017, the Ministry of Health inaugurated the first Emergency Operations Centre (EOC) at the Pasteur Institute of Ho Chi Minh City (PI-HCMC). The EOC has received support from the US Centers for Diseases Control and Prevention (CDC) to set up and implement event-based surveillance. The EOC staff collects, monitors and analyses surveillance data, conducts epidemiological investigations, and coordinates units within and outside the health sector. [2] In 2016, the CDC has also supported the launch of pilot event-based surveillance programmes in 4 of Vietnam's 63 provinces. The pilot resulted in early detection and reporting of outbreaks, better collaboration between the healthcare facilities and government, and more awareness of community surveillance and reporting. [3] There is no evidence of eventbased surveillance in the Joint External Evaluation for Vietnam, conducted in October/November 2016. [4] A December 2017 government report confirms that an event-based surveillance has been developed and the government is working on processes for collecting and verifying information from the community. However, there is no evidence that data are analysed daily. [5] There is no additional information from the Ministry of Health, the World Health Organization or the Global Health Security Agenda. [6,7,8]

[1] Centers for Disease Control and Prevention. 2017. "Sustainable Model for Public Health Emergency Operations Centers for Global Settings" [https://wwwnc.cdc.gov/eid/article/23/13/17-0435_article] Accessed 20 August 2020.

[2] US Embassy. 23 August 2017. "Vietnamese Ministry of Health, US Department of Health and Human Services inaugurated



the Southern Public Health Emergency Response Facility" (B? Y t? Vi?t Nam, B? Y t? và D?ch v? Con ng??i Hoa K? Khánh thành V?n phòng ?áp ?ng Kh?n c?p S? ki?n Y t? Công c?ng Khu v?c Phía Nam). [https://vn.usembassy.gov/vi/bo-y-te-viet-nam-va-bo-y-te-va-dich-vu-con-nguoi-hoa-ky-khanh-thanh-van-phong-dap-ung-khan-cap-su-kien-y-te-cong-cong-khu-vuc-phia-nam-gop-phan-dam/] Accessed 12 August 2020.

- [3] Centers for Disease Control and Prevention. September 2018. "Event-Based Surveillance at Community and Healthcare Facilities, Vietnam, 2016-2017". [https://wwwnc.cdc.gov/eid/article/24/9/17-1851 article] Accessed 12 August 2020.
- [4] World Health Organisation (WHO). 28 October 4 November 2016. "Joint External Evaluation of IHR Core Capacities of Vietnam". [http://www.who.int/ihr/publications/WHO-WHE-CPI-2017.21/en/] Accessed 12 August 2020.
- [5] One Health Partnership for Zoonosis. 2018. "Update on overall progress as of December 2017".
- [http://onehealth.org.vn/documents/ohsp-update-report-for-the-2018-one-health-forum/211.html] Accessed 12 August 2020.
- [6] Ministry of Health. "Homepage". [http://moh.gov.vn/sites/en-us/pages/home.aspx] Accessed 12 August 2020.
- [7] WHO Vietnam. "Media Center". [http://www.wpro.who.int/vietnam/mediacentre/en/] Accessed 12 August 2020.
- [8] Global Health Security Agenda. "Homepage". [https://www.ghsagenda.org/] Accessed 12 August 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 Vietnam reported a potential public health emergency of international concern (PHEIC) to the World Health Organization (WHO) within the last two years.

Vietnam has reported cases of COVID-19 to the WHO before January 30 2020 when it was declared by the WHO as a PHEIC. [1] There is no record from the WHO Disease Outbreak New page that Vietnam has reported any additional potential PHEICs within the last two years. [2] The Ministry of Health generally and the General Department of Preventative Medicine do not have information about this. [3,4] The national laboratories (National Institute of Hygiene and Epidemiology (NIHE), Nha Trang Pasteur Institute, Central Highlands Institute of Hygiene and Epidemiology) do not publish additional information about this. [5,6] There is no national public health institute. [7] Vietnam does file weekly situation reports with the WHO in response to the COVID-19 pandemic. [8]

- [1] World Health Organization. "Novel Coronavirus (2019-nCoV) Situation Report 10" 30 January 2020. [https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200130-sitrep-10-ncov.pdf?sfvrsn=d0b2e480_2]
- [2] WHO. 2021. "Emergency preparedness response Vietnam". [https://www.who.int/csr/don/archive/country/vnm/en/] Accessed 9 May 2021.
- [3] Ministry of Health. 2020. "Activity news". [https://moh.gov.vn/hoat-dong-cua-lanh-dao-bo] Accessed 9 May 2021.
- [4] General Department of Preventative Medicine. 2020. "Infectious diseases." [http://vncdc.gov.vn/vi/cac-hoat-dong] Accessed 9 May 2021.
- [5] National Institute of Hygiene and Epidemiology. "About us" [https://nihe.org.vn/gioi-thieu#gioi-thieu-chung] Accessed 9 May 2021
- [6] Nha Trang Pasteur Institute. "Nha Trang Pasteur Institute." [http://pasteur-nhatrang.org.vn/] Accessed 9 May 2021
- [7] Ministry of Health. "Site diagram". [https://moh.gov.vn/so-o-trang] Accessed 9 May 2021
- [8] WHO. 2021. "Situation reports in Vietnam", [https://www.who.int/vietnam/emergencies/coronavirus-disease-(covid-19)-



in-viet-nam/covid-19-situation-reports-in-viet-nam] Accessed 9 May 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 Vietnamese government operates an electronic reporting surveillance system at both the national and sub-national level. Since 2011, electronic reporting using web-based software has been in place and regulated by Circular No. 48/2010/TT-BYT. [1,2] By 2014, the system has been implemented in all 63 provinces at the district level, but only in some provinces at the commune level. [1] In 2015, the Ministry of Health issued Circular No. 54/2015/TT-BYT on surveillance and reporting of diseases and the transmission of diseases. [3] Circular 54 describes the implementation of the electronic Communicable Diseases System (eCDS), which tracks 42 nationally notifiable diseases through a web-based interface. [1,3]

- [1] World Health Organisation (WHO). 28 October 4 November 2016. "Joint External Evaluation of IHR Core Capacities of Vietnam". [http://www.who.int/ihr/publications/WHO-WHE-CPI-2017.21/en/] Accessed 12 August 2020.
- [2] Ministry of Health. Circular No. 48/2010/TT-BYT of 31 December 2010. "On information and reporting of contagious diseases" (H??ng d?n ch? ?? khai báo, thông tin, báo cáo b?nh truy?n nhi?m).
- [http://vanban.chinhphu.vn/portal/page/portal/chinhphu/hethongvanban?class_id=1&mode=detail&document_id=99852] Accessed 12 August 2020.
- [3] Ministry of Health. Circular No. 54/2015/TT-BYT of 28 December 2015. "on surveillance and reporting of diseases and the transmission of diseases" (H??NG D?N CH? ?? THÔNG TIN BÁO CÁO VÀ KHAI BÁO B?NH, D?CH B?NH TRUY?N NHI?M). [https://thuvienphapluat.vn/van-ban/The-thao-Y-te/Thong-tu-54-2015-TT-BYT-che-do-thong-tin-bao-cao-va-khai-bao-benh-dich-benh-truyen-nhiem-299842.aspx] Accessed 12 August 2020.

2.3.2b

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

Yes = 1, No = 0

Current Year Score: 0

There is insufficient evidence that Vietnam has an electronic reporting surveillance system that collects ongoing or real-time laboratory data. Although there are no publicly available documents on government websites that describe electronic surveillance, there is evidence that systems are in place and allow for real-time reporting. A report from 2017 confirms that hospitals are required to report notifiable diseases within 24 hours and these are aggregated electronically to Communicable Disease Surveillance software. [1] The system that was in place in the beginning of 2020 did not allow for real-time reporting. Recognizing the severity of COVID-19, the Ministry of Health requested assistance from the Centers for Disease Control and Prevention (CDC) and PATH, a health non-profit based in Seattle, to develop a real-time reporting system. These organisations collaborated with Viettel, a local IT company, to develop a real-time reporting system in nine days. [2] Reports from Vietnam to WHO have time stamps; for example, the latest data has been recorded was from 20 August 2020, 17:30 am ICT. [3] Real time testing data and the data set are also available from the General Department of Preventative Medicine on a daily basis. [4]



[1] Balajee, S. et al. 2017. "Sustainable Model for Public Health Emergency Operations Centers for Global Settings" [https://wwwnc.cdc.gov/eid/article/23/13/17-0435_article] Accesssed 20 August 2020.

[2] PATH. 2020. "How COVID-19 accelerated the shift from paper forms to digital data in Vietnam".

[https://www.path.org/articles/covid-19-paper-to-digital-vietnam/] Accessed 13 September 2020.

[3] WHO. August 2020. Viet Nam COVID-19 Situation Report #4 13 August 2020. [https://www.who.int/docs/default-source/wpro---documents/countries/viet-nam/covid-19/vnm-moh-who-covid-19-sitrep4.pdf?sfvrsn=38270192_2]. Accessed 17 August 2020.

[4] General Department of Preventative Medicine. 2020. "report for 20 August 2020. [http://vncdc.gov.vn/vi/phong-chong-dich-benh-viem-phoi-cap-ncov/14025/ban-tin-cap-nhat-dich-benh-covid-19-ngay-20-8-2020] Accessed 20 August 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: 1

Electronic health records are not yet commonly in use, but the government has set the goal to have 90% coverage by 2025. The Ministry of Health (MOH) issued circular 54/2017/TT-BYT on the assessment criteria for information technology applications at healthcare facilities across Vietnam. [1] The MOH is also developing a plan to implement smart healthcare through 2025 that includes electronic medical health records. [2] As of mid-2019, there were reportedly 24 provinces in Vietnam in the process of implementing electronic health records. [1]

[1] Healthcare IT news. 2020. Vietnam to deploy EHR nationwide in July. [https://www.healthcareitnews.com/news/asia-pacific/vietnam-deploy-ehr-nationwide-july] Accessed 20 August 2020.

[2] Austrade. July 2019. Digital Health in Vietnam.

[https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=2ahUKEwjj8ZbZua3rAhXGIIsKHYUfB9oQFjAXegQICRAB&url=https%3A%2F%2Fwww.austrade.gov.au%2FArticleDocuments%2F4569%2FDigital%2520Health%2520in%2520Vietnam%2520Report.pdf.aspx&usg=AOvVaw32y7wdE0cT7C7KJDaoXzxD]. Accessed 20 August 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

The national public health system in Vietnam does not have access to electronic health records (EHRs) of individuals because they are not yet widely in use. The government has announced that it is drafting legislation that aims to implements EHRs in Vietnam by 2020. [1] International organisations that are active in Vietnam has noted that interoperability between information sharing systems is an issue that needs attention and improvement in order ICTs to promote efficiency in health care. [2,3] The Ministry of Health does not have additional information about this. [4] The national laboratories (National Institute of Hygiene and Epidemiology (NIHE), Nha Trang Pasteur Institute, Central Highlands Institute of Hygiene and



Epidemiology) do not publish additional information about this. [5,6] There is no national public health institute. [7]

- [1] Vietnam News. 15 August 2018. "MoH plans to digitise all VN medical records".
- [http://vietnamnews.vn/society/health/463804/moh-plans-to-digitise-all-vn-medical-records.html#AxyWpygQuQdSbz7Z.99] Accessed on 12 August 2020.
- [2] World Health Organisation (WHO). 28 October 4 November 2016. "Joint External Evaluation of IHR Core Capacities of Vietnam". [http://www.who.int/ihr/publications/WHO-WHE-CPI-2017.21/en/] Accessed 12 August 2020.
- [3] Asian Development Bank. 7 April 2017. "Digital health in Viet Nam not if, but when". [https://blogs.adb.org/blog/digital-health-viet-nam-not-if-when] Accessed 12 August 2020.
- [4] Ministry of Health. 2020. "Activity news". [https://moh.gov.vn/hoat-dong-cua-lanh-dao-bo] Accessed 13 September 2020.
- [5] National Institute of Hygiene and Epidemiology. "About us" [https://nihe.org.vn/gioi-thieu#gioi-thieu-chung] Accessed 13 September 2020
- [6] Nha Trang Pasteur Institute. "Nha Trang Pasteur Institute." [http://pasteur-nhatrang.org.vn/] Accessed 13 September 2020
- [7] Ministry of Health. "Site diagram". [https://moh.gov.vn/so-o-trang] Accessed 13 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 public evidence that the government has adopted data standards to ensure that data is comparable. The national public health system in Vietnam does not have access to electronic health records (EHRs) of individuals because they are not yet in use. The government has announced that it is drafting legislation that aims to implements EHRs in Vietnam by 2020. [1] International organisations that are active in Vietnam have noted that planning for interoperability between information sharing systems remains an issue. [2,3] The Ministry of Health does not have additional information about this. [4] The national laboratories (National Institute of Hygiene and Epidemiology (NIHE), Nha Trang Pasteur Institute, Central Highlands Institute of Hygiene and Epidemiology) do not publish additional information about this. [5,6] There is no national public health institute. [7]

- [1] Vietnam News. 15 August 2018. "MoH plans to digitise all VN medical records".
- [http://vietnamnews.vn/society/health/463804/moh-plans-to-digitise-all-vn-medical-records.html#AxyWpygQuQdSbz7Z.99] Accessed on 12 August 2020.
- [2] World Health Organisation (WHO). 28 October 4 November 2016. "Joint External Evaluation of IHR Core Capacities of Vietnam". [http://www.who.int/ihr/publications/WHO-WHE-CPI-2017.21/en/] Accessed 12 August 2020.
- [3] Asian Development Bank. 7 April 2017. "Digital health in Viet Nam not if, but when". [https://blogs.adb.org/blog/digital-health-viet-nam-not-if-when] Accessed 12 August 2020.
- [4] Ministry of Health. 2020. "Activity news". [https://moh.gov.vn/hoat-dong-cua-lanh-dao-bo] Accessed 13 September 2020.
- [5] National Institute of Hygiene and Epidemiology. "About us" [https://nihe.org.vn/gioi-thieu#gioi-thieu-chung] Accessed 13 September 2020
- [6] Nha Trang Pasteur Institute. "Nha Trang Pasteur Institute." [http://pasteur-nhatrang.org.vn/] Accessed 13 September 2020
- [7] Ministry of Health. "Site diagram". [https://moh.gov.vn/so-o-trang] Accessed 13 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 limited evidence of established mechanisms at the relevant ministries responsible for animal, human and wildlife surveillance to share data. In 2016, the One Health Partnership was formed with 27 local and international agencies to multisectoral coordination of all activity related to zoonotic diseases. The Joint External Evaluation (JEE) for Vietnam, conducted in October/November 2016, found that government agencies in charge of human and animal health had identified five priority zoonotic diseases and developed disease-specific surveillance systems and contingency plans. However, data sharing and coordinated response plans are limited and there is no additional information about the data that is shared. [1] The One Health Partnership has surveillance systems for influenza and rabies that include live bird and swine markets, but does not describe the type of data shared. [2] There is no additional evidence from the Ministries of Health and Agriculture. [3,4]

[1] World Health Organisation (WHO). 28 October – 4 November 2016. "Joint External Evaluation of IHR Core Capacities of Vietnam". [http://www.who.int/ihr/publications/WHO-WHE-CPI-2017.21/en/] Accessed 12 August 2020.

[2] Ministry of Health and Ministry of Agriculture and Rural Development. December 2016. "The Vietnam One Health Strategic Plan for Zoonotic Diseases 2016 – 2020".

[http://onehealth.org.vn/upload/upload/National%20One%20Health%20Strategic%20Plan%20for%20Zoonotic%20Diseases_ EN.pdf] Accessed 12 August 2020.

[3] Ministry of Health. "B? Y t?".

[http://moh.gov.vn/pages/index.aspx?ReturnUrl=%2f_layouts%2fAuthenticate.aspx%3fSource%3d%252F&Source=%2F] Accessed 12 August 2020.

[4] Ministry of Agriculture and Rural Development. "Party work". [https://www.mard.gov.vn/Pages/cong-tac-dang.aspx] Accessed 12 August 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 evidence that the government has systems to keep track of de-identified health surveillance data on infectious diseases, but the data are not publicly available and therefore the frequency of the data cannot be verified. The Centers for Disease Control and Prevention (CDC), the Oxford University Clinical Research Unit, and One Health officials confirm that de-identified health surveillance is in place to track infectious diseases in a timely manner. [1,2,3] However, the Ministry of Health generally and the General Department of Preventative Medicine do not have information about this. [4,5] The national laboratories (National Institute of Hygiene and Epidemiology (NIHE), Nha Trang Pasteur Institute, Central Highlands Institute of Hygiene and Epidemiology) do not publish additional information about this. [6,7] There is no national public



health institute. [8]

- [1] Centers for Disease Control and Prevention (CDC). 2020. "Global health Vietnam".
- [https://www.cdc.gov/globalhealth/countries/vietnam/default.htm] Accessed 13 September 2020.
- [2] Oxford University Clinical Research Unit. 2020. "Vietnam". [https://www.tropicalmedicine.ox.ac.uk/research/oucru]. Accessed 13 September 2020.
- [3] NOVA. 2015. "How Vietnam Mastered Infectious Disease Control". [https://www.pbs.org/wgbh/nova/article/one-health-vietnam/] Accessed 13 September 2020.
- [4] Ministry of Health. 2020. "Activity news". [https://moh.gov.vn/hoat-dong-cua-lanh-dao-bo] Accessed 13 September 2020.
- [5] General Department of Preventative Medicine. 2020. "Infectious diseases." [http://vncdc.gov.vn/vi/cac-hoat-dong] Accessed 13 September 2020.
- [6] National Institute of Hygiene and Epidemiology. "About us" [https://nihe.org.vn/gioi-thieu#gioi-thieu-chung] Accessed 13 September 2020
- [7] Nha Trang Pasteur Institute. "Nha Trang Pasteur Institute." [http://pasteur-nhatrang.org.vn/] Accessed 13 September 2020
- [8] Ministry of Health. "Site diagram". [https://moh.gov.vn/so-o-trang] Accessed 13 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

Data on the number of Covid-19 infections and deaths are updated daily on the website of the Ministry of Health. Cases and cure cases are reported by province and city, along with the health situation of each new patient. [1]

[1] Ministry of Health. August 2020. Covid 19 situation. [https://ncov.moh.gov.vn/]. Accessed 14 august 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

Vietnam has laws and regulations that safeguard the confidentiality of identifiable health information for individuals, such as that generated through health surveillance activities. In 2009, the government passed the Law on Examination and treatment that respects the rights of the patient, and mandates confidential information on health status and private life in medical records, unless the patient agrees or shares information and experiences to improve the quality of diagnosis, care and treatment. [1] In 2018, the government passed the Law on Information Security, which states that organisations and individuals permitted to access and exploit electronic medical records shall have the responsibility to protect personal information in electronic medical records in accordance with the law. [2]



[1] Government of Vietnam. Decree No. 40/2009/QH12 pf 23 November 2009. "The law on examination and treatment (KHÁM B?NH, CH?A B?NH)".

[http://vanban.chinhphu.vn/portal/page/portal/chinhphu/hethongvanban?class_id=1&_page=1&mode=detail&document_id =92348]. Accessed 12 August 2020.

[2] Government of Vietnam. Decree No. 24/2018/QH14 of 12 June 2018. "The law on Information Security (NH?NG QUY ??NH CHUNG)". [https://thuvienphapluat.vn/van-ban/Cong-nghe-thong-tin/Luat-an-ninh-mang-2018-351416.aspx] Accessed 12 August 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: 1

The regulatory framework in Vietnam that safeguards the confidentiality of identifiable health information for individuals, such as that generated through health surveillance activities, includes mention of protections from cyber attacks. In 2018, the government passed the Law on Information Security (also known as Law on Cybersecurity), which states that information security systems, which include health surveillance systems, must protect personal information in Vietnam, particularly against violations of network security and from malicious software. [1] Websites for the Ministry of Health and Ministry of Information and Communication do not have additional information. [2,3]

[1] Government of Vietnam. Decree No. 24/2018/QH14 of 12 June 2018. "The law on Information Security (NH?NG QUY ??NH CHUNG)". [https://thuvienphapluat.vn/van-ban/Cong-nghe-thong-tin/Luat-an-ninh-mang-2018-351416.aspx] Accessed 12 August 2020.

[2] Ministry of Health. "B? Y t?".

[http://moh.gov.vn/pages/index.aspx?ReturnUrl=%2f_layouts%2fAuthenticate.aspx%3fSource%3d%252F&Source=%2F] Accessed 29 December 2018

[3] Ministry of Information and Communication. "B? TT&TT". [http://mic.gov.vn/Pages/trangchu.aspx] Accessed 12 August 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: 2

The government has 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 for more than one disease. During the 8th Vietnam-Cambodia Development Cooperation Conference in 2015, the two governments agreed to accelerate the exchange of information on communicable diseases during emergencies and to work together to prevent and control the spread of diseases on a large scale. [1] As a member states of the Association of Southeast Asian Nations (ASEAN), Vietnam is



also committed to sharing information during emergencies (e.g. public health emergency) with the AHA Centre, an intergovernmental organisation established by the ten ASEAN Member States that aims to facilitate cooperation and coordination of disaster management. [2] The government also made commitments to share COVID-19 data through Circular 15/CT-TTg of 27 March 2020 and the ASEAN joint statement on cooperation against disease outbreaks, which includes sharing surveillance and case data. [3,4] Vietnam is a member of the Mekong Basin Disease Surveillance (MBDS) Network. In 2015, Thailand jointly prepared and approved the third Memorandum of Understanding (MOU) on MBDS Cooperation with China, Cambodia, Laos, Myanmar, and Thailand. Under this MOU, the signing countries agree to strengthen national and regional capabilities in disease surveillance, and outbreak preparedness and response to priority diseases and to any public health emergencies of international concerns as stated in the International Health Regulation (IHR 2005). [5]

- [1] Nha Dan. 2015. "Vietnam, Laos, Cambodia share experiences in preventing trans-border diseases". [https://en.nhandan.org.vn/politics/item/3746502-french-cruiser-visits-da-nang.html] Accessed May 2021.
- [2] AHA Centre. "What we do". [https://ahacentre.org/what-we-do/] Accessed 14 August 2020
- [3] Government of Vietnam. So 15/CT-TTg. [https://thuvienphapluat.vn/van-ban/the-thao-y-te/chi-thi-15-ct-ttg-2020-quyet-liet-thuc-hien-dot-cao-diem-phong-chong-dich-covid-19-438342.aspx] Accessed 20 August 2020 [4[ASEAN. 2020. Joint Statement by The ASEAN Defence Ministers on Defense Cooperation Against Disease Outbreaks. [https://asean.org/joint-statement-asean-defence-ministers-defense-cooperation-disease-outbreaks/] Accessed 20 August 2020.
- [5] Memorandum of Understanding (MOU) Among the Health Ministries of the Six Mekong Basin Countries on The Mekong Basin Disease Surveillance (MBDS) Cooperation. 2015. [http://www.mbdsnet.org/mbds-memorandum-of-understanding/]. Accessed August 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 evidence of a national system in place to provide support at the sub-national level to conduct contact tracing, but only in response to active public health emergencies. Vietnam has published information on its efforts to conduct contact tracing in response to the COVID-19 pandemic. With help from the Centers of Disease Control and Prevention (CDC), the government runs disease surveillance and has trained staff within the Ministry of Health that can prevent the spread of infectious diseases. [1,2,3,4] Directive 15/CT-TTg of 27 March 2020 committed government resources to provide support to provinces, cities and local People's Committees to provide training and funding for testing, reporting, tracing and isolating COVID-19 cases. The Directive took a whole-of-government approach. Specifically the Ministries of Public Security, Health, and Information and Communication were directed to work with local governments to ensure sufficient testing and tracing. Furthermore, any misreporting or disobeying of the Directive were deemed criminal offences. [5] Vietnam used extensive contact tracing, isolation and quarantining, up to third-tier contacts. Groups of people living near confirmed cases were tested and isolated, thus limiting community transmission. Nearly 450,000 people have been quarantined (either at hospitals or state-run facilities or self-isolation). The government's actions to support and expand contact tracing have been



recognized internationally. [6]

- [1] Centers for Disease Control and Prevention (CDC). 2020. "Global health Vietnam".
- [https://www.cdc.gov/globalhealth/countries/vietnam/default.htm] Accessed 13 September 2020.
- [2] Ministry of Health. 2020. "Activity news". [https://moh.gov.vn/hoat-dong-cua-lanh-dao-bo] Accessed 13 September 2020.
- [5] General Department of Preventative Medicine. 2020. "Infectious diseases." [http://vncdc.gov.vn/vi/cac-hoat-dong] Accessed 13 September 2020.
- [3] General department of preventative medicine. 2020. "Infectious diseases." [http://vncdc.gov.vn/vi/phong-chong-benhtruyen-nhiem] Accessed 13 September 2020.
- [4] Ministry of Health News. 2020. "Infectious diseases". [https://suckhoedoisong.vn/benh-lay-truyen--c47/] Accessed 13 September 2020.
- [5] Government of Vietnam. 2020. So 15/CT-TTg. [https://thuvienphapluat.vn/van-ban/the-thao-y-te/chi-thi-15-ct-ttg-2020-quyet-liet-thuc-hien-dot-cao-diem-phong-chong-dich-covid-19-438342.aspx] Accessed 20 August 2020.
- [6] World Bank. 2020. Vietnam's Success in Containing COVID-19 Offers Roadmap for Other Developing Countries. [https://www.imf.org/en/News/Articles/2020/06/29/na062920-vietnams-success-in-containing-covid19-offers-roadmap-for-other-developing-countries] Accessed 20 August 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 Vietnam has a general plan to provide wrapround services to enable infected people and their contacts to self-isolate or quarantine as recommended, particularly economic support (paycheck, job security) and medical attention. The Ministry of Health and the General Department of Preventative Medicine do not have information about this. [1,2] The national laboratories (National Institute of Hygiene and Epidemiology (NIHE), Nha Trang Pasteur Institute, Central Highlands Institute of Hygiene and Epidemiology) do not publish additional information about this. [3,4] There is no national public health institute. [5] Although the government does not have a general plan, it is able to allocate resources efficiently in response to public health emergencies. For example, Directive 15/CT-TTg of 27 March 2020 committed government resources to provide support to provinces, cities and local People's Committees to provide training and funding for testing, reporting, tracing and isolating COVID-19 cases. The Directive took a whole-of-government approach. Specifically the Ministries of Public Security, Health, and Information and Communication were directed to work with local governments to ensure sufficient testing and isolation. Furthermore, any misreporting or disobeying of the Directive, including failure to isolate were deemed criminal offences. [6] The government has also committed to pay for all medical treatment for COVID-19 patients, but there are no specific commitments to support the contacts of infected people. [7]

- [1] Ministry of Health. 2020. "Activity news". [https://moh.gov.vn/hoat-dong-cua-lanh-dao-bo] Accessed 13 September 2020.
- [2] General Department of Preventative Medicine. 2020. "Infectious diseases." [http://vncdc.gov.vn/vi/cac-hoat-dong]
 Accessed 13 September 2020
- [3] National Institute of Hygiene and Epidemiology. "About us" [https://nihe.org.vn/gioi-thieu#gioi-thieu-chung] Accessed 13 September 2020
- [4] Nha Trang Pasteur Institute. "Nha Trang Pasteur Institute." [http://pasteur-nhatrang.org.vn/] Accessed 13 September 2020
- [5] Ministry of Health. "Site diagram". [https://moh.gov.vn/so-o-trang] Accessed 13 September 2020



[6] Government of Vietnam. 2020. So 15/CT-TTg. [https://thuvienphapluat.vn/van-ban/the-thao-y-te/chi-thi-15-ct-ttg-2020-quyet-liet-thuc-hien-dot-cao-diem-phong-chong-dich-covid-19-438342.aspx] Accessed 20 August 2020.

[7] Ministry of Health. 2020. Ministry of Health Guide to pay for medical treatment in COVID-19.

[https://ncov.moh.gov.vn/web/guest/-/bo-y-te-huong-dan-thanh-toan-chi-phi-kham-chua-benh-bhyt-trong-dich-covid-19] Accessed 20 August 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: 1

Vietnam makes daily de-identified data on contact tracing efforts for COVID-19 available on government websites and through social media. The Ministry of Health has a webpage dedicated to COVID-19 that lists basic details (age, gender, whether the case was imported or community transmitted and location) of all COVID-19 patients in the country. [1] Vietnam's situation is unique since it did not have any community transmission cases for 99 days through 25 July 2020. [2] The government also created an account on Zalo, a social media app that is installed in approximately 80% of smart phones in Vietnam and has more than 100m users, that sends push notifications on community transmission and allow users to search their location to get information on cases that have been idenfied as community transmission and are in quarantine. [3,4]

- [1] Ministry of Health. 2020. News page on COVID-19. [https://ncov.moh.gov.vn/web/guest/trang-chu]. Accessed 20 August 2020.
- [2] Vietnam News. 2020. Vietnam confirms first case of Covid-19 community transmission in 100 days. [https://e.vnexpress.net/news/news/vietnam-confirms-first-case-of-covid-19-community-transmission-in-100-days-4135963.html] Accessed 20 August 2020
- [3] Quoracreative. 2020. What is Zalo. [https://quoracreative.com/article/zalo-app] Accessed 13 September 2020.
- [4] Communist Party online paper. 2020. Covid-19 official information provided on Zalo. [http://en.dangcongsan.vn/news-and-events/covid-19-official-information-provided-on-zalo-548610.html] Accessed 13 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: 1

There is evidence that Vietnam 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 response to an active a public health emergency, but no evidence of general plans for future public health emergencies. In March 2020, the Steering Committee for the Prevention of COVID-19 issued Dispatch No. 1545/CV-BCD on guiding the



isolation and monitoring of passenger health on flights with COVID-19 cases. The Dispatch outlines roles and responsibilities for the Ministry of Transport, Ministry of Foreign Affairs, Ministry of Culture, Sport and Tourism, Ministry of Public Security and local governments (People's Committees) to keep track passengers and inform them of confirmed cases on flights. The Ministry of Transport is required to notify the list of passengers and crew members on flights with confirmed cases of COVID-19 to the standing body of the National Steering Committee (Ministry of Health) to promptly inform and implement measures to review and verify information of passengers and to request airlines to inform ticket agents and passengers on flights to proactively contact health authorities, local authorities and take measures to prevent the spread of the disease. [1] The country suspended entry of all foreigners on March 22, 2020 except for diplomats, officials, foreign investors, experts, and skilled workers who must be in a government quarantine for 14 days before they can enter the country. [2] The Ministry of Health, General Department of Preventative Medicine and Border Defence Agency do not have additional information about plans for future outbreaks. [3,4,5] The national laboratories (National Institute of Hygiene and Epidemiology (NIHE), Nha Trang Pasteur Institute, Central Highlands Institute of Hygiene and Epidemiology) do not publish additional information about this. [6,7] There is no national public health institute. [8]

- [1] Ministry of Health. 2020. "Need to know: Guide to quarantine, track passengers on flights with people with COVID-19". [https://ncov.moh.gov.vn/web/guest/-/can-biet-huong-dan-cach-ly-theo-doi-hanh-khach-tren-cac-chuyen-bay-co-nguoi-mac-covid-19] Accessed May 2021.
- [2] Vietnam Briefing. 2020. COVID-19 in Vietnam: Travel Updates and Restrictions. [https://www.vietnam-briefing.com/news/covid-19-vietnam-travel-updates-restrictions.html/] Accessed 20 August 2020.
- [3] Ministry of Health. 2020. "Activity news". [https://moh.gov.vn/hoat-dong-cua-lanh-dao-bo] Accessed 13 September 2020.
- [4] General Department of Preventative Medicine. 2020. "Infectious diseases." [http://vncdc.gov.vn/vi/cac-hoat-dong] Accessed 13 September 2020.
- [5] Border Defence Agency. 2020. HOmepage. [http://bienphongvietnam.vn/] Accessed 13 September 2020.
- [6] National Institute of Hygiene and Epidemiology. "About us" [https://nihe.org.vn/gioi-thieu#gioi-thieu-chung] Accessed 13 September 2020
- [7] Nha Trang Pasteur Institute. "Nha Trang Pasteur Institute." [http://pasteur-nhatrang.org.vn/] Accessed 13 September 2020
- [8] Ministry of Health. "Site diagram". [https://moh.gov.vn/so-o-trang] Accessed 13 September 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

In Vietnam there is an applied epidemiology training program (such as FETP) available in country and the government provides resources to send citizens abroad to study. The Vietnam Field Epidemiology Training Programme is an official



Member Program the Training Programs in Epidemiology and Public Health Interventions Network (TEPHINET) since 2007 and aims to train public health workers in disease surveillance and response. [1] During the 2011 - 2015 FETP master work plan, three participants received government funding and were able to study in the Philippines and Africa. [2] Since 2010, there have been 23 graduates. [1]

[1] Training programs in Epidemiology and Public health interventions network (TEPHINET). "Vietnam Field Epidemiology Training Program". [https://www.tephinet.org/training-programs/vietnam-field-epidemiology-training-program]. Accessed 12 August 2020.

[2] Vietnam Field Epidemiology Training Program (V FETP). 2 November 2016. Results of the FETP Long Term Program 2011-2015. [http://fetp.vncdc.gov.vn/vi/dao-tao/2/ket-qua-hoat-dong-chuong-trinh-fetp-dai-han-giai-doan-2011-2015] Accessed 12 August 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

There is an available field epidemiology training program explicitly inclusive of animal health professionals in Vietnam. There is an Applied Veterinary Epidemiology Training (AVET) Master Plan, which is carried out by the Veterinary Office, Ministry of Agriculture and Rural Development (DAH - MARD) and funded by the United States Agency for International Development (USAID). The program aims to equip state veterinary surgeons with epidemiological skills applied in surveillance, control and response to disease. [1] A regional FETPV program is also available, according to Training programs in Epidemiology and Public health interventions network (TEPHINET). [2] There is no public information about student participation from official national sources such as the Ministry of Agriculture or the Ministry of Health. [3,4]

[1] One Health Partnership. 30 June 2016. "Summary Plan".

[http://onehealth.org.vn/upload/upload/Summary%20Plan 30June2016.pdf] Accessed 12 August 2020.

[2] Training programs in Epidemiology and Public health interventions network (TEPHINET). "Regional Field Epidemiology Training Program for Veterinarians (Southeast Asia)". [https://www.tephinet.org/training-programs/regional-field-epidemiology-training-program-for-veterinarians-southeast-asia]. Accessed 12 August 2020.

[3] Ministry of Health. "B? Y t?".

[http://moh.gov.vn/pages/index.aspx?ReturnUrl=%2f_layouts%2fAuthenticate.aspx%3fSource%3d%252F&Source=%2F] Accessed 12 August 2020.

[4] Ministry of Agriculture and Rural Development. "Party work". [https://www.mard.gov.vn/Pages/cong-tac-dang.aspx] Accessed 12 August 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: 1



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: 1

There is evidence that Vietnam has a public health emergency plan in place to respond to the COVID-19 epidemic, but there is no evidence of an overarching plan that addresses planning for multiple communicable diseases with epidemic or pandemic potential. On 27 March 2020, the Prime Minister issued Directive 15/CT-TTg, the plan for fight the COVID-19 pandemic. The plan outlines a whole of government approach, restricts public gatherings to 20 people, suspends operations of non-essential goods and services and sets social distancing guidelines. [1] The Ministry of Health, General Department of Preventative Medicine and Border Defence Agency do not have additional information about general planning for multiple communicable diseases with epidemic or pandemic potential. [2,3,4] The national laboratories (National Institute of Hygiene and Epidemiology (NIHE), Nha Trang Pasteur Institute, Central Highlands Institute of Hygiene and Epidemiology) do not publish additional information about this. [5,6] There is no national public health institute. [7] The government has also developed individual plans for measles and Hand, Foot and Mouth Disease that address case reporting and managing supplies of medical countermeasures to treat these diseases. [8,9]

- [1] Government of Vietnam. 2020. Directive 15/CT-TTg. [https://thuvienphapluat.vn/van-ban/the-thao-y-te/chi-thi-15-ct-ttg-2020-quyet-liet-thuc-hien-dot-cao-diem-phong-chong-dich-covid-19-438342.aspx] Accessed 20 August 2020
- [2] Ministry of Health. 2020. "Activity news". [https://moh.gov.vn/hoat-dong-cua-lanh-dao-bo] Accessed 13 September 2020.
- [3] General Department of Preventative Medicine. 2020. "Infectious diseases." [http://vncdc.gov.vn/vi/cac-hoat-dong] Accessed 13 September 2020.
- [4] Border Defence Agency. 2020. HOmepage. [http://bienphongvietnam.vn/] Accessed 13 September 2020.
- [5] National Institute of Hygiene and Epidemiology. "About us" [https://nihe.org.vn/gioi-thieu#gioi-thieu-chung] Accessed 13 September 2020
- [6] Nha Trang Pasteur Institute. "Nha Trang Pasteur Institute." [http://pasteur-nhatrang.org.vn/] Accessed 13 September 2020
- [7] Ministry of Health. "Site diagram". [https://moh.gov.vn/so-o-trang] Accessed 13 September 2020



[8] Ministry of Health. Circular No. 16632/QLD-KD of 28 August 2018. "To supply drugs for dengue fever and measles prevention". [https://thuvienphapluat.vn/cong-van/The-thao-Y-te/Cong-van-16632-QLD-KD-2018-cung-ung-thuoc-phong-chong-benh-sot-xuat-huyet-va-benh-soi-392631.aspx] Accessed 20 August 2020.

[9] Ministry of Health. Circular No. 19043/QLD-KD of 9 October 2018. "To supply drugs for HFM disease prevention" [https://thuvienphapluat.vn/cong-van/The-thao-Y-te/Cong-van-19043-QLD-KD-2018-dam-bao-cung-ung-thuoc-phong-dieutri-benh-tay-chan-mieng-396605.aspx] Accessed 20 August 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: 0

Vietnam does not have a national public health emergency response plan in place that addresses planning for multiple communicable diseases with pandemic potential. In March 2020, the Prime Minister issued a national plan for the fight against COVID-19, but there is no evidence that the country has developed an overarching plan. [1] The government has also worked with the United States Agency for International Development (USAID) to implement the Emerging Pandemic Threats 2 (EPT-2) program, which aims to prevent, detect and respond to infectious disease threats with guidance from Global Health Security Agenda (GHSA) and the International Health Regulations. The publicly available evidence about the programme does not describe response planning for multiple communicable diseases with pandemic potential. [2] There is no additional evidence in the Joint External Evaluation for Vietnam, conducted in October/November 2016. [3] Websites for the Ministries of Health, Agriculture and Rural Development, and Disaster Management Authority do not have additional evidence. [4,5,6]

- [1] Government of Vietnam. 2020. Directive 15/CT-TTg. [https://thuvienphapluat.vn/van-ban/the-thao-y-te/chi-thi-15-ct-ttg-2020-quyet-liet-thuc-hien-dot-cao-diem-phong-chong-dich-covid-19-438342.aspx] Accessed 20 August 2020
- [2] Unites States Agency for International Development (USAID). Pandemic influenza and other emerging threats." [https://www.usaid.gov/vietnam/pandemic-influenza-and-other-emerging-threats] Accessed 20 August 2020.
- [3] World Health Organisation (WHO). 28 October 4 November 2016. "Joint External Evaluation of IHR Core Capacities of Vietnam". [http://www.who.int/ihr/publications/WHO-WHE-CPI-2017.21/en/] Accessed 20 Augus 2020.
- [4] Ministry of Health. "Homepage". [http://moh.gov.vn] Accessed 20 August 2020
- [5] Ministry of Agriculture and Rural Development. "Party work". [https://www.mard.gov.vn/Pages/cong-tac-dang.aspx] Accessed 20 August 2020.
- [6] Disaster Management Authority. "Tài li?u ???c xem nhi?u".[http://dmc.gov.vn/?lang=vi-VN] Accessed 29 December 2018

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: 0

Vietnam does not have a national public health emergency response plan in place that addresses planning for multiple communicable diseases with pandemic potential. In March 2020, the Prime Minister issued a national plan for the fight against COVID-19, but there is no evidence that the country has developed an overarching plan. The plan does not include special considerations of children or other vulnerable populations. [1] The government has also worked with the United States Agency for International Development (USAID) to implement the Emerging Pandemic Threats 2 (EPT-2) program, which aims to prevent, detect and respond to infectious disease threats with guidance from Global Health Security Agenda (GHSA) and the International Health Regulations. The publicly available evidence about the programme does not describe



response planning for multiple communicable diseases with pandemic potential. [2] There is no additional evidence in the Joint External Evaluation for Vietnam, conducted in October/November 2016. [3] Websites for the Ministries of Health, Agriculture and Rural Development, and Disaster Management Authority do not have additional evidence. [4,5,6]

- [1] Government of Vietnam. 2020. Directive 15/CT-TTg. [https://thuvienphapluat.vn/van-ban/the-thao-y-te/chi-thi-15-ct-ttg-2020-quyet-liet-thuc-hien-dot-cao-diem-phong-chong-dich-covid-19-438342.aspx] Accessed 20 August 2020
- [2] Unites States Agency for International Development (USAID). Pandemic influenza and other emerging threats." [https://www.usaid.gov/vietnam/pandemic-influenza-and-other-emerging-threats] Accessed 20 August 2020.
- [3] World Health Organisation (WHO). 28 October 4 November 2016. "Joint External Evaluation of IHR Core Capacities of Vietnam". [http://www.who.int/ihr/publications/WHO-WHE-CPI-2017.21/en/] Accessed 20 Augus 2020.
- [4] Ministry of Health. "Homepage". [http://moh.gov.vn] Accessed 20 August 2020
- [5] Ministry of Agriculture and Rural Development. "Party work". [https://www.mard.gov.vn/Pages/cong-tac-dang.aspx] Accessed 20 August 2020.
- [6] Disaster Management Authority. "Tài li?u ???c xem nhi?u".[http://dmc.gov.vn/?lang=vi-VN] Accessed 29 December 2018

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: 1

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

Vietnam does not have a specific mechanism for engaging with the private sector to assist with outbreak emergency preparedness and response. There is no public evidence that mechanisms for engaging with the private sector are included in the National One Health Strategic Plan for Zoonotic Diseases 2016 – 2020 or the Emerging Pandemic Threats 2 (EPT-2) program. [1,2] The Joint External Evaluation on Vietnam that was completed in November 2016 does not identify formal agreements or plans to engage the private sector in disease outbreak emergency preparedness or response operations. [3] Websites for the Ministries of Health and Agriculture and Rural Development and the Disaster Management Authority do not have evidence of formal agreements to cooperate with the private sector in response to disease outbreaks. [4,5,6] The Prime Minister issued Directive 15/CT-TTg in March 2020, which gave the government the power to direct the private sector to provide "equipment, medicines, medical supplies and prevention and anti-epidemic options", but there is no evidence of a publicly available plan.. [7]



[1] Ministry of Health and Ministry of Agriculture and Rural Development. December 2016. "The Vietnam One Health Strategic Plan for Zoonotic Diseases 2016 – 2020".

[[https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=2ahUKEwiDgq7WsqvrAhXBd N8KHapIBAgQFjABegQIAhAB&url=https%3A%2F%2Fapps.who.int%2Firis%2Frest%2Fbitstreams%2F1082848%2Fretrieve&usg =AOvVaw1WwfVMM0Ofh9jYPBUcF58d] Accessed 19 August 2020.

- [2] Unites States Agency for International Development (USAID). Pandemic influenza and other emerging threats." [https://www.usaid.gov/global-health/health-areas/emerging-pandemic-threats] Accessed 19 August 2020.
- [3] World Health Organisation (WHO). 28 October 4 November 2016. "Joint External Evaluation of IHR Core Capacities of Vietnam". [http://www.who.int/ihr/publications/WHO-WHE-CPI-2017.21/en/] Accessed 19 August 2020.
- [4] Ministry of Health. 2018. "News activity (Tin ho?t??ng)". [http://vncdc.gov.vn/] Accessed 19 August 2020.
- [5] Ministry of Agriculture and Rural Development. 2018. "Party work (Trang ch? Công tác??ng)". https://www.mard.gov.vn/Pages/cong-tac-dang.aspx] Accessed 19 August 2020.
- [6] Disaster Management Authority. "Tài li?u ???c xem nhi?u".[http://dmc.gov.vn/?lang=vi-VN] Accessed 19 August 2020.
- [7] Government of Vietnam. 2020. Directive 15/CT-TTg. [https://thuvienphapluat.vn/van-ban/the-thao-y-te/chi-thi-15-ct-ttg-2020-quyet-liet-thuc-hien-dot-cao-diem-phong-chong-dich-covid-19-438342.aspx] Accessed 20 August 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: 1

There is evidence that Vietnam has a policy in place to implement non-pharmaceutical interventions (NPIs) during the COVID-19 pandemic, but no evidence of guidelines for more than one disease. The Ministry of Health and the General Department of Preventative Medicine do not have information about this. [1,2] The national laboratories (National Institute of Hygiene and Epidemiology (NIHE), Nha Trang Pasteur Institute, Central Highlands Institute of Hygiene and Epidemiology) do not publish additional information about this. [3,4] There is no national public health institute. [5] Although there is no overarching plan, the government implented NPIs in response to the COVID-19 emergency. On 27 March 2020, the Prime Minister issued Directive 15/CT-TTg on fighting the COVID-19 pandemic. The plan included NPIs such as limiting indoor gatherings to 20 people, enacting social distancing of 2 meters, and suspending operations of all non-essential businesses. [6]

- [1] Ministry of Health. 2020. "Activity news". [https://moh.gov.vn/hoat-dong-cua-lanh-dao-bo] Accessed 13 September 2020.
- [2] General Department of Preventative Medicine. 2020. "Infectious diseases." [http://vncdc.gov.vn/vi/cac-hoat-dong]
 Accessed 13 September 2020
- [3] National Institute of Hygiene and Epidemiology. "About us" [https://nihe.org.vn/gioi-thieu#gioi-thieu-chung] Accessed 13 September 2020
- [4] Nha Trang Pasteur Institute. "Nha Trang Pasteur Institute." [http://pasteur-nhatrang.org.vn/] Accessed 13 September 2020
- [5] Ministry of Health. "Site diagram". [https://moh.gov.vn/so-o-trang] Accessed 13 September 2020
- [6] Government of Vietnam. 2020. Directive 15/CT-TTg. [https://thuvienphapluat.vn/van-ban/the-thao-y-te/chi-thi-15-ct-ttg-2020-quyet-liet-thuc-hien-dot-cao-diem-phong-chong-dich-covid-19-438342.aspx] Accessed 20 August 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

There is evidence that Vietnam has implemented its emergency plan to fight the COVD-19 epidemic. On March 27, 2020, the Prime Minister issued Directive No. 15 / CT-TTg on urgent measures to prevent and control the COVID-19 epidemic. The plan outlines roles and responsibilities for the various stakeholders in government, describes non-pharmaceutical interventions (NPIs) and directs all individuals and organizations to comply with the directive. [1] There is no additional evidence from the World Health Organization (WHO), Ministry of Health, or Disaster Management Authority regarding national level biological threat focused exercises. [2,3,4]

- [1] Government of Vietnam. 2020. Directive 15/CT-TTg. [https://thuvienphapluat.vn/van-ban/the-thao-y-te/chi-thi-15-ct-ttg-2020-quyet-liet-thuc-hien-dot-cao-diem-phong-chong-dich-covid-19-438342.aspx] Accessed 20 August 2020
- [2] Ministry of Health. "Homepage". [http://moh.gov.vn] Accessed 20 August 2020
- [3] Disaster Management Authority. "Homepage".[http://dmc.gov.vn/?lang=vi-VN] Accessed 20 August 2020
- [4] WHO. 2020. Simulation Exercise. [https://extranet.who.int/sph/simulation-exercise] Accessed 20 August 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 insufficient evidence to conclude that Vietnam has a plan to address identified gaps and best practices for emergency response measures. From 25 April to 28 April of 2018, Vietnam participated in a WHO-organised exercise with the objective to validate advance national pandemic preparedness. Vietnam also participated in drill exercises on coordinated response to Avian Influenza A/H7N9 outbreak in Hanoi, Quang Ninh, Thai Nguyen and Lang Son provinces in May 2017. [1] However, there are no publicly available reports about these exercises from the WHO, Ministry of Health (MOH) or the Emergency Operation Centre (EOC). [1,3,4] Vietnam has participated in after action reviews, but these were more than a year ago. [2] Vietnam conducted an after action review on Dengue fever with the WHO from 1 September to 31 October 2017. In December 2016, Vietnam conducted an after action review on the Zika Virus disease. [2] Websites for the WHO, MOH and EOC do not have additional information. [3,4,5]



- [1] World Health Organisation (WHO). "Simulation exercise". [https://extranet.who.int/sph/simulation-exercise] Accessed 20 August 2020. [2] World Health Organisation (WHO). "After action review". [https://extranet.who.int/sph/after-action-review] Accessed 20 August 2020.
- [3] Ministry of Health. Homepage. [http://moh.gov.vn/] Accessed 20 August 2020
- [4] Emergency operation center. Homepage. [http://vncdc.gov.vn/vi/van-phong-eoc/153/gioi-thieu-van-phong-eoc] Accessed 20 August 2020
- [5] WHO. Media centre. [http://www.wpro.who.int/vietnam/mediacentre/en/] Accessed 20 August 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 publicly available evidence that Vietnam in the past year has undergone a national-level biological threat-focused exercise that has included private sector representatives. The World Health Organisation (WHO) website does not show that Vietnam has participated in a simulation exercise or after action review in the last year. [1,2] Websites for the Ministry of Health, Emergency Operation Center and Disaster Management Authority do not have additional information about this. [3,4,5]

- [1] World Health Organisation (WHO). "Simulation exercise". [https://extranet.who.int/sph/simulation-exercise] Accessed 20 August 2020. [2] World Health Organisation (WHO). "After action review". [https://extranet.who.int/sph/after-action-review] Accessed 20 August 2020.
- [3] Ministry of Health. Homepage. [http://moh.gov.vn/] Accessed 20 August 2020
- [4] Emergency operation center. Homepage. [http://vncdc.gov.vn/vi/van-phong-eoc/153/gioi-thieu-van-phong-eoc] Accessed 12 January 2019
- [5] Disaster Management Authority. "Homepage".[http://dmc.gov.vn/?lang=vi-VN] Accessed 20 August 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

Vietnam has an Emergency Operations Centre. In 2015, the Ministry of Health in collaboration with the US Embassy in Vietnam inaugurated the first Office of Emergency Response to Disease Control (EOC) within the General Department of Preventive Medicine, under the Ministry of Health. [1] Since then, the health-specific national EOC has been activated for emergency preparedness in response to disease outbreaks that could affect Vietnam, for example: Ebola in West Africa, MERS-CoV in South Korea and Zika in South America and Vietnam. [2] The Joint External Evaluation (JEE) for Vietnam, conducted in October/November 2016, confirmed that a Public Health EOC exists. However, the JEE concluded that SOPs and the handbook for the EOC were still in draft form and needed to be finalized, approved and implemented. [3] There is no



additional evidence from the Ministry of Health or the Disaster Management Authority. [4,5]

- [1] Ministry of Health. Decision No. 1424/QD-BYT of 2 May 2013. "Regarding the establishment of the Emergency Operation Center". [http://vncdc.gov.vn/en/emergency-operation-center/288/regarding-the-establishment-of-the-emergency-operation-center] Accessed 19 August 2020.
- [2] Centers for Disease Control and Prevention. Updated 17 May 2016. "Vietnam: Connecting for Stronger Emergency Response". [https://www.cdc.gov/globalhealth/security/stories/vietnam_emergency_response.html] Accessed 19 August 2020.
- [3] World Health Organisation (WHO). 28 October 4 November 2016. "Joint External Evaluation of IHR Core Capacities of Vietnam". [http://www.who.int/ihr/publications/WHO-WHE-CPI-2017.21/en/] Accessed 19 August 2020.
- [4] Ministry of Health. "B? Y t?".
- [http://moh.gov.vn/pages/index.aspx?ReturnUrl=%2f_layouts%2fAuthenticate.aspx%3fSource%3d%252F&Source=%2F] Accessed 19 August 2020.
- [5] Disaster Management Authority. "Tài li?u ???c xem nhi?u".[http://dmc.gov.vn/?lang=vi-VN] Accessed 19 August 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 no public evidence showing that the Emergency Operations Centre (EOC) is required to conduct a drill every year or that annual drills are conducted. Decision No 1424/QD-BYT of 2013 by the Ministry of Health established Vietnam's first EOC within the General Department of Preventive Medicine (GDPM), Ministry of Health. The Decision does not have a requirement for annual drills. [1] The websites for the GDPM, the Ministry of Health, the Disaster Management Authority and Ministry of Agriculture do not have additional information about requiring oro conducting annual drills. [2,3,4,5] The Joint External Evaluation for Vietnam, conducted in October/November 2016, has no additional information. [6]

- [1] Ministry of Health. Decision No. 1424/QD-BYT of 2 May 2013. "Regarding the establishment of the Emergency Operation Center". [http://vncdc.gov.vn/en/emergency-operation-center/288/regarding-the-establishment-of-the-emergency-operation-center] Accessed 19 August 2020.
- [2] General Department of Preventive Medicine. "Functions and responsibilities". [http://vncdc.gov.vn/en/functions-and-responsibilities] Accessed 19 August 2020.
- [3] Ministry of Health. 2018. "News activity (Tin ho?t ??ng)". [http://vncdc.gov.vn/] Accessed 19 August 2020.
- [4] Disaster Management Authority. "Tài li?u ???c xem nhi?u".[http://dmc.gov.vn/?lang=vi-VN] Accessed 19 August 2020.
- [5] Ministry of Agriculture and Rural Development. 2018. "Party work (Trang ch? Công tác??ng)". https://www.mard.gov.vn/Pages/cong-tac-dang.aspx] Accessed 19 August 2020.
- [6] World Health Organisation (WHO). 28 October 4 November 2016. "Joint External Evaluation of IHR Core Capacities of Vietnam". [http://www.who.int/ihr/publications/WHO-WHE-CPI-2017.21/en/] Accessed 13 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 no public evidence to show that the EOC can conduct, or 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 Vietnam, conducted in October/November 2016, concluded that "no exercise to date has demonstrated the ability to activate the PHEOC within 120 minutes of identification of a public health emergency (Level 4 of this indicator)." [1] The websites for the General Department of Preventive Medicine (GDPM), the Ministry of Health, Ministry of Agriculture and the Disaster Management Authority do not have additional information about activating emergency response actions within 120 minutes of the identification of the scenario. [2,3,4,5]

- [1] World Health Organisation (WHO). 28 October 4 November 2016. "Joint External Evaluation of IHR Core Capacities of Vietnam". [http://www.who.int/ihr/publications/WHO-WHE-CPI-2017.21/en/] Accessed 19 August 2020.
- [2] General Department of Preventive Medicine. "Functions and responsibilities". [http://vncdc.gov.vn/en/functions-and-responsibilities] Accessed 19 August 2020.
- [3] Ministry of Health. 2018. "News activity (Tin ho?t ??ng)". [http://vncdc.gov.vn/] Accessed 19 August 2020.
- [4] Ministry of Agriculture and Rural Development. 2018. "Party work (Trang ch? Công tác??ng)". https://www.mard.gov.vn/Pages/cong-tac-dang.aspx] Accessed 19 August 2020.
- [5] Disaster Management Authority. "Tài li?u ???c xem nhi?u".[http://dmc.gov.vn/?lang=vi-VN] Accessed 19 August 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: 0

There is no evidence that public health and national security authorities have either established formal cooperation to respond to a deliberate biological attack (i.e., bioterrorism) or carried out a practice exercise to respond to such an incident, nor are there standard operating procedures for detecting and responding to deliberate biological incidents. The Joint External Evaluation (JEE), which was completed in October/November 2016, recommends that the Ministry of Health should develop guidelines and standard operating procedures (SOPs) for detection and response to bioterrorism. The JEE does not mention that any bioterrorism response exercises have been conducted. [1] The websites for the General Department of Preventive Medicine (GDPM) the Ministry of Health and the Disaster Management Authority do not have additional information about response planning for bioterrorism. [2,3,4]

- [1] World Health Organisation (WHO). 28 October 4 November 2016. "Joint External Evaluation of IHR Core Capacities of Vietnam". [http://www.who.int/ihr/publications/WHO-WHE-CPI-2017.21/en/] Accessed 19 August 2020.
- [2] General Department of Preventive Medicine. "Functions and responsibilities". [http://vncdc.gov.vn/en/functions-and-



responsibilities] Accessed 19 August 2020.

- [3] Ministry of Health. 2018. "News activity (Tin ho?t ??ng)". [http://vncdc.gov.vn/] Accessed 19 August 2020.
- [4] Ministry of Agriculture and Rural Development. 2018. "Party work (Trang ch? Công tác??ng)".

https://www.mard.gov.vn/Pages/cong-tac-dang.aspx] Accessed 19 August 2020.

[5] Disaster Management Authority. "Tài li?u ???c xem nhi?u".[http://dmc.gov.vn/?lang=vi-VN] Accessed 19 August 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 insufficient publicly available evidence to conclude that the government has implemented a risk communication system that is designed to reach populations and sectors with different communication needs. The Joint External Evaluation (JEE) that was conducted in 2016 notes that "Messages [for risk communication during emergencies] are disseminated in a timely manner and in five local languages (including to ethnic communities in remote areas)." [1] However, the strategy document is not publicly available and there is no additional available evidence from the Ministry of Health or the Disaster Management Authority. [2,3]

- [1] World Health Organisation (WHO). 28 October 4 November 2016. "Joint External Evaluation of IHR Core Capacities of Vietnam". [http://www.who.int/ihr/publications/WHO-WHE-CPI-2017.21/en/] Accessed 19 August 2020.
- [2] Ministry of Health. 2018. "News activity (Tin ho?t ??ng)". [http://vncdc.gov.vn/] Accessed 19 August 2020.
- [3] Ministry of Agriculture and Rural Development. 2018. "Party work (Trang ch? Công tác??ng)". https://www.mard.gov.vn/Pages/cong-tac-dang.aspx] Accessed 19 August 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

Vietnam has plans that detail a risk communication strategy that is specifically intended for use during a public health emergency. The Joint External Evaluation (JEE) that was completed in October/November 2016 noted that a SOP for risk communication during emergencies was developed in 2015 and has been used during public health emergencies. The JEE also noted that the SOP needed to be strengthened to fully meet IHR (2005) core capacities for risk communication. [1] Although there is documentation that the plan exists, it is not publicly available. The websites for the General Department of Preventive Medicine (GDPM), Ministry of Health and the Disaster Management Authority do not have additional information



about risk communication that is specifically intended for use during public health emergencies. [2,3,4,5]

- [1] World Health Organisation (WHO). 28 October 4 November 2016. "Joint External Evaluation of IHR Core Capacities of Vietnam". [http://www.who.int/ihr/publications/WHO-WHE-CPI-2017.21/en/] Accessed 19 August 2020.
- [2] General Department of Preventive Medicine. "Functions and responsibilities". [http://vncdc.gov.vn/en/functions-and-responsibilities] Accessed 19 August 2020.
- [3] Ministry of Health. 2018. "News activity (Tin ho?t??ng)". [http://vncdc.gov.vn/] Accessed 19 August 2020.
- [4] Ministry of Agriculture and Rural Development. 2018. "Party work (Trang ch? Công tác ??ng)".
- https://www.mard.gov.vn/Pages/cong-tac-dang.aspx] Accessed 19 August 2020.
- [5] Disaster Management Authority. "Tài li?u ???c xem nhi?u".[http://dmc.gov.vn/?lang=vi-VN] Accessed 19 August 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

Vietnam has plans that detail a risk communication strategy that is specifically intended for use during a public health emergency, but these are not publicly available and hence there is no evidence that there is a designated spokesperson within government. The Joint External Evaluation (JEE) that was completed in October/November 2016 noted that a SOP for risk communication during emergencies was developed in 2015 and has been used during public health emergencies. The JEE also noted that the SOP needed to be strengthened to fully meet IHR (2005) core capacities for risk communication. [1] The websites for the General Department of Preventive Medicine (GDPM), Ministry of Health and the Disaster Management Authority do not have additional information about risk communication that is specifically intended for use during public health emergencies. [2,3,4] In response to the COVID-19 pandemic, the government formed the National Steering Committee, which has the responsibility to be the communication entity regarding the pandemic. [5]

- [1] World Health Organisation (WHO). 28 October 4 November 2016. "Joint External Evaluation of IHR Core Capacities of Vietnam". [http://www.who.int/ihr/publications/WHO-WHE-CPI-2017.21/en/] Accessed 19 August 2020.
- [2] General Department of Preventive Medicine. "Functions and responsibilities". [http://vncdc.gov.vn/en/functions-and-responsibilities] Accessed 19 August 2020.
- [3] Ministry of Health. 2018. "News activity (Tin ho?t ??ng)". [http://vncdc.gov.vn/] Accessed 19 August 2020.
- [4] Ministry of Agriculture and Rural Development. 2018. "Party work (Trang ch? Công tác??ng)". https://www.mard.gov.vn/Pages/cong-tac-dang.aspx] Accessed 19 August 2020.
- [5] Disaster Management Authority. "Tài li?u ???c xem nhi?u".[http://dmc.gov.vn/?lang=vi-VN] Accessed 19 August 2020.
- [6] Ministry of Justice. March 2020. Decision on the establishment of the Steering committee for COVID-19 epidemic preventrion and control. [https://vanbanluat.com/co-cau-to-chuc/quyet-dinh-470-qd-btp-bo-tu-phap-2c414.html#noidung] Accessed 20 August 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: 1

The government utilises different media platforms to inform people about public health emergencies, but there is insufficient evidence that there is regular use of online media platforms. The Ministery of Information and Communications issued a Directive on the implementation of the prevention and control of COVID-19. This directive emphasizes that telecommunications, Internet, TV service providers, digital technology platform providers (ex. Zalo, Lotus, Coccoc, Gapo, Be, Mocha, Fastgo, Facebook, Google, Grab, etc) have a large number of users in Vietnam and need to be proactive and creative in spreading official information from authorities to their users through technology platforms. The directive encourages services to provide simple and innovative utilities on their platforms so that users can easily access official information on disease prevention and control. [1] In practice, Ministry of Health uses Zalo, a social networking platform with over 100 million users, as one of its official communication channels, updating the COVID-19 epidemic prevention and control situation. On average, nearly 50 million people access and look up information from Zalo every day from the Ministry of Health. [2]

[1] Ministry of Information and Comunication. Febuary 2020. Gapo, Mocha, Zalo... set up an updated media channel about Corona virus. [https://www.mic.gov.vn/Pages/TinTuc/140620/Huong-ung-chi-thi-cua-Bo-TT-TT--Gapo--Mocha--Zalo...-lap-kenh-truyen-thong-cap-nhat-ve-virus-Corona.html]. Accessed 19 August 2020.

[2] Kynguyenso News. April 2020. The Ministry of Health uses Zalo to fight COVID-19 epidemic. [https://kynguyenso.plo.vn/ky-nguyen-so/nhip-cong-nghe/bo-y-te-su-dung-zalo-de-chong-dich-covid19-901584.html]. Accessed 19 August 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: 1

There is no evidence that senior leaders have shared misinformation on infectious disease in the last two years. In March 2020, the Prime Minister issued Directive 15/CT-TTg, the overarching plan for fighting the COVID-19 pandemic. The Directive mandated that the Ministries of Information and Communication, and Health be responsible to ensure the dissemination of updated and truthful information. [1] International experts have commended Vietnam for transparency and consistency in its messaging. [2]

[1] Government of Vietnam. 2020. Directive 15/CT-TTg. [https://thuvienphapluat.vn/van-ban/the-thao-y-te/chi-thi-15-ct-ttg-2020-quyet-liet-thuc-hien-dot-cao-diem-phong-chong-dich-covid-19-438342.aspx] Accessed 20 August 2020 [2] AJPH. August 2020. The COVID pademic: a view from vietnam.



[https://ajph.aphapublications.org/doi/full/10.2105/AJPH.2020.305751]. Accessed 19 August 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: 68.7

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: 141.23

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: 4.0

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: 9.0



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

There is evidence that Vietnam has 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 in the past year. The World Trade Organisation's "COVID-19: Measures affecting trade in goods" list confirms that Vietnam issued "Temporary export licensing requirements on face masks (HS 6307.90.40; 6307.90.90), due to the COVID-19 pandemic" effective 11 March 2020 and terminated on 29 April 2020, as well as, "Temporary export ban on certain drugs (37 items in HS 3004) used in the COVID-19 treatment" effective15 April 2020. Terminated on 5 May 2020. [1]

[1] World Trade Organisation. June 4, 2021. "COVID-19: Measures affecting trade in goods". [https://www.wto.org/english/tratop_e/covid19_e/trade_related_goods_measure_e.htm] Accessed June 24, 2021.

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: 0

The General Department of Customs confirmed, on March 24, the request to suspend the customs clearance for export shipments on rice. This was explained by the General Department of Customs as "implementing the decision of Prime Minister Nguyen Xuan Phuc at the Standing Meeting of the Government on ensuring food security in the context of the impact of the Covid-19 epidemic. [1] However, the ban was subsequently reversed and in 400,000 tons of rice were exported in the month of April. [2,3]

- [1] Vietnam.net. March 2020. Pause the export of rice from 24/03. [https://vietnamnet.vn/vn/kinh-doanh/thi-truong/tam-dung-xuat-khau-gao-tu-0h-ngay-24-3-627807.html]. Accessed 19 august 2020.
- [2] TuoiTre News. March 2020. Allow to export rice in april. [https://tuoitre.vn/chi-cho-phep-xuat-khau-400-000-tan-gao-trong-thang-4-20200330091347238.htm]. Accessed 19 August 2020.
- [3] VGP NEws. April 2020. Allow to export rice again. [http://baochinhphu.vn/Tin-noi-bat/Thu-tuong-dong-y-xuat-khau-gao-tro-lai-nhung-phai-dam-bao-an-ninh-luong-thuc/392704.vgp]. Accessed 19 August 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

There is evidence that Vietnam has implemented a ban, without international/bilateral support, on travelers arriving from a specific country or countries due to an infectious disease outbreak. In response to the COVID-19 epidemic, the Government of Vietnam introduced policies that restrict visas and immigration. Since March 22, the Government of Vietnam has temporarily stopped permitting foreigners to enter Vietnam, including those with visa exemption certificates.[1]

[1] Vietnam Embassy. March 2020. Travel restriction [https://vn.usembassy.gov/vi/u-s-citizen-services-vi/local-resources-for-u-s-citizens-vi/vietnamese-visas-and-entry-exit-vi/]. Accessed 19 August 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: 82.81

2016

WHO; national sources

4.1.1b

Nurses and midwives per 100,000 people

Input number

Current Year Score: 144.63

2016



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: 1

Vietnam has a public workforce strategy in place that addresses labour shortages in the public health sector and has been updated in the last five years. In 2016, the government issued Decree No. 2348/QD-TTg, on developing the public health sector. The decree identifies shortages of healthcare providers at the grassroots level as a primary weakness in the public health system in Vietnam. The decree aims to have adequate staff at 90% of commune health clinics by 2020 and 100% by 2025. The strategy aims to reduce the shortage of workers by having better coordination between the public and private sectors and by increasing the efficient use of technology. [1] According to Minister of Health, only about 50% commune health stations have adequate staff as of 2018. [2]

[1] Government of Vietnam. 5 December 2016. "Decision on approving the scheme on development and development of the health network of basic health in new situation". [https://thuvienphapluat.vn/van-ban/The-thao-Y-te/Quyet-dinh-2348-QD-TTg-De-an-xay-dung-phat-trien-mang-luoi-y-te-co-so-trong-tinh-hinh-moi-2016-333386.aspx]. Accessed 20 August 2020. [2] Baomoi news. 17 October 2018. "More than 50% of medical personnel at 26 commune medical stations have shortage in workforce". [http://www.nhandan.com.vn/suckhoe/tin-tuc/item/37946902-thieu-hon-50-nhan-luc-y-te-tai-26-tram-y-te-xadiem.html] Accessed 20 August 2020.

4.1.2 Facilities capacity

4.1.2a

Hospital beds per 100,000 people Input number

Current Year Score: 260

2014

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: 0

There is insufficient evidence that Vietnam has the capacity to isolate patients with highly communicable diseases in patient isolation facilities located within the country. In 2010, the government issued Decree No. 101/2010/ND-CP on provisions for medical isolation and quarantine. It discusses how to use isolation for highly infectious diseases, but does not recommend or describe the isolation technology. [1] Cho Ray and Vinmec Hospitals in Ho Chi Minh City have an isolation units, but there is



no additional information about the capacity of these units to isolate and treat patients with highly communicable diseases. [2,3] A news article from 2020 noted how Cho Ray hospital successfully treated COVID-19 patients in isolation units, but there is no additional information about the units. [4] There is no additional information from the Ministry of Health or the Ministry of Agriculture and Rural Development. [5,6]

- [1] Government of Vietnam. Decree No. 101/2010/N?-CP of 30 September 2019. "On regulating details on some articles of law on prevention and control of infectious disease regarding medical isolation, medical isolation enforcement and some specific anti-epidemic measures". [https://luatvietnam.vn/y-te/nghi-dinh-101-2010-nd-cp-chinh-phu-55884-d1.html] Accessed 20 August 2020.
- [2] Vietnam Plus, 24 June 2018. "One patient dies of swine flu at Cho Ray Hospital". [https://en.vietnamplus.vn/one-patient-dies-of-swine-flu-at-cho-ray-hospital/133407.vnp] Accessed 20 August 2020.
- [3] Vinmec. Vinmec was awarded "Vietnam's Most Improved Hospital" [https://www.vinmec.com/en/gioi-thieu/giai-thuong/vinmec-was-awarded-vietnams-most-improved-hospital-by-asian-hospital-management-association/] Accessed 20 August 2020.
- [4] Nha Dhan. 2020. PM hails efforts of Cho Ray Hospital in successfully treating patient with nCoV infection. [https://en.nhandan.org.vn/society/item/8361202-pm-hails-efforts-of-cho-ray-hospital-in-successfully-treating-patient-with-ncov-infection.html] Accessed 20 August 2020.
- [5] Ministry of Health. 2020. "News activity". [http://moh.gov.vn] Accessed 20 August 2020.
- [6] Ministry of Agriculture and Rural Development. 2020. "Party work (Trang ch? Công tác??ng)".

[https://www.mard.gov.vn/Pages/cong-tac-dang.aspx] Accessed 20 August 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: 0

There is no public evidence that Vietnam has demonstrated capacity to expand isolation capacity or has developed, updated or tested a plan to expand isolation capacity in response to an infectious disease outbreak in the past two years. In 2010, the government issued Decree No. 101/2010/ND-CP on provisions for medical isolation and quarantine. It discusses how to use isolation for highly infectious diseases, but does not recommend or describe plans for expanding isolation capacity. [1] A news article from 2020 noted that hospitals had successfully treated COVID-19 patients in isolation units, but there is no additional information about expanding isolation capacity. [2] Websites for the Ministries of Health, Defence, Public Security, Trade and Industry and the Disaster Management Authority do not have additional evidence. [3,4,5,6]

- [1] Government of Vietnam. Decree No. 101/2010/N-CP of 30 September 2019. "On regulating details on some articles of law on prevention and control of infectious disease regarding medical isolation, medical isolation enforcement and some specific anti-epidemic measures". [https://luatvietnam.vn/y-te/nghi-dinh-101-2010-nd-cp-chinh-phu-55884-d1.html] Accessed 9 May 2021.
- [2] Nha Dhan. 2020. PM hails efforts of Cho Ray Hospital in successfully treating patient with nCoV infection. [https://en.nhandan.org.vn/society/item/8361202-pm-hails-efforts-of-cho-ray-hospital-in-successfully-treating-patient-with-ncov-infection.html] Accessed 9 May 2021.
- [3] Ministry of Health. Homepage. [https://moh.gov.vn/] Accessed 9 May 2021



- [4] Ministry of Defense. Homepage. [http://mod.gov.vn/wps/portal/en] Accessed 9 May 2021
- [5] Emergency operation center. Homepage [http://vncdc.gov.vn/vi/van-phong-eoc/153/gioi-thieu-van-phong-eoc] Accessed 9 May 2021
- [6] Ministry of Trade and Industry. Homepage [http://www.moit.gov.vn/] Accessed 9 May 2021

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

In Vietnam, there is a national procurement protocol in place for the Ministries of Health and Agriculture to acquire laboratory and medical supplies. Procurement of all laboratory equipment and medical supplies including media, reagents for performance of laboratory tests, and PPE must follow the Law on Public Procurement, 43/2013/QH13, approved on Oct 26, 2013, and Decree No 63/2014/ND-CP dated August 15, 2014, which contains stipulations related to selection of contractors. [1,2] Government agencies, including the Ministries of Health and Agriculture, are required to specify the goals and objectives of the work for which laboratory or medical equipment is being procured, the total value of services, and the source of funding. [1,2,3,4] E-procurement is available through the National E-Procurement System (VNEPS). [5,6] The Joint External Evaluation for Vietnam, conducted in October/November 2016, has no evidence of this. [7]

- [1] Government of Vietnam. Law No. 43/2013/QH13 of 26 October 2013. "Law on Public Procurement".
- [http://www.moj.gov.vn/vbpq/lists/vn%20bn%20php%20lut/view_detail.aspx?itemid=28825] Accessed 19 August 2020
- [2] Government of Vietnam. Decree No 63/2014/ND-CP of August 15, 2014. "On bidding provisions".
- [https://thuvienphapluat.vn/van-ban/Dau-tu/Nghi-dinh-63-2014-ND-CP-huong-dan-Luat-Dau-thau-ve-lua-chon-nha-thau-237481.aspx] Accessed 19 August 2020
- [3] Ministry of Health. "Homepage" [https://moh.gov.vn/] Accessed 9 May 2021.
- [4] Ministry of Agriculture. "Homepage". [https://www.mard.gov.vn/Pages/default.aspx] Accessed 9 May 2021.
- [5] Vietnam Investment Review. 20 August 2018. "E-procurement: an opportunity for fair competition".
- [https://www.vir.com.vn/e-procurement-an-opportunity-for-fair-competition-61879.html] Accessed 19 August 2020
- [6] National bidding. "Instructions". [http://thongtindauthau.com.vn/BaiVietDetail?id=44&titel=huong-dan-thanh-toan-tructuyen-tren-mang-dau-thau-quoc-gia] Accessed 9 May 2021.
- [7] World Health Organisation (WHO). 28 October 4 November 2016. "Joint External Evaluation of IHR Core Capacities of Vietnam". [http://www.who.int/ihr/publications/WHO-WHE-CPI-2017.21/en/] Accessed 19 August 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: 0

There is insufficient publicly available evidence of the country maintaining a stockpile of medical supplies (e.g. MCMs, medicines, vaccines, medical equipment, PPE) during an emergency, although there is evidence that stockpiling efforts exist. The Joint External Evaluation (JEE) that was completed in October/November 2016 concluded that "No overarching plan exists for medical countermeasures and personnel deployment". [1] However, some disease-specific plans describe the process for getting medical supplies and countermeasures in case of an emergency. For example, a circular on dengue fever and measles states that "Drug-producing, trading and importing establishments based in their respective localities shall have plans on stockpiling, supplying and promptly supplying drugs for treatment needs, especially ensuring drug availability." However, there are no additional details on how stockpiling is implemented. [2] The plan for Hand Foot and Mouth Disease has a similar clause and lacks additional information. [3] In April 2020, local news reported that the government had stockpiled 60 million masks. [4] However, websites for the Ministries of Health, Defence, Public Security and the Disaster Management Authority do not have additional evidence. [5,6,7,8]

- [1] World Health Organisation (WHO). 28 October 4 November 2016. "Joint External Evaluation of IHR Core Capacities of Vietnam". [http://www.who.int/ihr/publications/WHO-WHE-CPI-2017.21/en/] Accessed 20 August 2020.
- [2] Ministry of Health. Circular No. 16632/QLD-KD of 28 August 2018. "To supply drugs for dengue fever and measles prevention". [https://thuvienphapluat.vn/cong-van/The-thao-Y-te/Cong-van-16632-QLD-KD-2018-cung-ung-thuoc-phong-chong-benh-sot-xuat-huyet-va-benh-soi-392631.aspx] Accessed 20 August 2020.
- [3] Ministry of Health. Circular No. 19043/QLD-KD of 9 October 2018. "To supply drugs for HFM disease prevention" [https://thuvienphapluat.vn/cong-van/The-thao-Y-te/Cong-van-19043-QLD-KD-2018-dam-bao-cung-ung-thuoc-phong-dieutri-benh-tay-chan-mieng-396605.aspx] Accessed 20 August 2020.
- [4] LaoDong News. April 2020. Stockpiles 60 millions of masks. [https://laodong.vn/thi-truong/chua-du-tru-du-60-trieu-chiec-khau-trang-y-te-hep-duong-xuat-ngoai-801000.ldo]. Accessed 19 August 2020
- [5] Ministry of Health. "Homepage".
- [http://moh.gov.vn/pages/index.aspx?ReturnUrl=%2f_layouts%2fAuthenticate.aspx%3fSource%3d%252F&Source=%2F] Accessed 20 August 2020
- [6] Ministry of Defence. "Homepage". [http://www.mod.gov.vn/wps/portal/] Accessed 20 August 2020
- [7] Ministry of Public Security. "Homepage". [http://bocongan.gov.vn/] Accessed 20 August 2020
- [8] Disaster Management Authority. "Homepage".[http://dmc.gov.vn/?lang=vi-VN] Accessed 20 August 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 no publicly available evidence of an overarching plan to stockpile laboratory supplies during an emergency, although there is evidence that stockpiling efforts exist. The Joint External Evaluation (JEE) that was completed in October/November 2016 concluded that "No overarching plan exists for medical countermeasures and personnel deployment". [1] However, some disease-specific plans describe the process for getting countermeasures in case of an emergency. For example, a circular on dengue fever and measles states that "Drug-producing, trading and importing establishments based in their respective localities shall have plans on stockpiling, supplying and promptly supplying drugs for treatment needs, especially ensuring drug availability." [2] The plan for Hand Food and Mouth Disease has a similar clause. [3] In April 2020, local news reported that the government had stockpiled 60 million masks. [4] However, websites for the Ministries of Health, Defence,



Public Security and the Disaster Management Authority do not have additional evidence. [5,6,7,8]

- [1] World Health Organisation (WHO). 28 October 4 November 2016. "Joint External Evaluation of IHR Core Capacities of Vietnam". [http://www.who.int/ihr/publications/WHO-WHE-CPI-2017.21/en/] Accessed 20 August 2020.
- [2] Ministry of Health. Circular No. 16632/QLD-KD of 28 August 2018. "To supply drugs for dengue fever and measles prevention". [https://thuvienphapluat.vn/cong-van/The-thao-Y-te/Cong-van-16632-QLD-KD-2018-cung-ung-thuoc-phong-chong-benh-sot-xuat-huyet-va-benh-soi-392631.aspx] Accessed 20 August 2020.
- [3] Ministry of Health. Circular No. 19043/QLD-KD of 9 October 2018. "To supply drugs for HFM disease prevention" [https://thuvienphapluat.vn/cong-van/The-thao-Y-te/Cong-van-19043-QLD-KD-2018-dam-bao-cung-ung-thuoc-phong-dieutri-benh-tay-chan-mieng-396605.aspx] Accessed 20 August 2020.
- [4] LaoDong News. April 2020. Stockpiles 60 millions of masks. [https://laodong.vn/thi-truong/chua-du-tru-du-60-trieu-chiec-khau-trang-y-te-hep-duong-xuat-ngoai-801000.ldo]. Accessed 19 August 2020
- [5] Ministry of Health. "Homepage".
- [http://moh.gov.vn/pages/index.aspx?ReturnUrl=%2f_layouts%2fAuthenticate.aspx%3fSource%3d%252F&Source=%2F] Accessed 20 August 2020
- [6] Ministry of Defence. "Homepage". [http://www.mod.gov.vn/wps/portal/] Accessed 20 August 2020
- [7] Ministry of Public Security. "B? Công an". [http://bocongan.gov.vn/] Accessed 20 August 2020
- [8] Disaster Management Authority. "Tài li?u ???c xem nhi?u".[http://dmc.gov.vn/?lang=vi-VN] Accessed 20 August 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 Vietnam conducts or requires an annual review of the national stockpile to ensure the supply is sufficient for a public health emergency. The Joint External Evaluation (JEE) that was completed in October/November 2016 concluded that "No overarching plan exists for medical countermeasures and personnel deployment". [1] However, some disease-specific plans describe the process for getting medical supplies and countermeasures in case of an emergency. For example, a circular on dengue fever and measles states that "Drug-producing, trading and importing establishments based in their respective localities shall have plans on stockpiling, supplying and promptly supplying drugs for treatment needs, especially ensuring drug availability." However, there are no additional details on how stockpiling is implemented or reviewed. [2] The plan for Hand Food and Mouth Disease has a similar clause and lacks additional information. [3] Websites for the Ministries of Health, Defence, Public Security and the Disaster Management Authority do not have additional evidence. [4,5,6,7]

- [1] World Health Organisation (WHO). 28 October 4 November 2016. "Joint External Evaluation of IHR Core Capacities of Vietnam". [http://www.who.int/ihr/publications/WHO-WHE-CPI-2017.21/en/] Accessed 20 August 2020.
- [2] Ministry of Health. Circular No. 16632/QLD-KD of 28 August 2018. "To supply drugs for dengue fever and measles prevention". [https://thuvienphapluat.vn/cong-van/The-thao-Y-te/Cong-van-16632-QLD-KD-2018-cung-ung-thuoc-phong-chong-benh-sot-xuat-huyet-va-benh-soi-392631.aspx] Accessed 20 August 2020.
- [3] Ministry of Health. Circular No. 19043/QLD-KD of 9 October 2018. "To supply drugs for HFM disease prevention" [https://thuvienphapluat.vn/cong-van/The-thao-Y-te/Cong-van-19043-QLD-KD-2018-dam-bao-cung-ung-thuoc-phong-dieutri-benh-tay-chan-mieng-396605.aspx] Accessed 20 August 2020.
- [4] Ministry of Health. "Homepage".

[http://moh.gov.vn/pages/index.aspx?ReturnUrl=%2f layouts%2fAuthenticate.aspx%3fSource%3d%252F&Source=%2F]



Accessed 20 August 2020

- [5] Ministry of Defence. "Homepage". [http://www.mod.gov.vn/wps/portal/] Accessed 20 August 2020
- [6] Ministry of Public Security. "Homepage". [http://bocongan.gov.vn/] Accessed 20 August 2020
- [7] Disaster Management Authority. "Homepage".[http://dmc.gov.vn/?lang=vi-VN] Accessed 20 August 2020

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 Vietnam has a general plan or mechanism leverage domestic manufacturing capacity to produce medical supplies (e.g. MCMs, medicines, vaccines, equipment, PPE) for national use during a public health emergency or a plan to procure supplies during a public emergency. The Ministries of Health, Defence and Public Security and the Disaster Management Authority do not publicly available information on this. [1,2,3,4] Although there is no general plan to address this, the government has shown during the COVID-19 pandemic that it can rapidly implement these measures to respond to the public need. The Prime Minister issued Directive 15/CT-TTg in March 2020, which gave the government the power to direct the private sector to provide "equipment, medicines, medical supplies and prevention and anti-epidemic options." [5] There is no additional information in the law or from the General Department of Preventative Medicine. [6] The national laboratories (National Institute of Hygiene and Epidemiology (NIHE), Nha Trang Pasteur Institute, Central Highlands Institute of Hygiene and Epidemiology) do not publish additional information about this. [7,8] There is no national public health institute. [6]

- [1] Ministry of Health. "Homepage". [http://moh.gov.vn] Accessed 20 August 2020.
- [2] Ministry of Defence. "Homepage". [http://www.mod.gov.vn/wps/portal/] Accessed 20 August 2020.
- [3] Ministry of Public Security. "Homepage". [http://bocongan.gov.vn/] Accessed 20 August 2020.
- [4] Disaster Management Authority. "Homepage".[http://dmc.gov.vn/?lang=vi-VN] Accessed 20 August 2020
- [5] Government of Vietnam. 2020. Directive 15/CT-TTg. [https://thuvienphapluat.vn/van-ban/the-thao-y-te/chi-thi-15-ct-ttg-2020-quyet-liet-thuc-hien-dot-cao-diem-phong-chong-dich-covid-19-438342.aspx] Accessed 20 August 2020.
- [6] General Department of Preventative Medicine. 2020. "Infectious diseases." [http://vncdc.gov.vn/vi/cac-hoat-dong] Accessed 13 September 2020
- [6] National Institute of Hygiene and Epidemiology. "About us" [https://nihe.org.vn/gioi-thieu#gioi-thieu-chung] Accessed 13 September 2020
- [8] Nha Trang Pasteur Institute. "Nha Trang Pasteur Institute." [http://pasteur-nhatrang.org.vn/] Accessed 13 September 2020
- [6] Ministry of Health. "Site diagram". [https://moh.gov.vn/so-o-trang] Accessed 13 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 insufficient evidence that Vietnam has a general plan or mechanism that requires private companies to produce laboratory supplies, if directed to do so by the government. The Ministries of Health, Defence and Public Security and the Disaster Management Authority do not publicly available information on this. [1,2,3,4] Although there is no general plan to address this, the government has shown during the COVID-19 pandemic that it can rapidly implement these measures to respond to the public need. The Prime Minister issued Directive 15/CT-TTg in March 2020, which gave the government the power to direct the private sector to provide "equipment, medicines, medical supplies and prevention and anti-epidemic options." [5] There is no additional information in the law or from the General Department of Preventative Medicine. [6] The national laboratories (National Institute of Hygiene and Epidemiology (NIHE), Nha Trang Pasteur Institute, Central Highlands Institute of Hygiene and Epidemiology) do not publish additional information about this. [7,8] There is no national public health institute. [6]

- [1] Government of Vietnam. 2020. Directive 15/CT-TTg. [https://thuvienphapluat.vn/van-ban/the-thao-y-te/chi-thi-15-ct-ttg-2020-quyet-liet-thuc-hien-dot-cao-diem-phong-chong-dich-covid-19-438342.aspx] Accessed 20 August 2020.
- [2] Ministry of Health. 2020. "Activity news". [https://moh.gov.vn/hoat-dong-cua-lanh-dao-bo] Accessed 13 September 2020.
- [3] General Department of Preventative Medicine. 2020. "Infectious diseases." [http://vncdc.gov.vn/vi/cac-hoat-dong] Accessed 13 September 2020
- [4] National Institute of Hygiene and Epidemiology. "About us" [https://nihe.org.vn/gioi-thieu#gioi-thieu-chung] Accessed 13 September 2020
- [5] Nha Trang Pasteur Institute. "Nha Trang Pasteur Institute." [http://pasteur-nhatrang.org.vn/] Accessed 13 September 2020
- [6] Ministry of Health. "Site diagram". [https://moh.gov.vn/so-o-trang] Accessed 13 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 of a plan for dispensing medical countermeasures for national use during a public health emergency (i.e. antibiotics, vaccines, therapeutics and diagnostics) in Vietnam. The Joint External Evaluation (JEE) that was completed in October/ November 2016 concluded that "No overarching plan exists for medical countermeasures and personnel deployment". [1] However, some disease-specific plans describe the process for getting and deploying countermeasures in case of an emergency. For example, a circular on dengue fever and measles states that "Drug-producing, trading and importing establishments based in their respective localities shall have plans on stockpiling, supplying and promptly supplying drugs for treatment needs, especially ensuring drug availability." [2] The plan for Hand Food and Mouth



Disease has a similar clause. [3] Websites for the Ministries of Health, Defence, Public Security and the Disaster Management Authority do not have additional evidence. [4,5,6,7]

- [1] World Health Organisation (WHO). 28 October 4 November 2016. "Joint External Evaluation of IHR Core Capacities of Vietnam". [http://www.who.int/ihr/publications/WHO-WHE-CPI-2017.21/en/] Accessed 19 August 2020
- [2] Ministry of Health. Circular No. 16632/QLD-KD of 28 August 2018. "To supply drugs for dengue fever and measles prevention". [https://thuvienphapluat.vn/cong-van/The-thao-Y-te/Cong-van-16632-QLD-KD-2018-cung-ung-thuoc-phong-chong-benh-sot-xuat-huyet-va-benh-soi-392631.aspx] Accessed 19 August 2020
- [3] Ministry of Health. Circular No. 19043/QLD-KD of 9 October 2018. "To supply drugs for HFM disease prevention" [https://thuvienphapluat.vn/cong-van/The-thao-Y-te/Cong-van-19043-QLD-KD-2018-dam-bao-cung-ung-thuoc-phong-dieutri-benh-tay-chan-mieng-396605.aspx] Accessed 19 August 2020
- [4] Ministry of Health. "B? Y t?". [https://moh.gov.vn/] Accessed 19 August 2020
- [5] Ministry of Defence. "B? Qu?c phòng". [http://www.mod.gov.vn/wps/portal/] Accessed 19 August 2020
- [6] Ministry of Public Security. "B? Công an". [http://bocongan.gov.vn/] Accessed 19 August 2020
- [7] Disaster Management Authority. "Tài li?u ???c xem nhi?u".[http://dmc.gov.vn/?lang=vi-VN] Accessed 19 August 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: 0

There is insufficient publicly available evidence that Vietnam has an overarching plan to receive health personnel from other countries to respond to a public health emergency. The Joint External Evaluation (JEE) that was completed in 2016 concluded that there is "no overarching plan that describes and formalizes procedures for sending and receiving... health personnel during emergencies". However, there is evidence that Vietnam has processes in place which facilitate the arrival of health personnel The JEE report mentions that "[m]echanisms are in place to expedite the visa processing time for incoming international experts during a public health emergency". [1] Disease-specific plans for dengue fever, measles and Hand Food and Mouth Disease do not address receiving health personnel from other countries. [2,3] Websites for the Ministries of Health, Defence, Public Security and the Disaster Management Authority do not have additional evidence. [4,5,6,7] Despite the lack of a publicly available plan, there is evidence that Vietnam has received medical professionals during the COVID-19 emergency. In August 2020, Cuban experts went to Vietnam, to share practical experiences in the prevention of the COVID-19 epidemic with the Vietnamese military and medical forces. [8]

- [1] World Health Organisation (WHO). 28 October 4 November 2016. "Joint External Evaluation of IHR Core Capacities of Vietnam". [http://www.who.int/ihr/publications/WHO-WHE-CPI-2017.21/en/] Accessed 20 August 2020.
- [2] Ministry of Health. Circular No. 16632/QLD-KD of 28 August 2018. "To supply drugs for dengue fever and measles prevention". [https://thuvienphapluat.vn/cong-van/The-thao-Y-te/Cong-van-16632-QLD-KD-2018-cung-ung-thuoc-phong-chong-benh-sot-xuat-huyet-va-benh-soi-392631.aspx] Accessed 20 August 2020.
- [3] Ministry of Health. Circular No. 19043/QLD-KD of 9 October 2018. "To supply drugs for HFM disease prevention" [https://thuvienphapluat.vn/cong-van/The-thao-Y-te/Cong-van-19043-QLD-KD-2018-dam-bao-cung-ung-thuoc-phong-dieutri-benh-tay-chan-mieng-396605.aspx] Accessed 20 August 2020.
- [4] Ministry of Health. "Homepage". [http://moh.gov.vn] Accessed 20 August 2020.
- [5] Ministry of Defence. "Homepage". [http://www.mod.gov.vn/wps/portal/] Accessed 20 August 2020.



- [6] Ministry of Public Security. "Homepage". [http://bocongan.gov.vn/] Accessed 20 August 2020.
- [7] Disaster Management Authority. "Tài li?u ???c xem nhi?u".[http://dmc.gov.vn/?lang=vi-VN] Accessed 20 August 2020
- [8] Tuoitre News. August 2020. Cuba supports Vietnam in COVID-19. [https://tuoitre.vn/cuba-tang-thuoc-cu-chuyen-gia-sang-viet-nam-ho-tro-chong-dich-covid-19-20200805182228094.htm] Accessed 19 August 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: 93.8

2014

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: 170.01

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 insufficient evidence that Vietnam has made a general committment to to providing prioritized healthcare services to healthcare workers who become sick as a result of responding to a public health emergency. The Ministries of Health, Defence and Public Security and the Disaster Management Authority do not publicly available information on this. [1,2,3,4] Also, there is no additional information in the law or from the General Department of Preventative Medicine. [5] The national laboratories (National Institute of Hygiene and Epidemiology (NIHE), Nha Trang Pasteur Institute, Central Highlands Institute of Hygiene and Epidemiology) do not publish additional information about this. [6,7] There is no national public health institute. [8] Although there is no general committment, the government has responded to meet the needs of healthcare workeds during the COVID-19 pandemic. The Department of Health is urgently implementing activities to take care of the health and wellness of doctors and other healthcare professionals during the COVID-19 epidemic response peak period. A series of activities have been and continue to be implemented, including: (1) Supplementing the number of doctors and nurses who alternately work in the city's field hospitals (300-bed field hospital in Cu Chi and the 600-bed COVID-19 treatment hospital in Can Gio) in accordance with the disease response treatment plan that the Department of Health has developed when there are 50-100 cases positive; (2) Deploying places to rest and eat to help doctors and nurses recover health after shift. The current leading hospitals in charge of treatment (Tropical Disease Hospital, Cu Chi Field Hospital, COVID-19 Can Gio Treatment Hospital), have registered businesses to support hotels exclusively for medical staff, doctors participating in epidemic prevention and control in the city. The government has also implemented specific policies for health workers participating in COVID-19 epidemic prevention and control in accordance with Resolution No. 37 / NQ-CP recently issued by the Prime Minister. [9]

- [1] Ministry of Health. "Homepage". [http://moh.gov.vn] Accessed 20 August 2020.
- [2] Ministry of Defence. "Homepage". [http://www.mod.gov.vn/wps/portal/] Accessed 20 August 2020.
- [3] Ministry of Public Security. "Homepage". [http://bocongan.gov.vn/] Accessed 20 August 2020.
- [4] Disaster Management Authority. "Tài li?u ???c xem nhi?u".[http://dmc.gov.vn/?lang=vi-VN] Accessed 20 August 2020
- [5] General Department of Preventative Medicine. 2020. "Infectious diseases." [http://vncdc.gov.vn/vi/cac-hoat-dong] Accessed 13 September 2020
- [6] National Institute of Hygiene and Epidemiology. "About us" [https://nihe.org.vn/gioi-thieu#gioi-thieu-chung] Accessed 13 September 2020
- [7] Nha Trang Pasteur Institute. "Nha Trang Pasteur Institute." [http://pasteur-nhatrang.org.vn/] Accessed 13 September 2020
- [8] Ministry of Health. "Site diagram". [https://moh.gov.vn/so-o-trang] Accessed 13 September 2020
- [9] Prime minister. March 2020. implement specific policies for health workers participating in COVID-19.

[https://thuvienphapluat.vn/van-ban/tai-chinh-nha-nuoc/Nghi-quyet-37-NQ-CP-2020-che-do-dac-thu-trong-phong-chong-dich-COVID-19-438473.aspx] Accessed 19 August 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: 0

There is insufficient evidence of a system in place for public health officials and healthcare workers to communicate during a public health emergency. The Joint External Evaluation (JEE) that was completed in November 2016 noted that a risk communication plan was developed in 2013 and would continue to be built through 2021. The risk communication plan includes ministries, civil society organizations, international partners, and staff in hospitals and other medical facilities. A SOP for risk communications is in use, but there is a need to strengthen IHR capabilities and there is no evidence of two-way communication. The JEE also noted that the risk communications system has been tested in a number of real-life events including the measles outbreak in 2014 and Zika cases in 2016. The JEE does not describe how these systems work. [1] The National One Health Strategic Plan for Zoonotic Disease also addresses the need to improve already existing risk communication during emergencies between government and health personnel and it does not mention two-way communication. There is no description of the systems used. [2] Websites for the Ministries of Health, Defence, Public Security and the Disaster Management Authority do not have additional evidence. [3,4,5,6] In Vietnam, the COVID-19 epidemic has begun to spread to the community, appearing to infect health workers. Deputy Minister of Health Nguyen Truong Son has just signed to promulgate Directive 6 / CT-BYT on strengthening measures to prevent and control COVID-19 epidemics in health facilities. [7]

- [1] World Health Organisation (WHO). 28 October 4 November 2016. "Joint External Evaluation of IHR Core Capacities of Vietnam". [http://www.who.int/ihr/publications/WHO-WHE-CPI-2017.21/en/] Accessed 19 Agust 2020.
- [2] Ministry of Health and Ministry of Agriculture and Rural Development. December 2016. "The Vietnam One Health Strategic Plan for Zoonotic Diseases 2016 2020".

[http://onehealth.org.vn/upload/upload/National%20One%20Health%20Strategic%20Plan%20for%20Zoonotic%20Diseases_ EN.pdf] Accessed 19 Agust 2020

- [3] Ministry of Health. "B? Y t?". [https://moh.gov.vn/] Accessed 19 August 2020
- [4] Ministry of Defence. "B? Qu?c phòng". [http://www.mod.gov.vn/wps/portal/] Accessed 19 August 2020
- [5] Disaster Management Authority. "News".[http://dmc.gov.vn/tin-trong-nuoc-quoc-te-pt32.html?lang=vi-VN] Accessed 19 August 2020.
- [6] Ministry of Public Security. "B? Công an". [http://bocongan.gov.vn/] Accessed 19 August 2020
- [7] Ministry of Health. March 2020. Strengthens measures to prevent and control COVID-19. [https://ncov.moh.gov.vn/-/bo-y-te-chi-thi-tang-cuong-cac-bien-phap-phong-chong-dich-covid-19-trong-co-so-y-te]. Accessed 19 August 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 insufficient evidence of a system in place for public health officials and healthcare workers to communicate during a public health emergency. The Joint External Evaluation (JEE) that was completed in November 2016 noted that a risk communication plan was developed in 2013 and would continue to be built through 2021. The risk communication plan includes ministries, civil society organizations, international partners, and staff in hospitals and other medical facilities. A SOP for risk communications is in use, but there is a need to strengthen IHR capabilities. The JEE also noted that the risk communications system has been tested in a number of real-life events including the measles outbreak in 2014 and Zika cases in 2016. The JEE does not describe how these systems work. [1] The National One Health Strategic Plan for Zoonotic Disease also addresses the need to improve already existing risk communication during emergencies between government and health personnel. However there is no description of the systems used. [2] Websites for the Ministries of Health, Defence, Public Security and the Disaster Management Authority do not have additional evidence. [3,4,5,6]

- [1] World Health Organisation (WHO). 28 October 4 November 2016. "Joint External Evaluation of IHR Core Capacities of Vietnam". [http://www.who.int/ihr/publications/WHO-WHE-CPI-2017.21/en/] Accessed19 Agust 2020.
- [2] Ministry of Health and Ministry of Agriculture and Rural Development. December 2016. "The Vietnam One Health Strategic Plan for Zoonotic Diseases 2016 2020".

[http://onehealth.org.vn/upload/upload/National%20One%20Health%20Strategic%20Plan%20for%20Zoonotic%20Diseases_ EN.pdf] Accessed 19 Agust 2020

- [3] Ministry of Health. "B? Y t?". [https://moh.gov.vn/] Accessed 19 August 2020
- [4] Ministry of Defence. "B? Qu?c phòng". [http://www.mod.gov.vn/wps/portal/] Accessed 19 August 2020
- [5] Disaster Management Authority. "News".[http://dmc.gov.vn/tin-trong-nuoc-quoc-te-pt32.html?lang=vi-VN] Accessed 19 August 2020.
- [6] Ministry of Public Security. "B? Công an". [http://bocongan.gov.vn/] Accessed 19 August 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 evidence that Vietnam monitors the national public health system and tracks the number of health care associated infections that take place in healthcare facilities. Vietnam has some measures to track infection prevention that have been in place since 2009. [1] The Joint External Evaluation, that was completed in November 2016 concluded that "a national action plan for improving infection prevention and control has been developed and implementation has started" and "Planning for standardized health care associated infection surveillance has started in several central hospitals". However, it does not confirm that there is a system to monitor HCAIs. [1] In 2018, the Ministry of Health issued Circular 16/2018/TT-BYT that prescribes measures for the prevention and control of infectious diseases, the infection control system and the responsibility for the control of infections in the State and private medical care establishments. [2] There is some evidence that the government tracked data. A 2017 study involved nearly 10,000 patients in 10 hospitals; hospital infection rates were 5.8% and hospital pneumonia accounted for 55.4% of cases.[3] A 2018 update on progress in one health and AMR



initiatives stated that 16 hospitals had established an antibiotic stewardship program via the Viet Nam Resistance Project (VINARES) that monitors resistance patterns for hospital acquired infections in intensive care units, tracks antibiotic consumption, and institutes microbiological analyses to guide empiric and specific treatment. [4]

- [1] World Health Organisation (WHO). 28 October 4 November 2016. "Joint External Evaluation of IHR Core Capacities of Vietnam". [http://www.who.int/ihr/publications/WHO-WHE-CPI-2017.21/en/] Accessed 19 August 2020.
- [2] The Ministry of Health. Circular 16/2018/TT-BYT of 20 July 2018. "Provisions on control of infectious diseases in medical examination and treatment establishments". [https://luatvietnam.vn/y-te/thong-tu-16-2018-tt-byt-ve-kiem-soat-nhiem-khuan-trong-benh-vien-165762-d1.html] Accessed 19 August 2020.
- [3] NhanDan news. 18 April 2017. "Hospital infection is at an alarming rate". [http://www.nhandan.com.vn/suckhoe/tintuc/item/32638402-tinh-trang-nhiem-khuan-benh-vien-dang-o-muc-bao-dong.html]. Accessed 19 August 2020.
- [4] One Health Vietnam. 2018. "Viet nam one health strategic plan (OHSP) 2016 2020, Update on overall progress as of December 2017".

[https://onehealth.org.vn/upload/upload/OHSP%20Update%20Report%20for%20the%202018%20One%20Health%20Forum _EN%20Final.pdf] Accessed 19 August 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

In Vietnam, there is a national requirement for ethical review (e.g. from an ethics committee or via Institutional Review Board approval) before beginning a clinical trial. In 2017, the Ministry of Health issued Circular No. 45/2017/TT-BYT on the functions, duties and powers of the Ethics Council in National Biomedical Research. [1] The circular outlines research methodology, bioethics and review protocols. All biomedical studies related to human beings in Vietnam must be reviewed, commented, guided and approved by the Ethics Council. [1] The Administration of Science and Technology, which is a department of the MOH also briefly addresses bioethics. The administration states that three fundamental principles are respect, good work and equity, but there is no description of how these are applied in practice. [2]

- [1] Ministry of Health. Circular No. 45/2017/TT-BYT of 16 October 2017. "On the functions, duties and powers of the Ethics Council in National Biomedical Research". [https://luatvietnam.vn/y-te/thong-tu-45-2017-tt-byt-bo-y-te-118562-d1.html] Accessed 19 August 2020.
- [2] Ministry of Health, Administration of science technology and training. 8 September 2014. "Ethics council on biomedical study". [http://asttmoh.vn/hoi-dong-dao-duc-trong-nghien-cuu-y-sinh-hoc/] Accessed 19 August 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 public evidence that Vietnam has an expedited process for approving clinical trials for unregistered medical countermeasures to treat ongoing pandemics. In 2016 the Ministry of Health issued guidance for drug trials. The guidance outlines the process for going through clinical trials, but it does not make any special exceptions for unregistered medical countermeasures to treat ongoing pandemics. [1] The Joint External Evaluation that was concluded in November 2016 does not mention an expedited process for approving clinical trials for unregistered medical countermeasures to treat ongoing pandemics. [2] The websites for the Ministry of Health and Ministry of Science and Technology do not have additional information about clinical trials during ongoing pandemics. [3,4] Vaccine development during the COVID-19 epidemic has been fast-tracked, but there are no publicly available documents about expediting clinical trials. [5,6]

- [1] Ministry of Health. 24 January 2016. Guidance for drug trials, Clinical vaccination against a number of emergency diseases [https://thuvienphapluat.vn/cong-van/The-thao-Y-te/Cong-van-505-BYT-K2DT-huong-dan-thu-thuoc-Vac-xin-tren-lam-sang-phong-chong-dich-benh-khan-cap-9581.aspx]. Accessed 20 August 2020.
- [2] World Health Organisation (WHO). 28 October 4 November 2016. "Joint External Evaluation of IHR Core Capacities of Vietnam". [http://www.who.int/ihr/publications/WHO-WHE-CPI-2017.21/en/] Accessed 20 August 2020.
- [3] Ministry of Health. 2020. "homepage". [http://moh.gov.vn/News/Pages/TinHoatDongV2.aspx] Accessed 20 August 2020.
- [4] Ministry of Science and Technology. "Legal documents." [https://www.most.gov.vn/en/Pages/LegalDocument.aspx] Accessed 20 August 2020.
- [5] Ministry of Health. June 2020. Vaccine Made in Vietnam has huge progress. [https://ncov.moh.gov.vn/-/vac-xin-covid-19-made-in-vietnam-vuot-tien-o-du-kien]. Accessed 19 August 2020.
- [6] Tuoitre News. July 2020. Vietnam is about to test the COVID-19 vaccine in humans. [https://tuoitre.vn/viet-nam-sap-thunghiem-vacxin-ngua-covid-19-tren-nguoi-20200701080223073.htm]. Accessed 19 August 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

In Vietnam, there is a government agency responsible for approving new medical countermeasures for humans. The Drug Administration has the responsibility for approving medicines, vaccines and other therapeutics for humans. [1]

[1] Vietnam Drug Administration. "Ch?c n?ng nhi?m v?". [https://dav.gov.vn/chuc-nang-nhiem-vu-c1.html] Accessed 19 August 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 public evidence that Vietnam has an expedited process for approving medical countermeasures (MCM) for human use during public health emergencies. In 2016 the Ministry of Health issued guidance for drug trials that counteract emergency diseases. The guidance outlines the process for going through clinical trials, but it does not make any special exceptions for unregistered medical countermeasures to treat ongoing pandemics. [1] The Joint External Evaluation that was concluded in November 2016 does not mention an expedited process for approving clinical trials for unregistered medical countermeasures to treat ongoing pandemics. [2] The websites for the Ministry of Health and Ministry of Science and Technology do not have additional information about clinical trials during ongoing pandemics. [3,4] Vaccine development during the COVID-19 epidemic has been fast-tracked, but there are no publicly available documents about expediting approval of MCMs. [5,6]

- [1] Ministry of Health. 24 January 2016. Guidance for drug trials, Clinical vaccination against a number of emergency diseases [https://thuvienphapluat.vn/cong-van/The-thao-Y-te/Cong-van-505-BYT-K2DT-huong-dan-thu-thuoc-Vac-xin-tren-lam-sang-phong-chong-dich-benh-khan-cap-9581.aspx]. Accessed 20 August 2020.
- [2] World Health Organisation (WHO). 28 October 4 November 2016. "Joint External Evaluation of IHR Core Capacities of Vietnam". [http://www.who.int/ihr/publications/WHO-WHE-CPI-2017.21/en/] Accessed 20 August 2020.
- [3] Ministry of Health. 2020. "homepage". [http://moh.gov.vn/News/Pages/TinHoatDongV2.aspx] Accessed 20 August 2020.
- [4] Ministry of Science and Technology. "Legal documents." [https://www.most.gov.vn/en/Pages/LegalDocument.aspx] Accessed 20 August 2020.
- [5] Ministry of Health. June 2020. Vaccine Made in Vietnam has huge progress. [https://ncov.moh.gov.vn/-/vac-xin-covid-19-made-in-vietnam-vuot-tien-o-du-kien]. Accessed 19 August 2020.
- [6] Tuoitre News. July 2020. Vietnam is about to test the COVID-19 vaccine in humans. [https://tuoitre.vn/viet-nam-sap-thunghiem-vacxin-ngua-covid-19-tren-nguoi-20200701080223073.htm]. Accessed 19 August 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: 0

There is no public evidence that pandemics are integrated into the national risk reduction strategy or that there is a standalone national disaster risk reduction strategy for pandemics. The 2013 Law on Disaster Prevention describes environmental sanitation and disease prevention in areas affected by natural disasters, but it does not address reducing the risk of pandemics. [1] At the province and city level, there are some plans that address emergency response to influenza-like viruses, but there is no mention of disaster risk reduction. [2,3,4] In 2015, the Ministry of Health (MOH) issued a plan on responding to health disasters, but it does not mention any strategies to mitigate the risk of pandemics. [5] Neither the Joint External Evaluation for Vietnam, conducted in October/November 2016, nor the websites for the MOH and Disaster Management Authority have additional information on strategies to reduce the risks of pandemics. [6,7,8]

- [1] Government of Vietnam. 19 June 2013. "Law on Disaster Prevention". [https://luatvietnam.vn/tai-nguyen/luat-33-2013-qh13-quoc-hoi-79379-d1.html]. Accessed 19 August 2020.
- [2] People's Committee of DaNang. 4 March 2014. "Decision plan of action for emergency response to avian influenza viruses to human". [https://thuvienphapluat.vn/van-ban/The-thao-Y-te/Quyet-dinh-1339-QD-UBND-2014-ung-pho-khan-cap-chung-vi-rut-cum-gia-cam-nguy-hiem-nguoi-Da-Nang-217610.aspx]. Accessed 19 August 2020.
- [3] People's Committee of LamDong. 14 April 2014. "Decision plan of action for emergency response to avian influenza viruses to human". [https://thuvienphapluat.vn/van-ban/The-thao-Y-te/Quyet-dinh-728-QD-UBND-ung-pho-khan-cap-voi-chung-vi-rut-cum-gia-cam-Lam-Dong-2014-226697.aspx]. Accessed 19 August 2020.
- [4] People's Committee of HaNam. 12 March 2014. "Decision plan of action for emergency response to avian influenza viruses to human". [http://hanam.gov.vn/snnptnt/Pages/Ke-hoach-hanh-%C4%91ong-ung-pho-khan-cap-%C4%91oi-voi-cac-chung-vi-rut-cum-gia-cam-nguy-hiem-co-kha-nang-lay-s450720007.aspx]. Accessed 19 August 2020.
- [5] Ministry of Health. Circular No. 646/Q?-BYT of 13 February 2015. "Decision on Action plan on preparation and response to disaster of the health". [https://thuvienphapluat.vn/van-ban/The-thao-Y-te/Quyet-dinh-646-QD-BYT-2015-ung-pho-voithien-tai-cua-nganh-y-te-2015-2020-266684.aspx]. Accessed 19 August 2020.
- [6] World Health Organisation (WHO). 28 October 4 November 2016. "Joint External Evaluation of IHR Core Capacities of Vietnam". [http://www.who.int/ihr/publications/WHO-WHE-CPI-2017.21/en/] Accessed 19 August 2020.
- [7] Ministry of Health. 2018. "News activity (Tin ho?t??ng)". [http://moh.gov.vn/News/Pages/TinHoatDongV2.aspx] Accessed 19 August 2020.
- [8] Disaster Management Authority. "Tài li?u ???c xem nhi?u".[http://dmc.gov.vn/?lang=vi-VN] Accessed 19 August 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

Vietnam has cross-border agreements, protocols or MOUs with neighbouring countries, or as part of a regional group, with regards to public health emergencies. Vietnam is a member of the Mekong Region Sub-Regional Epidemic Surveillance (MBDS) through a Memorandum of Understanding that was signed in 2011. The MBDS network shares surveillance data with the goal to improve cross-border infectious disease outbreak investigation and response. The group is also developing expertise in epidemiological surveillance across the region; and enhancing communication between the countries. [1] In August 2014, the Vietnamese and Thai governments announced that they would work to enhance information sharing to fight emerging epidemics. [2]

- [1] Phommasack, Bounlay, et al. January 2013. "Mekong Basin Disease Surveillance (MBDS): a trust-based network." [https://www.researchgate.net/publication/235383684_Mekong_Basin_Disease_Surveillance_MBDS_a_trust-based network] Accessed 19 August 2020.
- [2] Hanoi center for disease control. 24 August 2018. "Vietnam Thailand will strengthen cooperation in the field of preventive medicine". [http://ytdphanoi.gov.vn/557n/viet-nam--thai-lan-se-tang-cuong-huu-nghi-hop-tac-trong-linh-vuc-y-te-du-phong.html]. Accessed 19 August 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 Vietnam has cross-border agreements, protocols or MOUs with neighbouring countries, or as part of a regional group, with regards to animal health emergencies.

Vietnam, as party to ASEAN, signed an MOU with regard to animal health emergencies. The Agreement on the Establishment of the ASEAN Coordinating Centre for Animal Health and Zoonoses (ACCAHZ) was signed among all ASEAN members in 2016.[1] The ACCAHZ provides a platform for cooperation and collaboration among ASEAN members on animal health and zoonoses. For examples 1) prevention, control, and eradication of cross-border animal diseases, zoonoses, and 2) quick response to animal health emergencies.[2] As of May 2020, ACCAHZ has not been yet active as its agreement is pending final ratification by Indonesia. [3]

- [1] ASEAN. 2016. "Agreement on the establishment of the ASEAN Coordinating Centre for Animal Health and Zoonoses." [http://agreement.asean.org/media/download/20161108071810.pdf]. (Accessed 19 August 2020.
- [2] ASEAN. 2016. "ASEAN establishes Coordinating Centre 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 19 August 2020.
- [3] Yusof Ishak Institute. 18 May 2020. Perspective ISSUE: 2020 No. 47. "ASEAN's Covid-19 Pandemic Response: Practical Next Steps". [https://www.iseas.edu.sg/wp-content/uploads/2020/03/ISEAS_Perspective_2020_47.pdf]. Accessed August 2020.



5.3 INTERNATIONAL COMMITMENTS

5.3.1 Participation in international agreements

5.3.1a

Does the county 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: 1

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: 0

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 evidence that Vietnam has allocated national funds to improve capacity to address epidemic threats within the past three years. There is no publicly available information about this from Ministries of Health, Agriculture and Rural Development (MARD), and Finance and the Government budget website. [1,2,3,4] Although there is insufficient evidence of a general public committment, the Minister of Financne issued a statement in June 2020 to reallocate funds in response to the COVID-19 emergency. According to Minister Dinh Tien Dung, from the beginning of the year until now, the figure of natural disasters, epidemics, especially the COVID pandemic has had a great impact on the socio-economic situation, revenue, expenditure, and state budget balance in 2020. Specifically In terms of the budget, it is proposed to exempt, reduce and extend the deadline for paying taxes, fees and charges about 200 trillion VND. In which, there is a 5-month extension of tax and land rental for businesses and household businesses. Import tax exemption for medical supplies and equipment serving COVID-19 epidemic prevention; materials and inputs of enterprises of footwear, textiles, agricultural, forestry, product, aquaculture, mechanical engineering, supporting industries, automobile industry. Submit to the Standing Committee of the National Assembly to increase the personal income tax family allowances for taxpayers and their dependents. Submit to the National Assembly for consideration of 30% reduction of corporate income tax payable in 2020 for small businesses. Submit to the Standing Committee of the National Assembly for 30% reduction of environmental



protection tax on jet fuel, applicable to the end of 2020. 50% reduction of registration fee when registering cars manufactured or assembled domestically until the end of 2020. Coordinate with ministries and agencies to review and cut many types of fees and charges for businesses and people. [5]

- [1] Ministry of Health. 2020. "News activity (Tin noi bat)". [https://moh.gov.vn/tin-noi-bat] Accessed 10 October 2020
- [2] Ministry of Agriculture and Rural Development. 2020. "Party work (Trang chủ Công tác đảng)". [https://www.mard.gov.vn/Pages/cong-tac-dang.aspx] Accessed 10 October 2020

[3] Government of Vietnam. 2020. "Budget".

[http://chinhphu.vn/portal/page/portal/chinhphu/noidungsolieungansachnhanuoc?categoryld=100003909&articleId=10060 273] Accessed 10 Octobber 2020.

[4] Ministry of Finance. 2020. "Homepage".

[https://www.mof.gov.vn/webcenter/portal/btc?_afrLoop=211792250109000#%40%3F_afrLoop%3D211792250109000%26_adf.ctrl-state%3D7yil1yzvh_4] Accessed 10 October 2020.

[5] VGP News. June 2020. The Minister of Finance talks about ensuring the balance of the state budget.

[http://baochinhphu.vn/Tai-chinh/Bo-truong-Bo-Tai-chinh-noi-ve-bao-dam-can-doi-ngan-sach-nha-nuoc/398136.vgp] Accessed 19 August 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: 0

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

There is public evidence of a special emergency public financing mechanism that Vietnam can access in the face of a public health emergency and these funds come from donor institutions. According to the World Bank's list of countries are currently eligible to receive IDA resources, Vietnam graduated from IDA at the end of FY17, but will receive transitional support on an exceptional basis through the IDA18 period (FY18-20). [1] Vietnam, a developing member country of the Asian Development Bank, is also eligible for funds from the Asia Pacific Disaster Response Fund (APDRF). [2,3]

- [1] International Development Association (IDA). "Borrowing countries". [http://ida.worldbank.org/about/borrowing-countries]. Accessed 19 August 2020.
- [2] Asian Development Bank. "Members". [https://www.adb.org/about/members] Accessed 19 August 2020.
- [3] Asian Development Bank. "Asia Pacific Disaster Response Fund (APDRF)". [https://www.adb.org/site/funds/funds/asia-pacific-disaster-response-fund-apdrf] Accessed 19 August 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

current rear score.

There is evidence that in the past three years senior leaders in Vietnam have made a commitment to improve domestic or global capacity to address epidemic threats by expanding financing or requesting support to improve capacity. The Joint Statement from Health Ministers of ASEAN and the United States on COVID-19 Cooperation (30 April 2020) addresses funding and capacity development for future disease outbreaks by stating that that the Ministers "[welcome] the announcement of the ASEAN Member States' plan to establish the COVID-19 Response Fund to address COVID-19 and future public health emergencies, and a Regional Reserve of Medical Supplies to enable rapid response to emergency medical supply needs, with the partnership of external partners." [1] Additionally, there is evidence of policies which were implemented to invest in epidemics control and prevention. The office of the Prime Minister issued Decree No. 1125/Q?-TTg on health objectives through 2020 including communicable and non-communicable diseases. The decree had an implementation budget of approximately VND 19,400 billion (US\$880m), which is expected to be funded by both international donors and domestic sources. [2,3] However, there is no evidence of public statements by the Prime Minister or other senior leaders committing to the importance of epidemics capacity building. There is no additional information from



the Ministry of Finance, Ministry of Health, the World Health Organization or the Global Health Security Agenda that Vietnam has either requested funding or committed domestically or to other countries to improve capacity to address epidemic threats by providing financing or support. [4,5,6,7]

- [1] Association of Southeast Asian Nations (ASEAN). 30 April 2020. "Joint Statement Special Video Conference of Health Ministers of ASEAN and the United States in Enhancing Cooperation on Coronavirus Disease 2019 (COVID-19) Response". [https://asean.org/storage/2020/05/Adopted_ASEAN-US-Joint-Statement-on-COVID-19.pdf]. Accessed September 2020. [2] Government of Vietnam. Decree No. 1125/Q?-TTg of 31 July 2017. "On approving the health objectives program population in the 2016-2020 period". [https://luatvietnam.vn/y-te/quyet-dinh-1125-qd-ttg-thu-tuong-chinh-phu-116030-d1.html]. Accessed 19 August 2020.
- [3] WHO International Oversight and Advisory Committee. May 2018. "Viet Nam Mission Report". Accessed 19 August 2020. [4] Ministry of Finance. "Homepage".
- [http://www.mof.gov.vn/webcenter/portal/mof/r/f/lk_home?_afrLoop=66913359049010137] Accessed 19 August 2020.
- [5] Ministry of Health. "Homepage". [https://moh.gov.vn/] Accessed 19 August 2020.
- [6] WHO Vietnam. "Media Center". [http://www.wpro.who.int/vietnam/mediacentre/en/] Accessed 19 August 2020.
- [7] Global Health Security Agenda. "Homepage". [https://www.ghsagenda.org/] Accessed 19 August 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 Vietnam has requested finances from donors to improve its own domestic capacity to address epidemic threats in the past three years. However, there is no evidence Vietnam has provided technical support other countries to improve capacity to address epidemic threats in the past three years. According to the Global Health Security Funding Tracker, from 2014 to 2018, Vietnam has disbursed approximately US\$5.1m towards programmes to improve emergency response and preparedness and US\$2.2m towards General IHR implementation. For example, within the past three years, Canada contributed over US\$50,000 for a workshop on integrated arbovirus management, prevention, and control. There is, however, no evidence from the tracker that Vietnam has donated to other countries. [1] A mission report that was conducted in May 2018 by the International Oversight and Advisory Committee (IOAC) found that health security initiatives continue to be heavily dependent on donor funding. The IOAC recommended further reviews and plans to ensure that programmes can transition from donor-funding to being fully funded by the government. [2] There is no additional information from the Ministry of Finance, Ministry of Health, the World Health Organization or the Global Health Security Agenda that Vietnam has either requested funding or committed to support other countries to improve capacity to address epidemic threats by providing financing or support. [3,4,5,6] An open source search did not yield additional results.

- [1] Global Health Security Funding Tracker. [https://tracking.ghscosting.org/#/data]. Accessed 19 August 2020.
- [2] WHO International Oversight and Advisory Committee. May 2018. "Viet Nam Mission Report". Accessed 19 August 2020.
- [3] Ministry of Finance. "Homepage".
- [http://www.mof.gov.vn/webcenter/portal/mof/r/f/lk_home?_afrLoop=66913359049010137] Accessed 19 August 2020.
- [4] Ministry of Health. "Homepage". [https://moh.gov.vn/] Accessed 19 August 2020.
- [5] WHO Vietnam. "Media Center". [http://www.wpro.who.int/vietnam/mediacentre/en/] Accessed 19 August 2020



[6] Global Health Security Agenda. "Homepage". [https://www.ghsagenda.org/] Accessed 19 August 2020.

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 insufficient publicly available evidence for a policy for sharing genetic data, epidemiological data, clinical specimens, and/or isolated specimens (biological materials) with international organizations and/or other countries that goes beyond influenza. The Joint External Evaluation for Vietnam that was conducted in October and November 2016 confirmed that national reference laboratories send specimens to WHO collaborating centres and reference laboratories in Australia, Hong Kong, Japan and the United States. However, there is no mention of specific government commitments to share data. [1] Websites for the Ministry of Health, Ministry of Agriculture, Ministry of Science and Technology do not have any additional publicly available evidence. [2,3,4]

- [1] World Health Organisation (WHO). 28 October 4 November 2016. "Joint External Evaluation of IHR Core Capacities of Vietnam". [http://www.who.int/ihr/publications/WHO-WHE-CPI-2017.21/en/]. Accessed 19 August 2020.
- [2] Ministry of Health. "B? Y t?". [https://moh.gov.vn/] Accessed 19 August 2020.
- [3] Ministry of Agriculture and Rural Development. "Party work". [https://www.mard.gov.vn/Pages/cong-tac-dang.aspx] Accessed 19 August 2020.
- [4] Ministry of Science and Technology. "B? Khoa h?c và Công ngh?". [https://www.most.gov.vn/vn/Pages/Trangchu.aspx] Accessed 19 August 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 Vietnam has declined to share samples in accordance with the Pandemic Influenza Preparedness (PIP) framework in the past two years. The World Health Organisation has not reported any non-compliance in the past two year by Vietnam, and a search for media articles on this did not produce any results. [1]

[1] World Health Organization (WHO). Pandemic Influenza Preparedness (PIP) Framework. [https://www.who.int/influenza/pip/en/] Accessed 19 August 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 evidence that Vietnam has declined to share pandemic pathogen samples during an outbreak in the past two years. The World Health Organization (WHO) has not cited Vietnam for not sharing samples. [1] In fact, the World Health Organization (WHO) has praised Vietnam's achievements in disease prevention by addressing regional and global health issues such as influenza prevention, and specimen and information sharing. [2] There are no news articles about Vietnam not sharing COVID-19 samples with other countries. As a member of ASEAN, Vietnam has committed to sharing samples and research with other ASEAN countries. [3]

[1] World Health Organization (WHO). Pandemic Influenza Preparedness (PIP) Framework.

[https://www.who.int/influenza/pip/en/]. Accessed 20 Augut 2020.

[2] The Ministry of Foreign Affairs. WHO highly appreciates Vietnam in disease prevention.

[http://www.mofahcm.gov.vn/vi/mofa/nr040807104143/nr040807105001/ns080520083932]. Accessed 20 August 2020.

[3] ASEAN. 2020. Joint Statement by The ASEAN Defence Ministers on Defense Cooperation Against Disease Outbreaks. [https://asean.org/joint-statement-asean-defence-ministers-defense-cooperation-disease-outbreaks/]

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: 36
2020
Transparency International



6.1.1f

Accountability of public officials (Economist Intelligence score; 0-4, where 4=best)

Input number

Current Year Score: 1

2020

Economist Intelligence

6.1.1g

Human rights risk (Economist Intelligence score; 0-4, where 4=best)

Input number

Current Year Score: 1

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: 0

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: 3



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: 4

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: 4

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: 95.0

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: 0.69



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: 0.4

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

The most recent forecast of the rate of informal labour from the International Labour Organization (ILO) is from 2016. The estimated rate is 57.2%. [1]

[1] International Labour Organization (ILO). 2018. The 2016 Report on Informal Employment in Viet Nam. [https://www.ilo.org/hanoi/Whatwedo/Publications/WCMS_638330/lang--en/index.htm] Accessed 20 August 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: 1



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: 0

2021

Economist Intelligence Democracy Index

6.2.6 Inequality

6.2.6a

Gini coefficient

Scored 0-1, where 0=best

Current Year Score: 0.36

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: 1

2021

Economist Intelligence

6.4 ENVIRONMENTAL RISKS

6.4.1 Urbanization

6.4.1a

Urban population (% of total population)

Input number

Current Year Score: 36.63

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: 4.59

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



\sim	rror	٠+ ١	ear/	500	ro.	1
Lu	пег	11. 1	rear	SLU	10:	ш

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: 75.32

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: 569.4

2019

WHO

6.5.1c

Population ages 65 and above (% of total population)

Input number

Current Year Score: 7.55

2019

World Bank

6.5.1d

Prevalence of current tobacco use (% of adults)

Input number

Current Year Score: 28.94



2018

World Bank

6.5.1e

Prevalence of obesity among adults

Input number

Current Year Score: 2.1

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: 94.72

2017

UNICEF; Economist Impact

6.5.2b

Percentage of homes with access to at least basic sanitation facilities

Input number

Current Year Score: 83.52

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: 200.54



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