

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

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

### 1.1 ANTIMICROBIAL RESISTANCE (AMR)

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

##### 1.1.1a

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

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

**Current Year Score: 2**

Zambia does have a national AMR plan for the surveillance, detection and reporting of priority AMR pathogens. The Joint External Evaluation (JEE) report for the Republic of Zambia, completed in August 2017, states that Zambia completed a Multisectoral National Action Plan (NAP) on antimicrobial resistance in 2017. The report also states that "The Zambian National Public Health Institute (ZNPHI) performs all functions pertaining to disease surveillance, intelligence, and epidemic preparedness." [1] In the ZNPHI website they state as one of their objectives "Strengthen routine community and facility-based surveillance to ensure timely reporting of nationally notifiable diseases, immediate detection of changes in epidemiologic trends, aggregation, analysis and use of data and dissemination to stakeholders." [2] The WHO Publications website states that Zambia has "adopted the 'One Health' approach as proposed in the Global Action plan (GAP) on antimicrobial resistance." (Zambia's Multi-sectoral National Action Plan on Antimicrobial Resistance 2017-2027) Focus areas in this plan include surveillance, research and regulation. The plan includes the comment "Surveillance in agriculture will allow for early detection of pathogens that enter the food chain, and their resistance patterns and provide information to develop intervention strategies" Sub-activities in the plan include "Conduct consensus meeting to update and harmonise reporting systems for inclusion of AMR variables" and "Establish electronic platform for community-based surveillance reporting" [3]

[1] WHO. 2017. 'Joint External Evaluation of IHR Core capacities of the Republic of Zambia Mission report, 7-11 August 2017'.

[http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2017.50/en/]. Accessed 27 September 2020.

[2] Zambia National Public Health Institute (ZNPHI). 2018. [http://znphi.co.zm/]. Accessed 27 September 2020.

[3] WHO Publications. 2017. 'Multi-sectoral National Action Plan on Antimicrobial Resistance 2017-2027'.

[https://afro.who.int/publications/multi-sectoral-national-action-plan-antimicrobial-resistance-2017-2027]. Accessed 27 September 2020.

##### 1.1.1b

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

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

**Current Year Score: 2**

There is a national laboratory which tests for 7+1 priority AMR pathogens. The Joint External Evaluation (JEE) report for the Republic of Zambia, completed in August 2017, states that Zambia enrolled in the WHO Global Antimicrobial Resistance Surveillance System (GLASS) in 2016. The report states "All the priority pathogens recommended by the GLASS can be tested

in a single surveillance site, the University Teaching Hospital (UTH). In addition to UTH, the Chest Diseases Laboratory also performs susceptibility testing on isolates from cases of tuberculosis." It adds, as strengths, that "the surveillance site has already been collecting data on resistance rates for many years" and that Influenza Surveillance Sentinel Sites are available. [1] In the WHO website, on GLASS details, there is a table showing seven of the pathogens on the WHO '7+1 priority AMR pathogens'. The only one missing is Mycobacterium tuberculosis which, as shown above, can be tested at the Chest Diseases laboratory. [2] One of the objectives of the Zambia National Public Health Institute (ZNPHI) is to "Establish sentinel surveillance for selected priority conditions or syndromes using Zambia's ten regional hospitals and/or laboratories. The Surveillance and Disease Intelligence Cluster identifies priority disease conditions for sentinel surveillance." [3]

[1] WHO. 2017. 'Joint External Evaluation of IHR Core capacities of the Republic of Zambia Mission report, 7-11 August 2017'. [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2017.50/en/>]. Accessed 27 September 2020.

[2] WHO. June 2016. 'Global Antimicrobial Resistance Surveillance System (GLASS) Guide to preparing aggregated antimicrobial resistance data files'. [<https://apps.who.int/iris/bitstream/handle/10665/251557/WHO-DGO-AMR-2016.6-eng.pdf?sequence=1>]. Accessed 27 September 2020.

[3] Zambia National Public Health Institute (ZNPHI).2018. Surveillance and Disease Intelligence. [<http://znphi.co.zm/surveillance-and-disease-intelligence.html>]. Accessed 27 September 2020.

### 1.1.1c

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

Yes = 1 , No = 0

**Current Year Score: 0**

There is insufficient publicly available evidence of a government agency conducting environmental detection or surveillance activities for antimicrobial residues or AMR organisms in soil, waterways, etc. The Zambia National Public Health Institute (ZNPHI) is responsible for coordinating the implementation of the 2020 National Integrated Antimicrobial Resistance Surveillance Strategy (NIAMRSS). Although the strategy mentions surveillance of both water and soil sources in its 'Framework for surveillance of antibiotic resistance in environment' section, this is specific to antibiotic resistance. It also states that the Zambia Environmental Management Agency (ZEMA) which is "the key stakeholder for surveillance in environment, will need time and resources to build necessary capacity for antibiotic resistance surveillance in environmental samples". [1,2] Zambia's Multi-sectoral National Action Plan on Antimicrobial Resistance, 2017-2027, makes no mention of having conducted environmental detection or surveillance activities for antimicrobial residues or AMR organisms in soil or waterways. [3] There is no National Action Plan for Zambia in the World Health Organization (WHO) Library of national action plans. [4]

[1] The Zambia National Integrated Antimicrobial Resistance Surveillance Strategy (NIAMRSS). 2020. [<https://reliefweb.int/sites/reliefweb.int/files/resources/Integrated%20Antimicrobial%20Resistance%20Surveillance%20Framework%20-PRINT%20VERSION.pdf>]. Accessed 27 September 2020.

[2] Zambia Environmental Management Agency (ZEMA). [<http://www.zema.org.zm/>]. Accessed 24 October 2020.

[3] WHO Publications. 2017. 'Multi-sectoral National Action Plan on Antimicrobial Resistance 2017-2027'. [<https://afro.who.int/sites/default/files/2018-08/ZNPHI%20Document.pdf>]. Accessed 24 October 2020.

[4] World Health Organisation (WHO) Library of national action plans. [<http://www.who.int/antimicrobial-resistance/national-action-plans/library/en>]. Accessed 24 October 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: 0**

There is no evidence of national legislation or regulation in place requiring prescriptions specifically for antibiotic use for humans. No reference to such regulation could be found on the websites of the Ministry of Health or the Zambia Medicines Regulatory Authority (ZAMRA). [1,2] The Joint External Evaluation report of 2017 states that "Although there are several laws in operation such as the Public Health Act 1995 and the Food and Drug Act 2007, they do not effectively accommodate the requirement of the International Health Regulations (2005) (IHR) or the standards of the World Organisation for Animal Health (OIE)." There is no specific mention of antibiotic prescription in either of these laws. [3] Further comments on the ZAMRA website include "ZAMRA registers and regulates all medicines and allied substances for human and veterinary use in Zambia. It conducts routine post-marketing surveillance (PMS), pharmacovigilance and quality control testing activities on selected registered medicines, including antimicrobials. It also conducts enforcement activities to curb illegal distribution of registered and unregistered medicines." A survey among pharmacists showed that one of the main reasons "for dispensing antimicrobials without a prescription was to assist the patients who cannot afford a doctor's visit, even though a few indicated to make money or retain the customer." [2] The Multi-sectoral National Action Plan on Antimicrobial Resistance 2017-2027 refers to a situation analysis conducted in 2010-2011 which highlighted easy access to antibiotics without prescription. [4]

[1] Ministry of Health. [www.moh.gov.zm]. Accessed 5 October 2020.

[2] Zambia Medicines Regulatory Authority (ZAMRA). 'Medicines and Allied Substances Act No. 3 of 2013'. [http://www.zamra.co.zm/legislation/]. Accessed 5 October 2020.

[3] WHO. 2017. 'Joint External Evaluation of IHR Core capacities of the Republic of Zambia Mission report, 7-11 August 2017'. [http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2017.50/en/]. Accessed 5 October 2020.

[4] 2017 - 2027 Multisectoral National Action Plan on Antimicrobial Resistance, Zambia.

[https://afro.who.int/publications/multi-sectoral-national-action-plan-antimicrobial-resistance-2017-2027]. Accessed 5 October 2020.

### 1.1.2b

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

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

**Current Year Score: 0**

There is no publicly available evidence of national legislation or regulation in place requiring prescriptions specifically for antibiotic use for animals. No reference to such regulation could be found on the websites of the Ministries of Agriculture or Livestock and Fisheries. [1,2] The Joint External Evaluation (JEE) report for the Republic of Zambia, completed in August 2017, does not contain evidence of such legislation. [3] The Zambia Medicines Regulatory Authority (ZAMRA) states that "ZAMRA registers and regulates all medicines and allied substances for human and veterinary use in Zambia." but there is no specific mention of prescriptions for antibiotic use for animals. [4]

[1] Ministry of Agriculture. [www.agriculture.gov.zm]. Accessed 5 October 2020.

[2] Ministry of Livestock and Fisheries. [www.mlf.gov.zm]. Accessed 5 October 2020.

[3] WHO. 2017. 'Joint External Evaluation of IHR Core capacities of the Republic of Zambia Mission report, 7-11 August 2017'.

[<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2017.50/en/>]. Accessed 5 October 2020.

## 1.2 ZOO NOTIC 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: 0**

There is no publicly available evidence of a national law, plan, or equivalent strategy document, on zoonotic disease. No reference to these could be found on the websites of the Ministries of Health, Agriculture or Livestock and Fisheries, the Zambia National Public Health Institute (ZNPHI) or in the Public Health Act of 1995 [1,2,3,4,5] There is no OIE PVS (Performance of Veterinary Services) Evaluation or a Gap Analysis for Zambia. [6] The Multi-sectoral National Action Plan on Antimicrobial Resistance 2017-2027 does state that the "Veterinary Public Health unit operates under the veterinary services section and is responsible for food safety and zoonotic disease control" but there is no mention of a plan or strategy for zoonoses. [7] Similarly the 2020 Zambia National Integrated Antimicrobial Resistance Surveillance Strategy (NIAMRSS) makes no mention of a plan or strategy for zoonoses. [8] The Joint External Evaluation (JEE) report for the Republic of Zambia, completed in August 2017, states that surveillance of zoonotic diseases is weak due to underreporting and inadequate laboratory capacity, especially in the animal sector. Although the JEE Tool (2005) scores 3 for Zambia's "Surveillance systems in place for priority zoonotic diseases/pathogens", which indicates that there are "zoonotic surveillance systems in place for 1-4 zoonotic diseases/ pathogens of greatest public health concern", again, there is no mention of a plan or strategy for zoonoses. The report recommends that Zambia creates plans and strategies for the control and prevention of zoonotic diseases, including a priority zoonotic disease list. [9,10] Similar recommendations are made in the Zambia National Health Strategic Plan 2017-2021. [11]

[1] Ministry of Health. 2018. [[www.moh.gov.zm](http://www.moh.gov.zm)]. Accessed 27 September 2020.

[2] Ministry of Agriculture. 2018. [[www.agriculture.gov.zm](http://www.agriculture.gov.zm)]. Accessed 27 September 2020.

[3] Ministry of Livestock and Fisheries. 2018. [[www.mlf.gov.zm](http://www.mlf.gov.zm)]. Accessed 27 September 2020.

[4] Zambia National Public Health Institute (ZNPHI). 2018. Surveillance and Disease Intelligence. [<http://znphi.co.zm/surveillance-and-disease-intelligence.html>]. Accessed 27 September 2020.

[5] Public Health Act 1995. [<http://www.parliament.gov.zm/sites/default/files/documents/acts/Public%20Health%20Act.pdf>]. Accessed 27 September 2020.

[6] World organization for animal health (OIE). 2020. PVS Gap Analysis reports. [<http://www.oie.int/support-to-oie-members/pvs-gap-analysis/pvs-gap-analysis-reports/>]. Accessed 27 September 2020.

[7] FWHO Publications. 2017. 'Multi-sectoral National Action Plan on Antimicrobial Resistance 2017-2027'. [<https://afro.who.int/sites/default/files/2018-08/ZNPHI%20Document.pdf>]. Accessed 27 September 2020.

[8] The Zambia National Integrated Antimicrobial Resistance Surveillance Strategy (NIAMRSS). 2020. [<https://reliefweb.int/sites/reliefweb.int/files/resources/Integrated%20Antimicrobial%20Resistance%20Surveillance%20Framework%20-PRINT%20VERSION.pdf>].

[9] Joint External Evaluation Tool. 2005.

[[https://apps.who.int/iris/bitstream/handle/10665/204368/9789241510172\\_eng.pdf;jsessionid=E14208A54EA88B00B62E98EB72C0FE5B?sequence=1](https://apps.who.int/iris/bitstream/handle/10665/204368/9789241510172_eng.pdf;jsessionid=E14208A54EA88B00B62E98EB72C0FE5B?sequence=1)]. Accessed 27 September 2020.

[10] WHO. 2017. 'Joint External Evaluation of IHR Core capacities of the Republic of Zambia Mission report, 7-11 August 2017'. [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2017.50/en/>]. Accessed 27 September 2020.

[11] Zambia National Health Strategic Plan 2017-2021. [<https://www.medbox.org/countries/zambia-national-health-strategic-plan-2017-2021/preview>]. Accessed 27 September 2020.

### 1.2.1b

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

Yes = 1 , No = 0

**Current Year Score: 0**

There is no publicly available evidence of national legislation, plans or equivalent strategy document(s) which include measures for risk identification and reduction for zoonotic disease spill-over events from animals to humans.

The Joint External Evaluation report of 2017 states that "Although there are several laws in operation such as the Public Health Act 1995 and the Food and Drug Act 2007, they do not effectively accommodate the requirement of the International Health Regulations (2005) (IHR) or the standards of the World Organisation for Animal Health (OIE)." There is no specific mention of zoonotic disease spill-over events in either of these laws. [1] No further details could be found in any of the websites of; the Ministries of Health or Agriculture, the Zambia National Integrated Antimicrobial Resistance Surveillance Strategy (NIAMRSS) (2020), the Multi-sectoral National Action Plan on Antimicrobial Resistance 2017-2027, the National Health Strategic Plan 2017-2021, the Public Health Act of 1995 or the Disaster Management Act of 2010. [2,3,4,5,6,7,8]

[1] World Health Organization (WHO). 2017. 'Joint External Evaluation of IHR Core capacities of the Republic of Zambia Mission report, 7-11 August 2017'. [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2017.50/en/>]. Accessed 24 October 2020.

[2] Ministry of Health. [[www.moh.gov.zm](http://www.moh.gov.zm)]. Accessed 24 October 2020.

[3] Ministry of Agriculture [[www.agriculture.gov.zm](http://www.agriculture.gov.zm)]. Accessed 24 October 2020.

[4] The Zambia National Integrated Antimicrobial Resistance Surveillance Strategy (NIAMRSS). 2020.

[<https://reliefweb.int/sites/reliefweb.int/files/resources/Integrated%20Antimicrobial%20Resistance%20Surveillance%20Framework%20-PRINT%20VERSION.pdf>]. Accessed 27 September 2020.

[5] WHO Publications. 2017. 'Multi-sectoral National Action Plan on Antimicrobial Resistance 2017-2027'.

[<https://afro.who.int/sites/default/files/2018-08/ZNPHI%20Document.pdf>]. Accessed 27 September 2020.

[6] Zambia National Health Strategic Plan 2017-2021. [<https://www.medbox.org/countries/zambia-national-health-strategic-plan-2017-2021/preview>]. Accessed 27 September 2020.

[7] Public Health Act 1995. [[http://www.vertic.org/media/National%20Legislation/Zambia/ZM\\_Public\\_Health\\_Act.pdf](http://www.vertic.org/media/National%20Legislation/Zambia/ZM_Public_Health_Act.pdf)]. Accessed 27 September 2020.

[8] Disaster Management Act 13 of 2010. [[https://www.preventionweb.net/files/17032\\_17032disastermgtact1.PDF](https://www.preventionweb.net/files/17032_17032disastermgtact1.PDF)]. Accessed 27 September 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: 0**

There is no publicly available evidence of existing national plans, guidelines or laws that account for the surveillance and control of multiple zoonotic pathogens of public health concern. The 2020 Zambia National Integrated Antimicrobial

Resistance Surveillance Strategy (NIAMRSS) includes Salmonella spp., Escherichia coli and Staphylococcus aureus in their surveillance strategy, but it does not include control measures. [1] The 2017 Joint External Evaluation (JEE) report states that Zambia has indicator-based surveillance systems in the animal health sector and public health sector but does not indicate which diseases are monitored or if there is a surveillance plan. There is an epidemic and response committee, the National Epidemic Preparedness, Prevention, Control and Management Committees (NEPPC&MC), and the Zambia National Public Health Institute (ZNPHI), both of which are tasked with disease surveillance and control. However, there is no information on which diseases are planned for. Furthermore, the report notes that zoonotic disease surveillance is performing sub-optimally and there is immediate need to identify gaps and weaknesses in the zoonotic disease surveillance system. [2] No reference to these could be found on the websites of the Ministries of Health, Agriculture or Livestock and Fisheries. [3,4,5] There is no OIE PVS (Performance of Veterinary Services) Evaluation or a Gap Analysis for Zambia. [6]

[1] The Zambia National Integrated Antimicrobial Resistance Surveillance Strategy (NIAMRSS). 2020.

[https://reliefweb.int/sites/reliefweb.int/files/resources/Integrated%20Antimicrobial%20Resistance%20Surveillance%20Framework%20-PRINT%20VERSION.pdf]. Accessed 28 September 2020.

[2] WHO. 2017. 'Joint External Evaluation of IHR Core capacities of the Republic of Zambia Mission report, 7-11 August 2017'. [http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2017.50/en/]. Accessed 28 September 2020.

[3] Ministry of Health. 2018. [www.moh.gov.zm]. Accessed 28 September 2020.

[4] Ministry of Agriculture. 2018. [www.agriculture.gov.zm]. Accessed 28 September 2020.

[5] Ministry of Livestock and Fisheries. 2018. [www.mlf.gov.zm]. Accessed 28 September 2020.

[6] World organization for animal health (OIE). 2020. PVS Gap Analysis reports. [http://www.oie.int/support-to-oie-members/pvs-gap-analysis/pvs-gap-analysis-reports/]. Accessed 27 September 2020.

### 1.2.1d

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

Yes = 1 , No = 0

**Current Year Score: 0**

There is insufficient publicly available evidence of a department, agency or similar unit dedicated to zoonotic disease that functions across ministries. The Ministry of Health website states that the government "shall implement the Zambia COVID-19 Emergency Response and Health Systems Preparedness Project (the Project), with the involvement of the Ministry of Health (MoH) and the Zambia National Public Health Institute" but there is no evidence of this action being across ministries, and it is event and disease specific. [1] In an April 2020 article by Effective States and Inclusive Development (ESID) it states that Zambia's response to the COVID-19 pandemic is being "led by the Ministry of Health, advised by experts from the World Health Organisation (WHO) and Centers for Disease Control and Prevention (CDC), with daily briefings to the public and frequent updates through social media, including Facebook and Twitter." There is no mention of a unit dedicated to zoonotic disease. [2] The Joint External Evaluation (JEE) report for the Republic of Zambia, completed in August 2017 , noted that the absence of linkages (between other stake holders and Ministries) created missed opportunities for joint working and systems that would assist in bringing about a One Health approach. It also notes that while the National Epidemic Preparedness, Prevention, Control and Management Committees (NEPPC&MC ) is in place, it does not serve as the formal mechanism for IHR coordination, communication and advocacy with consistent participation of all relevant ministries. [3] No information on such a unit could be found on the websites of the Ministries of Agriculture or Livestock and Fisheries , or the Zambia National Public Health Institute (ZNPHI) or in the Public Health Act of 1995 [4,5,6,7] There is no OIE PVS (Performance of Veterinary Services) Evaluation or a Gap Analysis for Zambia. [8]

[1] Ministry of Health. May 2020. [https://www.moh.gov.zm/?wpfb\_dl=148]. Accessed 28 September 2020.

[2] Effective States and Inclusive Development (ESID). 28 April 2020. [http://www.effective-states.org/zambias-response-to-



covid-19/]. Accessed 28 September 2020.

[3] WHO. 2017. 'Joint External Evaluation of IHR Core capacities of the Republic of Zambia Mission report, 7-11 August 2017'. [http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2017.50/en/]. Accessed 28 September 2020.

[4] Ministry of Agriculture. 2018. [www.agriculture.gov.zm]. Accessed 28 September 2020.

[5] Ministry of Livestock and Fisheries. 2018. [www.mlf.gov.zm]. Accessed 28 September 2020.

[6] Zambia National Public Health Institute (ZNPHI).2018. Surveillance and Disease Intelligence. [http://znphi.co.zm/surveillance-and-disease-intelligence.html]. Accessed 28 September 2020.

[7] Public Health Act 1995. [http://www.parliament.gov.zm/sites/default/files/documents/acts/Public%20Health%20Act.pdf]. Accessed 28 September 2020.

[8] World organization for animal health (OIE). 2020. PVS Gap Analysis reports. [http://www.oie.int/support-to-oie-members/pvs-gap-analysis/pvs-gap-analysis-reports/]. Accessed 27 September 2020.

## 1.2.2 Surveillance systems for zoonotic diseases/pathogens

### 1.2.2a

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

Yes = 1 , No = 0

**Current Year Score: 0**

There is no publicly available evidence that Zambia has a national mechanism (either voluntary or mandatory) specifically for owners of livestock to conduct and report on disease surveillance to a central government agency. No information on such a mechanism could be found on the websites of the Ministries of Health, Agriculture or Livestock and Fisheries. [1,2,3] The Joint External Evaluation (JEE) report for the Republic of Zambia, completed in August 2017, does not contain evidence of such a mechanism. [4] There is no OIE PVS (Performance of Veterinary Services) Evaluation or a Gap Analysis for Zambia. [5] No further information could be found in media sources. The Multi-sectoral National Action Plan on Antimicrobial Resistance 2017-2027 only states that "the district veterinary office is the interface between the livestock farmers, agencies, and the private sector." The district veterinary offices fall under the Department of Veterinary Services (DVS), which in turn falls under the Ministry of Livestock and Fisheries. [6]

[1] Ministry of Health. [www.moh.gov.zm]. Accessed 28 September 2020.

[2] Ministry of Agriculture. [www.agriculture.gov.zm]. Accessed 28 September 2020.

[3] Ministry of Livestock and Fisheries. [www.mlf.gov.zm]. Accessed 28 September 2020.

[4] World Health Organisation (WHO). 2017. 'Joint External Evaluation of IHR Core capacities of the Republic of Zambia Mission report, 7-11 August 2017'. [http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2017.50/en/]. Accessed 28 September 2020.

[5] World organization for animal health (OIE). 2020. PVS Gap Analysis reports. [http://www.oie.int/support-to-oie-members/pvs-gap-analysis/pvs-gap-analysis-reports/]. Accessed 27 September 2020.

[6] WHO Publications. 2017. 'Multi-sectoral National Action Plan on Antimicrobial Resistance 2017-2027'. [https://afro.who.int/sites/default/files/2018-08/ZNPHI%20Document.pdf]. Accessed 28 September 2020.

### 1.2.2b

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

Yes = 1 , No = 0

**Current Year Score: 0**

There is no publicly available evidence of laws or guidelines that safeguard the confidentiality of information generated specifically through surveillance activities for animals (for owners). Zambia has enacted data protection and privacy laws and, as an African Union member, became a signatory to the progressive Convention on Cyber Security and Personal Data protection in 2014. However, the Electronic Communications and Transactions (ECT) Act No 21 of 2009, which has quite comprehensive confidentiality clauses, does not contain any that refer to, or implicitly include, surveillance of owned livestock. [1,2] The Data Protection Bill 2018 is currently with the Ministry of Justice and has not yet been presented before Parliament. [3] The aim of the Bill is to repeal and replace the ECT Act. The Bill does not, however, contain any additional clauses for surveillance of owned livestock. [4] No evidence could be found on the websites of the Ministries of Health, Agriculture or Livestock and Fisheries or the International Comparative Legal Guides. [5,6,7,8] The Joint External Evaluation (JEE) report for the Republic of Zambia, completed in August 2017, does not contain evidence of such laws or guidelines. [9]

[1] Consumer International. 2018. 'The state of data protection rules around the world'.

[<https://www.consumersinternational.org/media/155133/gdpr-briefing.pdf>]. Accessed 28 September 2020.

[2] United Nations Office on Drugs and Crime (UNODOC).

[[https://sherloc.unodc.org/cld/document/zmb/2009/electronic\\_communications\\_and\\_transactions\\_act.html](https://sherloc.unodc.org/cld/document/zmb/2009/electronic_communications_and_transactions_act.html)]. Accessed 28 September 2020.

[3] OneTrust DataGuidance. 21 February 2020. "Zambia: Data protection bill being considered by Ministry of Justice".

[<https://www.dataguidance.com/news/zambia-data-protection-bill-being-considered-ministry-justice>]. 28 September 2020.

[4] Zambia Daily Mail Ltd. 9 June 2018. 'Data Protection Bill ready for enactment' [<http://www.daily-mail.co.zm/data-protection-bill-ready-for-enactment/>]. Accessed 28 September 2020.

[5] Ministry of Health. [[www.moh.gov.zm](http://www.moh.gov.zm)]. Accessed 28 September 2020.

[6] Ministry of Agriculture. [[www.agriculture.gov.zm](http://www.agriculture.gov.zm)]. Accessed 28 September 2020.

[7] Ministry of Livestock and Fisheries. [[www.mlf.gov.zm](http://www.mlf.gov.zm)]. Accessed 28 September 2020.

[7] International Comparative Legal Guides. [<https://iclg.com/practice-areas/data-protection-laws-and-regulations/zambia>]. Accessed 28 September 2020.

[8] World Health Organisation (WHO). 2017. 'Joint External Evaluation of IHR Core capacities of the Republic of Zambia Mission report, 7-11 August 2017'. [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2017.50/en/>]. Accessed 28 September 2020.

### 1.2.2c

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

Yes = 1 , No = 0

**Current Year Score: 0**

There is no publicly available evidence that Zambia conducts surveillance of zoonotic disease in wildlife (e.g. wild animals, insects, other disease vectors). No information on wildlife surveillance could be found on the websites of the Ministries of Health, Agriculture, Livestock and Fisheries or Tourism and Arts, under which the Department of National Parks and Wildlife falls. [1,2,3,4] Neither the Joint External Evaluation (JEE) report for the Republic of Zambia, completed in August 2017, or the Multi-sectoral National Action Plan on Antimicrobial Resistance 2017-2027 contain evidence of such surveillance. [5,6] There is no OIE PVS (Performance of Veterinary Services) Evaluation or a Gap Analysis for Zambia. [7] No further information could be found in media sources.

[1] Ministry of Health. 2018. [[www.moh.gov.zm](http://www.moh.gov.zm)]. Accessed 28 September 2020.

[2] Ministry of Agriculture. 2018. [[www.agriculture.gov.zm](http://www.agriculture.gov.zm)]. Accessed 28 September 2020.

- [3] Ministry of Livestock and Fisheries. 2018. [www.mlf.gov.zm]. Accessed 28 September 2020.
- [4] Ministry of Tourism and Arts. [https://www.mota.gov.zm/]. Accessed 28 September 2020.
- [5] WHO. 2017. 'Joint External Evaluation of IHR Core capacities of the Republic of Zambia Mission report, 7-11 August 2017'. [http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2017.50/en/]. Accessed 28 September 2020.
- [6] WHO Publications. 2017. 'Multi-sectoral National Action Plan on Antimicrobial Resistance 2017-2027'. [https://afro.who.int/sites/default/files/2018-08/ZNPHI%20Document.pdf]. Accessed 28 September 2020.
- [7] World organization for animal health (OIE). 2020. PVS Gap Analysis reports. [http://www.oie.int/support-to-oie-members/pvs-gap-analysis/pvs-gap-analysis-reports/]. Accessed 27 September 2020.

### 1.2.3 International reporting of animal disease outbreaks

#### 1.2.3a

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

Yes = 1 , No = 0

Current Year Score: 0

2019

OIE WAHIS database

### 1.2.4 Animal health workforce

#### 1.2.4a

Number of veterinarians per 100,000 people

Input number

Current Year Score: -

No data available

OIE WAHIS database

#### 1.2.4b

Number of veterinary para-professionals per 100,000 people

Input number

Current Year Score: -

No data available

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**

There is no publicly available evidence that Zambia has a national plan on zoonotic disease or other legislation, regulation or plan including mechanisms for working with the private sector in controlling or responding to zoonoses. No evidence could be found on the websites of the Ministries of Health, Agriculture, Livestock and Fisheries or the University Teaching Hospital. [1, 2,3,4] No further information was found in media sources. Although the 2017 Joint External Evaluation (JEE) report states that Zambia operates a three-tier National Medical Laboratory System in which private institutions are included, it also mentions, as areas that need strengthening, "A One Health approach in the testing of diseases and their surveillance that will incorporate private laboratories." and "The non-utilization of private laboratories in Integrated Disease Surveillance and Response (IDSR)." [5] The Multi-sectoral National Action Plan on Antimicrobial Resistance 2017-2027 says that the Department of Veterinary Services (DVS) is mandated to work with other departments, agencies and the private sector in provision of animal health services at national, provincial, district and camp levels, but there is nothing specific on controlling or responding to zoonoses . Other statements include "The district veterinary office is the interface between the livestock farmers, agencies, and the private sector." and "The Central Veterinary Research Institute (CVRI), the School of Veterinary Medicine of the University of Zambia (UNZA) and some private laboratories carry out laboratory diagnostics for livestock and wildlife diseases." [6] There is no other evidence of private sector collusion in responding to and controlling zoonoses. The World Bank provided U\$6 million of funding in June 2016 for the implementation of the Africa Centre of Excellence in Emerging and Zoonotic Diseases (ACEEZD) by the University of Zambia (UNZA) School of Veterinary Medicine. [7] The National Laboratory system has no online presence.

[1] Ministry of Health. 2018. [www.moh.gov.zm]. Accessed 28 September 2020.

[2] Ministry of Agriculture. 2018. [www.agriculture.gov.zm]. Accessed 28 September 2020.

[3] Ministry of Livestock and Fisheries. 2018. [www.mlf.gov.zm]. Accessed 28 September 2020.

[4] University Teaching Hospital. [http://www.uth.gov.zm/]. Accessed 28 September 2020.

[5] WHO. 2017. 'Joint External Evaluation of IHR Core capacities of the Republic of Zambia Mission report, 7-11 August 2017'. [http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2017.50/en/]. Accessed 28 September 2020.

[6] WHO Publications. 2017. 'Multi-sectoral National Action Plan on Antimicrobial Resistance 2017-2027'.

[https://afro.who.int/sites/default/files/2018-08/ZNPHI%20Document.pdf]. Accessed 28 September 2020.

[7] World Bank. June 2016. 'World Bank approves U\$6million to UNZA vet dept. for ACEEZD'.

[https://www.lusakatimes.com/2016/06/15/world-bank-approves-u6million-unza-vet-dept-aceezd/]. Accessed 28 September 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 publicly available evidence that Zambia has a record in place, 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. No evidence could be found on the websites of the Ministries of Health, Agriculture, Livestock and Fisheries or Defence or the University Teaching Hospital, the National Health Research Authority (NHRA) or in the VERTIC legislation database. [1,2,3,4,5,6,7] Neither was there any information on storage or inventories of dangerous pathogens in the Joint External Evaluation (JEE) report for the Republic of Zambia, completed in August 2017, or in the National Action Plan. [8,9] Although Zambia is party to the BWC, there is no public evidence that it has submitted Confidence-Building Measures reports. [10] No further information was found in media sources. The National Laboratory system has no online presence.

[1] Ministry of Health. [www.moh.gov.zm]. Accessed 28 September 2020.

[2] Ministry of Agriculture. [www.agriculture.gov.zm]. Accessed 28 September 2020.

[3] Ministry of Livestock and Fisheries. [www.mlf.gov.zm]. Accessed 28 September 2020.

[4] Ministry of Defence. [www.mod.gov.zm]. Accessed 28 September 2020.

[5] University Teaching Hospital. Laboratory Department. [http://www.uth.gov.zm/?page\_id=882]. Accessed 28 September 2020.

[6] The National Health Research Authority. [https://www.nhra.org.zm/]. Accessed 28 September 2020.

[7] VERTIC. [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/z/]. Accessed 23 October 2020.

[8] WHO. 2017. 'Joint External Evaluation of IHR Core capacities of the Republic of Zambia Mission report, 7-11 August 2017'. [http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2017.50/en/]. Accessed 28 September 2020.

[9] WHO Publications. 2017. 'Multi-sectoral National Action Plan on Antimicrobial Resistance 2017-2027'. [https://afro.who.int/sites/default/files/2018-08/ZNPHI%20Document.pdf]. Accessed 28 September 2020.

[10] The United Nations Office at Geneva (UNOG). 2018. 'Biological weapons convention implementation support unit'. [https://bwc-ecbm.unog.ch/state/zambia]. Accessed 28 September 2020.

### 1.3.1b

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

Yes = 1 , No = 0

**Current Year Score: 0**

There is no publicly available evidence that Zambia has legislation and/or regulations in place 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. No evidence could be found on the websites of the Ministries of Health, Agriculture, Livestock and Fisheries or Defence or the University Teaching Hospital or the National Health Research Authority (NHRA). [1,2,3,4,5,6] Neither was there any information on biosecurity for dangerous pathogens in the Multi-sectoral National Action Plan on Antimicrobial Resistance 2017-2027, or in the VERTIC legislation database, or in any of the Acts for Public Health 1995, Animal Health 2010 or Environmental Management 2011. [7,8,9,10,11] No further information was found in media sources. The Joint External Evaluation (JEE) report for the Republic of Zambia, completed in August 2017, states that Zambia has a Biosafety Act, which was enacted in 2007. This Act, however, is virtually exclusively about Genetically Modified Organisms (GMOs), referring solely to crops. The report also states that "Other

legislations such as Animal Health Act, Public Health Act, and Environmental Management Act include biosafety issues, but biosecurity issues are not fully covered." Zambia has BSL-3 national reference laboratories at University of Zambia (UNZA), University Teaching Hospital (UTH) and Central Veterinary Research Institute. At all of these institutions a biosafety and biosecurity system is being implemented, which includes the containment of dangerous pathogens according to best practices. However, the system is still implemented in a fragmented way without much coordination and collaboration between different sectors. [12] Although Zambia is party to the BWC, there is no public evidence that it has submitted Confidence-Building Measures reports. [13]

- [1] Ministry of Health. [www.moh.gov.zm]. Accessed 28 September 2020.  
 [2] Ministry of Agriculture. [www.agriculture.gov.zm]. Accessed 28 September 2020.  
 [3] Ministry of Livestock and Fisheries. [www.mlf.gov.zm]. Accessed 28 September 2020.  
 [4] Ministry of Defence. [www.mod.gov.zm]. Accessed 28 September 2020.  
 [5] University Teaching Hospital. [http://www.uth.gov.zm/]. Accessed 28 September 2020.  
 [6] The National Health Research Authority. [https://www.nhra.org.zm/]. Accessed 28 September 2020.  
 [7] WHO Publications. 2017. 'Multi-sectoral National Action Plan on Antimicrobial Resistance 2017-2027'. [https://afro.who.int/sites/default/files/2018-08/ZNPHI%20Document.pdf]. Accessed 28 September 2020.  
 [8] VERTIC. [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/z/]. Accessed 28 September 2020.  
 [9] Public Health Act 1995. [http://www.vertic.org/media/National%20Legislation/Zambia/ZM\_Public\_Health\_Act.pdf]. 28 September 2020.  
 [10] Animal Health Act 2010. [http://extwprlegs1.fao.org/docs/pdf/zam102118.pdf]. 28 September 2020.  
 [11] Environmental Management Act 2011. [https://www.informe.org/sites/default/files/legislation/zambia-environmental-management-act-2011\_0.pdf]. Accessed 28 September 2020.  
 [12] WHO. 2017. 'Joint External Evaluation of IHR Core capacities of the Republic of Zambia Mission report, 7-11 August 2017'. [http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2017.50/en/]. Accessed 28 September 2020.  
 [13] The United Nations Office at Geneva (UNOG). 2018. 'Biological weapons convention implementation support unit'. [https://bwc-ecbm.unog.ch/state/zambia]. Accessed 28 September 2020.

### 1.3.1c

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

Yes = 1, No = 0

**Current Year Score: 0**

There is no publicly available evidence that there is an established agency (or agencies) responsible for the enforcement of biosecurity legislation and regulations. Zambia does not have legislation and/or regulations in place related to biosecurity. No evidence could be found on the websites of the Ministries of Health, Agriculture, Livestock and Fisheries or Defence or the University Teaching Hospital, the National Health Research Authority (NHRA) or in the VERTIC legislation database.

[1,2,3,4,5,6,7] Neither was there any information on such agencies in the National Action Plan. [8] No further information was found in media sources. The Joint External Evaluation (JEE) report for the Republic of Zambia, completed in August 2017, states that biosecurity issues are not fully covered in any of the relevant Zambian legislation. [9] Although Zambia is party to the BWC, there is no public evidence that it has submitted Confidence-Building Measures reports. [10]

- [1] Ministry of Health. [www.moh.gov.zm]. Accessed 28 September 2020.  
 [2] Ministry of Agriculture. [www.agriculture.gov.zm]. Accessed 28 September 2020.  
 [3] Ministry of Livestock and Fisheries. [www.mlf.gov.zm]. Accessed 28 September 2020.  
 [4] Ministry of Defence. [www.mod.gov.zm]. Accessed 28 September 2020.

- [5] University Teaching Hospital. [<http://www.uth.gov.zm/>]. Accessed 28 September 2020.
- [6] The National Health Research Authority. [<https://www.nhra.org.zm/>]. Accessed 28 September 2020.
- [7] VERTIC. [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/z/>]. Accessed 23 October 2020.
- [8] WHO Publications. 2017. 'Multi-sectoral National Action Plan on Antimicrobial Resistance 2017-2027'. [<https://afro.who.int/sites/default/files/2018-08/ZNPHI%20Document.pdf>]. Accessed 28 September 2020.
- [9] World Health Organisation (WHO). 2017. 'Joint External Evaluation of IHR Core capacities of the Republic of Zambia Mission report, 7-11 August 2017'. [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2017.50/en/>]. Accessed 28 September 2020.
- [10] The United Nations Office at Geneva (UNOG). 2018. 'Biological weapons convention implementation support unit'. [<https://bwc-ecbm.unog.ch/state/zambia>]. Accessed 28 September 2020.

### 1.3.1d

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

Yes = 1 , No = 0

**Current Year Score: 0**

There is no public evidence that shows that Zambia has taken action to consolidate its inventories of especially dangerous pathogens and toxins into a minimum number of facilities. No evidence could be found on the websites of the Ministries of Health, Agriculture, Livestock and Fisheries or Defence or the University Teaching Hospital or the National Health Research Authority (NHRA) or in the VERTIC legislation database. [1,2,3,4,5,6,7] Neither was there any information in the National Action Plan, the Joint External Evaluation (JEE) report for the Republic of Zambia, completed in August 2017 or in the Academy of Science of South Africa (ASSAf) report of 20 March 2018 on "The State of Laboratory Biosafety and Biosecurity in the Southern African Development Community (SADC) region". [8,9,10] No further information was found in media sources. Although Zambia is party to the BWC, there is no public evidence that it has submitted Confidence-Building Measures reports. [11]

- [1] Ministry of Health. 2018. [[www.moh.gov.zm](http://www.moh.gov.zm/)]. Accessed 28 September 2020.
- [2] Ministry of Agriculture. 2018. [[www.agriculture.gov.zm](http://www.agriculture.gov.zm/)]. Accessed 28 September 2020.
- [3] Ministry of Livestock and Fisheries. 2018. [[www.mlf.gov.zm](http://www.mlf.gov.zm/)]. Accessed 28 September 2020.
- [4] Ministry of Defence. [[www.mod.gov.zm](http://www.mod.gov.zm/)]. Accessed 28 September 2020.
- [5] University Teaching Hospital. [<http://www.uth.gov.zm/>]. Accessed 28 September 2020.
- [6] The National Health Research Authority. [<https://www.nhra.org.zm/>]. Accessed 28 September 2020.
- [7] VERTIC. [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/z/>]. Accessed 23 October 2020.
- [8] WHO Publications. 2017. 'Multi-sectoral National Action Plan on Antimicrobial Resistance 2017-2027'. [<https://afro.who.int/sites/default/files/2018-08/ZNPHI%20Document.pdf>]. Accessed 28 September 2020.
- [9] WHO. 2017. 'Joint External Evaluation of IHR Core capacities of the Republic of Zambia Mission report, 7-11 August 2017'. [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2017.50/en/>]. Accessed 28 September 2020.
- [10] Academy of Science of South Africa (ASSAf). 20 March 2018. "The State of Laboratory Biosafety and Biosecurity in the Southern African Development Community (SADC) region". [[https://www.nepadsanbio.org/sites/default/files/2018-08/2018\\_assaf\\_State%20of%20Laboratory%20Biosafety%20%20Biosecurity%20in%20the%20SADC%20Region%20-%20Proceedings%20Report.pdf](https://www.nepadsanbio.org/sites/default/files/2018-08/2018_assaf_State%20of%20Laboratory%20Biosafety%20%20Biosecurity%20in%20the%20SADC%20Region%20-%20Proceedings%20Report.pdf)]. Accessed 28 September 2020.
- [11] The United Nations Office at Geneva (UNOG). 2018. 'Biological weapons convention implementation support unit'.

[<https://bwc-ecbm.unog.ch/state/zambia>]. Accessed 28 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: 0**

There is insufficient 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. Although the World Health Organisation (WHO) report "Regional Ebola Preparedness: Overview of Needs and Requirements" dated July 2019, states that Zambia has "PCR and GeneXpert capacity in place", it is not made clear that this capacity can be used for Ebola. [1] CIDRZ laboratory is the primary laboratory for most of Lusaka province and it serves as a reference laboratory for molecular diagnosis [HIV, DNA, PCR and viral load testing] but there is no mention if the PCR testing is for Ebola and/or Anthrax. [2] No further evidence could be found on the websites of the Ministries of Health, Agriculture, Livestock and Fisheries or Defence or the University Teaching Hospital or the National Health Research Authority (NHRA). [3,4,5,6,7,8] Neither was there any information in the National Action Plan or the Joint External Evaluation report of 2017. [9,10] There are references in the media to Zambia's ability to conduct PCR diagnoses, but these are all HIV specific.

[1] World Health Organisation (WHO). July 2019. "Regional Ebola Preparedness: Overview of Needs and Requirements July - December 2019." [<https://www.who.int/csr/resources/publications/ebola/regional-preparedness-overview-june-dec-2019.pdf?ua=1>]. Accessed 28 September 2020.

[2] The Centre for Infectious Disease Research in Zambia (CIDRZ). June 2018. [<http://www.cidrz.org/laboratory/>]. Accessed 23 October 2020.

[3] Ministry of Health. [[www.moh.gov.zm](http://www.moh.gov.zm)]. Accessed 23 October 2020.

[4] Ministry of Agriculture. [[www.agriculture.gov.zm](http://www.agriculture.gov.zm)]. Accessed 23 October 2020.

[5] Ministry of Livestock and Fisheries. [[www.mlf.gov.zm](http://www.mlf.gov.zm)]. Accessed 23 October 2020.

[6] Ministry of Defence. [[www.mod.gov.zm](http://www.mod.gov.zm)]. Accessed 23 October 2020.

[7] University Teaching Hospital. [<http://www.uth.gov.zm/>]. Accessed 23 October 2020.

[8] The National Health Research Authority. [<https://www.nhra.org.zm/>]. Accessed 23 October 2020.

[9] WHO Publications. 2017. 'Multi-sectoral National Action Plan on Antimicrobial Resistance 2017-2027'. [<https://afro.who.int/sites/default/files/2018-08/ZNPHI%20Document.pdf>]. Accessed 23 October 2020.

[10] WHO. 2017. 'Joint External Evaluation of IHR Core capacities of the Republic of Zambia Mission report, 7-11 August 2017'. [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2017.50/en/>]. Accessed 23 October 2020.

## 1.3.2 Biosecurity training and practices

### 1.3.2a

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

Yes = 1 , No = 0

**Current Year Score: 0**



There is no publicly available evidence that Zambia requires biosecurity training, using a standardized, required approach, such as through a common curriculum or a train-the-trainer program, for personnel working in facilities housing or working with especially dangerous pathogens, toxins, or biological materials with pandemic potential. No evidence could be found on the websites of the Ministries of Health, Agriculture, Livestock and Fisheries or Defence or of the University Teaching Hospital, the National Health Research Authority (NHRA), the Zambia National Public Health Institute (ZNPHI) or in the VERTIC legislation database. [1,2,3,4,5,6,7,8]. There is no mention of biosecurity specific training in the National Action Plan. No further information was found in media sources. [9] The Joint External Evaluation (JEE) report for the Republic of Zambia, completed in August 2017 states that "Biosafety and biosecurity training is being conducted in all national reference laboratories. All new staff are trained in biosafety and biosecurity. Good practices have also been established with adequate SOPs and guidelines." It also states, however, that a comprehensive training needs assessment to identify training gaps has not been conducted, that training is provided without a common curriculum, there is no train-the-trainer program and that there is little academic training in institutions that train those who handle dangerous pathogens. [10] A World Bank project information document, dated October 2019, states that Zambia has various Acts which include biosafety issues, but biosecurity issues are not fully covered. Also "Biosafety and biosecurity training is being conducted in all national reference laboratories, including training of all new staff, however a comprehensive training needs assessment is needed to identify training gaps." [11] Although Zambia is party to the BWC, there is no public evidence that it has submitted Confidence-Building Measures reports. [12]

- [1] Ministry of Health. [[www.moh.gov.zm](http://www.moh.gov.zm)]. Accessed 28 September 2020.
- [2] Ministry of Agriculture. [[www.agriculture.gov.zm](http://www.agriculture.gov.zm)]. Accessed 28 September 2020.
- [3] Ministry of Livestock and Fisheries. [[www.mlf.gov.zm](http://www.mlf.gov.zm)]. Accessed 28 September 2020.
- [4] Ministry of Defence. [[www.mod.gov.zm](http://www.mod.gov.zm)]. Accessed 28 September 2020.
- [5] University Teaching Hospital. [<http://www.uth.gov.zm/>]. Accessed 28 September 2020.
- [6] The National Health Research Authority. [<https://www.nhra.org.zm/>]. Accessed 28 September 2020.
- [7] Zambia National Public Health Institute (ZNPHI). Surveillance and Disease Intelligence. [<http://znphi.co.zm/surveillance-and-disease-intelligence.html>]. Accessed 28 September 2020.
- [8] VERTIC. [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/z/>]. Accessed 23 October 2020.
- [9] WHO Publications. 2017. 'Multi-sectoral National Action Plan on Antimicrobial Resistance 2017-2027'. [<https://afro.who.int/sites/default/files/2018-08/ZNPHI%20Document.pdf>]. Accessed 28 September 2020.
- [10] WHO. 2017. 'Joint External Evaluation of IHR Core capacities of the Republic of Zambia Mission report, 7-11 August 2017'. [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2017.50/en/>]. Accessed 28 September 2020.
- [11] The World Bank Africa CDC Regional Investment Financing Program. 7 October 2019. Combined Project Information Documents/ Integrated Safeguards Datasheet (PID/ISDS). [<http://documents1.worldbank.org/curated/pt/443771570500044727/pdf/Project-Information-Document-Integrated-Safeguards-Data-Sheet-Africa-CDC-Regional-Investment-Financing-Project-P167916.pdf>]. Accessed 28 September 2020.
- [12] The United Nations Office at Geneva (UNOG). 2018. 'Biological weapons convention implementation support unit'. [<https://bwc-ecbm.unog.ch/state/zambia>]. Accessed 28 September 2020.

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

#### 1.3.3a

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

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

**Current Year Score: 0**

There is insufficient evidence that regulations specify that security and other personnel with access to especially dangerous pathogens, toxins, or biological materials with pandemic potential are subject to one of the following checks: drug testing, background checks, and psychological or mental fitness checks. A Zambia National Public Health Institute (ZNPHI) document from July 2019 on infection control states that those with "access to select agents" will also require that each individual successfully passes a background security check to be independently conducted by the Zambia Police. However, there is no information regarding what these select agents encompass in this legislation. [1] No further evidence of drug testing or psychological or mental fitness checks could be found on the websites of the Ministries of Health, Agriculture, Livestock and Fisheries or Defence, or of the University Teaching Hospital, the National Health Research Authority (NHRA), the Multi-sectoral National Action Plan on Antimicrobial Resistance 2017-2027, the VERTIC legislation database. [2,3,4,5,6,7,8,9] The Joint External Evaluation (JEE) report for the Republic of Zambia, completed in August 2017, does not contain evidence of such regulations. [10] Although Zambia is party to the BWC, there is no public evidence that it has submitted Confidence-Building Measures reports. [11] No further information was found in media sources.

[1] Zambia National Public Health Institute. July 2019. Infection Control and Waste Management Plan.

[<http://documents1.worldbank.org/curated/pt/528371564990461571/text/Infection-Control-and-Waste-Management-Plan-for-Zambia.txt>]. Accessed 28 September 2020.

[2] Ministry of Health. [[www.moh.gov.zm](http://www.moh.gov.zm)]. Accessed 28 September 2020.

[3] Ministry of Agriculture. [[www.agriculture.gov.zm](http://www.agriculture.gov.zm)]. Accessed 28 September 2020.

[4] Ministry of Livestock and Fisheries. 2018. [[www.mlf.gov.zm](http://www.mlf.gov.zm)]. Accessed 28 September 2020.

[5] Ministry of Defence. [[www.mod.gov.zm](http://www.mod.gov.zm)]. Accessed 28 September 2020.

[6] University Teaching Hospital. [<http://www.uth.gov.zm/>]. Accessed 28 September 2020.

[7] The National Health Research Authority. [<https://www.nhra.org.zm/>]. Accessed 28 September 2020.

[8] WHO Publications. 2017. 'Multi-sectoral National Action Plan on Antimicrobial Resistance 2017-2027'. [<https://afro.who.int/sites/default/files/2018-08/ZNPHI%20Document.pdf>]. Accessed 28 September 2020.

[9] VERTIC. [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/z/>]. Accessed 28 September 2020.

[10] WHO. 2017. 'Joint External Evaluation of IHR Core capacities of the Republic of Zambia Mission report, 7-11 August 2017'. [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2017.50/en/>]. Accessed 28 September 2020.

[11] The United Nations Office at Geneva (UNOG). 2018. 'Biological weapons convention implementation support unit'. [<https://bwc-ecbm.unog.ch/state/zambia>]. Accessed 28 September 2020.

### 1.3.4 Transportation security

#### 1.3.4a

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

Yes = 1, No = 0

**Current Year Score: 0**

There is no publicly available information on Zambian national regulations for the safe and secure transport of infectious substances, referring to Categories A and B. No information on the transport of infectious substances could be found on the websites of the Ministries of Health, Agriculture, Livestock and Fisheries, Defence or Transport. [1,2,3,4,5] There is no

information about such transport from the University Teaching Hospital, the National Health Research Authority (NHRA), the Zambia National Public Health Institute (ZNPHI), the Multi-sectoral National Action Plan on Antimicrobial Resistance 2017-2027 or in the VERTIC legislation database . [6,7,8,9,10] No further information was found in media sources. The Zambian Civil Aviation Act of 2016 includes in its mandate " to provide for the transportation of dangerous goods (any article or substance which is capable of posing a significant risk to health, safety, property or the environment when transported by air) by air in compliance with Annex 18 to the Chicago Convention." or more specifically "the exercise of control over the conveyance in civil aircraft of dangerous goods specified or defined in the regulations, including the imposition of a prohibition of the conveyance of such goods and issuance of licences or certificates to persons specified in the regulations and engaged in the consigning or acceptance of such goods", but Categories A and B are not mentioned. [11] The Joint External Evaluation (JEE) report for the Republic of Zambia, completed in August 2017 notes as a strength: availability of institutional SOPs and equipment for specimen reception, storage, packaging and transportation at Reference Laboratories. However, it also mentions as an area needing attention: limited SOPs (in accordance with national or international guidelines) for the management and transport of potentially infectious materials and patients at the local level and points of entry. It makes no mention of Category A and B transport rules. [12] A World Federation for Culture Collections (WFCC) document, dated April 2008, states that Zambia is one of the Universal Postal Union (UPU) member countries whose postal administrations admit dispatch and receipt of perishable biological substances and infectious materials in mail. [13] Although Zambia is party to the BWC, there is no public evidence that it has submitted Confidence-Building Measures reports. [14]

[1] Ministry of Health. [[www.moh.gov.zm](http://www.moh.gov.zm)]. Accessed 29 September 2020.

[2] Ministry of Agriculture. [[www.agriculture.gov.zm](http://www.agriculture.gov.zm)]. Accessed 29 September 2020.

[3] Ministry of Livestock and Fisheries. [[www.mlf.gov.zm](http://www.mlf.gov.zm)]. Accessed 29 September 2020.

[4] Ministry of Defence. [[www.mod.gov.zm](http://www.mod.gov.zm)]. Accessed 29 September 2020.

[5] Ministry of Transport and Communications. [<http://www.mtc.gov.zm/>]. 29 September 2020.

[6] University Teaching Hospital. [<http://www.uth.gov.zm/>]. Accessed 29 September 2020.

[7] The National Health Research Authority. [<https://www.nhra.org.zm/>]. Accessed 29 September 2020.

[8] Zambia National Public Health Institute (ZNPHI). Surveillance and Disease Intelligence. [<http://znphi.co.zm/surveillance-and-disease-intelligence.html>]. Accessed 29 September 2020.

[9] WHO Publications. 2017. 'Multi-sectoral National Action Plan on Antimicrobial Resistance 2017-2027'. [<https://afro.who.int/sites/default/files/2018-08/ZNPHI%20Document.pdf>]. Accessed 29 September 2020.

[10] VERTIC. [<http://www.vertic.org/pages/homepage/programmes/national-implementation-measures/biological-weapons-and-materials/bwc-legislation-database/z.php>]. Accessed 29 September 2020.

[11] Zambia Civil Aviation Authority. 2018. Civil Aviation Act 2016. [<http://www.caa.co.zm/index.php?page=downloads>]. Accessed 29 September 2020.

[12] WHO. 2017. 'Joint External Evaluation of IHR Core capacities of the Republic of Zambia Mission report, 7-11 August 2017'. [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2017.50/en/>]. Accessed 29 September 2020.

[13] World Federation for Culture Collections (WFCC). April 2008. [[http://www.wfcc.info/pdf/wfcc\\_regulations.pdf](http://www.wfcc.info/pdf/wfcc_regulations.pdf)]. Accessed 29 September 2020.

[14] The United Nations Office at Geneva (UNOG). 2018. 'Biological weapons convention implementation support unit'. [<https://bwc-ecbm.unog.ch/state/zambia>]. Accessed 29 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**

There is no publicly available evidence that national legislation, regulation, or other guidance is in place to oversee the cross-border transfer and end-user screening of especially dangerous pathogens, toxins and pathogens with pandemic potential. No evidence could be found on the websites of the Ministries of Health, Agriculture, Livestock and Fisheries, Defence or Trade or the National Health Research Authority (NHRA) or in the VERTIC legislation database. [1,2,3,4,5,6,7]. The FedEx courier website has lists of prohibited items, both globally and country specific. Included in globally prohibited substances are those belonging to 'Division 6.2 infectious substances' (materials known or reasonably expected to contain a pathogens). In addition to this, Zambia prohibits "infectious substances", Dangerous goods (according to International Air Transport Association (IATA) specifications and "Bio products, Haz". [8] No further information was found in media sources. The Joint External Evaluation (JEE) report for the Republic of Zambia, completed in August 2017 does not include any information on cross-border transfer or end-user screening. [9] Although Zambia is party to the BWC, there is no public evidence that is has submitted Confidence-Building Measures reports. [10]

- [1] Ministry of Health. [[www.moh.gov.zm](http://www.moh.gov.zm)]. Accessed 29 September 2020.
- [2] Ministry of Agriculture. [[www.agriculture.gov.zm](http://www.agriculture.gov.zm)]. Accessed 29 September 2020.
- [3] Ministry of Livestock and Fisheries. [[www.mlf.gov.zm](http://www.mlf.gov.zm)]. Accessed 29 September 2020.
- [4] Ministry of Defence. [[www.mod.gov.zm](http://www.mod.gov.zm)]. Accessed 29 September 2020.
- [5] Ministry of Commerce, Trade and Industry. [<http://www.mcti.gov.zm/>]. Accessed 29 September 2020.
- [6] The National Health Research Authority. [<https://www.nhra.org.zm/>]. Accessed 29 September 2020.
- [7] VERTIC. [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/z/>]. Accessed 29 September 2020.
- [8] FedEx Cross Border. 2020. Globally and country specific prohibited items. [<https://crossborder.fedex.com/us/assets/prohibited-restricted/index.shtml#global>]. Accessed 29 September 2020.
- [9] WHO. 2017. 'Joint External Evaluation of IHR Core capacities of the Republic of Zambia Mission report, 7-11 August 2017'. [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2017.50/en/>]. Accessed 6 December 2018.
- [10] The United Nations Office at Geneva (UNOG). 2018. 'Biological weapons convention implementation support unit'. [<https://bwc-ecbm.unog.ch/state/zambia>]. Accessed 29 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: 0**

There is no publicly available evidence that Zambia has in place national biosafety legislation and/or regulations. No evidence could be found on the websites of the Ministries of Health, Agriculture, Livestock and Fisheries or the University Teaching Hospital or the National Health Research Authority (NHRA). [1,2,3,4,5] Neither was there any information on biosafety in the VERTIC legislation database or in any of the Acts for Public Health 1995, Animal Health 2010, Environmental Management 2011. [6,7,8,9] No further information was found in media sources. The Joint External Evaluation (JEE) report for the Republic of Zambia, completed in August 2017, states that Zambia has a Biosafety Act, enacted in 2007. This Act, however, is virtually exclusively about Genetically Modified Organisms (GMOs), referring solely to crops. [10,11] The National Action Plan does highlight improvements necessary in biosafety. [12] Although Zambia is party to the BWC, there is no public evidence that is

has submitted Confidence-Building Measures reports. [13]

- [1] Ministry of Health. [www.moh.gov.zm]. Accessed 29 September 2020.
- [2] Ministry of Agriculture. [www.agriculture.gov.zm]. Accessed 29 September 2020.
- [3] Ministry of Livestock and Fisheries. [www.mlf.gov.zm]. Accessed 29 September 2020.
- [4] University Teaching Hospital. [http://www.uth.gov.zm/]. Accessed 29 September 2020.
- [5] The National Health Research Authority. [https://www.nhra.org.zm/]. Accessed 29 September 2020.
- [6] VERTIC. [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/z/]. Accessed 29 September 2020.
- [7] Public Health Act 1995. [http://www.vertic.org/media/National%20Legislation/Zambia/ZM\_Public\_Health\_Act.pdf]. Accessed 29 September 2020.
- [8] Animal Health Act 2010. [http://extwprlegs1.fao.org/docs/pdf/zam102118.pdf]. 29 September 2020.
- [9] Environmental Management Act 2011. [file:///C:/Users/Andrew/Downloads/EMA.pdf]. 29 September 2020.
- [10] WHO. 2017. 'Joint External Evaluation of IHR Core capacities of the Republic of Zambia Mission report, 7-11 August 2017'. [http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2017.50/en/]. Accessed 29 September 2020.
- [11] Biosafety Act, No. 10 of 2007. [https://www.ecolex.org/details/legislation/biosafety-act-2007-no-10-of-2007-lex-faoc078318/]. Accessed 29 September 2020.
- [12] WHO Publications. 2017. 'Multi-sectoral National Action Plan on Antimicrobial Resistance 2017-2027'. [https://afro.who.int/sites/default/files/2018-08/ZNPHI%20Document.pdf]. Accessed 29 September 2020.
- [13] The United Nations Office at Geneva (UNOG). 2018. 'Biological weapons convention implementation support unit'. [https://bwc-ecbm.unog.ch/state/zambia]. Accessed 29 September 2020.

### 1.4.1b

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

Yes = 1 , No = 0

**Current Year Score: 0**

There is no publicly available evidence that Zambia has an established agency responsible for the enforcement of biosafety legislation and regulations. The National Biosafety Authority (NBA) "is a Government statutory institution established under the Ministry of Higher Education (MoHE) by the Biosafety Act No. 10 of 2007." This Act, however, is virtually exclusively about Genetically Modified Organisms (GMOs), referring solely to crops. [1] There is nothing about any other agency in the Joint External Evaluation (JEE) report for the Republic of Zambia, completed in August 2017. [2] Nothing further could be found on the websites of the Ministries of Health, Agriculture, Livestock and Fisheries or the National Health Research Authority (NHRA), the National Public Health Institute (ZNPHI) or the University Teaching Hospital or the VERTIC legislation database. [3,4,5,6,7,8,9] Although Zambia is party to the BWC, there is no public evidence that it has submitted Confidence-Building Measures reports. [10] No further information was found in media sources.

- [1] National Biosafety Authority. [http://www.nbazambia.org.zm/]. Accessed 29 September 2020.
- [2] WHO. 2017. 'Joint External Evaluation of IHR Core capacities of the Republic of Zambia Mission report, 7-11 August 2017'. [http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2017.50/en/]. Accessed 29 September 2020.
- [3] Ministry of Health. [www.moh.gov.zm]. Accessed 29 September 2020.
- [4] Ministry of Agriculture. [www.agriculture.gov.zm]. Accessed 29 September 2020.
- [5] Ministry of Livestock and Fisheries. 2018. [www.mlf.gov.zm]. Accessed 29 September 2020.
- [6] The National Health Research Authority. [https://www.nhra.org.zm/]. Accessed 29 September 2020.
- [7] Zambia National Public Health Institute (ZNPHI). Surveillance and Disease Intelligence. [http://znphi.co.zm/surveillance-and-disease-intelligence.html]. Accessed 29 September 2020.

[8] University Teaching Hospital. [<http://www.uth.gov.zm/>]. Accessed 29 September 2020.

[9] VERTIC. [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/z/>]. Accessed 29 September 2020.

[10] The United Nations Office at Geneva (UNOG). 2018. 'Biological weapons convention implementation support unit'. [<https://bwc-ecbm.unog.ch/state/zambia>]. Accessed 29 September 2020.

## 1.4.2 Biosafety training and practices

### 1.4.2a

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

Yes = 1, No = 0

**Current Year Score: 0**

There is no publicly available evidence that there is biosafety training, using a standardized, required approach, such as through a common curriculum or a train-the-trainer program, for personnel working in facilities housing or working with especially dangerous pathogens, toxins, or biological materials with pandemic potential. No reference of such training could be found on the websites of the Ministries of Health, Agriculture, Livestock and Fisheries or the National Health Research Authority (NHRA), the National Public Health Institute (ZNPHI) or the University Teaching Hospital or in the VERTIC legislation database. [1,2,3,4,5,6,7] No further information was found in media sources. The Joint External Evaluation (JEE) report for the Republic of Zambia, completed in August 2017 states that "Biosafety and biosecurity training is being conducted in all national reference laboratories. However, a comprehensive training needs assessment to identify training gaps has not been conducted. Training is also provided by each institution without a common curriculum. A train-the-trainers programme has not been established." [8] The New Partnership for Africa's Development (NEPAD) agency African Biosafety Network of Expertise (ABNE) has sponsored the participation of Zambian regulators in biosafety short courses, and several biosafety training workshops have also been organized in Lusaka since February 2015. [9] Although Zambia is party to the BWC, there is no public evidence that it has submitted Confidence-Building Measures reports. [10]

[1] Ministry of Health. 2018. [[www.moh.gov.zm](http://www.moh.gov.zm/)]. Accessed 29 September 2020.

[2] Ministry of Agriculture. 2018. [[www.agriculture.gov.zm](http://www.agriculture.gov.zm/)]. Accessed 29 September 2020.

[3] Ministry of Livestock and Fisheries. 2018. [[www.mlf.gov.zm](http://www.mlf.gov.zm/)]. Accessed 29 September 2020.

[4] The National Health Research Authority. [<https://www.nhra.org.zm/>]. Accessed 29 September 2020.

[5] Zambia National Public Health Institute (ZNPHI). 2018. Surveillance and Disease Intelligence.

[<http://znphi.co.zm/surveillance-and-disease-intelligence.html>]. Accessed 29 September 2020.

[6] University Teaching Hospital. [<http://www.uth.gov.zm/>]. Accessed 29 September 2020.

[7] VERTIC. [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/z/>]. Accessed 23 October 2020.

[8] WHO. 2017. 'Joint External Evaluation of IHR Core capacities of the Republic of Zambia Mission report, 7-11 August 2017'. [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2017.50/en/>]. Accessed 29 September 2020.

[9] NEPAD Agency African Biosafety Network of Expertise (ABNE). [[http://nepad-abne.net/contry\\_report/zambia/](http://nepad-abne.net/contry_report/zambia/)]. Accessed 29 September 2020.

[10] The United Nations Office at Geneva (UNOG). 2018. 'Biological weapons convention implementation support unit'. [<https://bwc-ecbm.unog.ch/state/zambia>]. Accessed 29 September 2020.

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

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

#### 1.5.1a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that 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. No evidence could be found on the websites of the Ministries of Health, Agriculture, Livestock and Fisheries or Defence or the University Teaching Hospital, the National Health Research Authority (NHRA), the Zambia National Public Health Institute (ZNPHI) or in the VERTIC legislation database. [1,2,3,4,5,6,7,8]. No further information was found in media sources. The Joint External Evaluation (JEE) report for the Republic of Zambia, completed in August 2017 states that there are 3 fixed and 1 mobile BSL-3 laboratories which ensure unlimited advanced work/research on highly contagious pathogens (eg Viral Haemorrhagic fever agents), but there is no specific mention of ongoing research in this field. [9] Although Zambia is party to the BWC, there is no public evidence that it has submitted Confidence-Building Measures reports. [10]

[1] Ministry of Health. [www.moh.gov.zm]. Accessed 29 September 2020.

[2] Ministry of Agriculture. [www.agriculture.gov.zm]. Accessed 29 September 2020.

[3] Ministry of Livestock and Fisheries. [www.mlf.gov.zm]. Accessed 29 September 2020.

[4] Ministry of Defence. [www.mod.gov.zm]. Accessed 29 September 2020.

[5] University Teaching Hospital. [http://www.uth.gov.zm/]. Accessed 29 September 2020.

[6] The National Health Research Authority. [https://www.nhra.org.zm/]. Accessed 29 September 2020.

[7] Zambia National Public Health Institute (ZNPHI). Surveillance and Disease Intelligence. [http://znphi.co.zm/surveillance-and-disease-intelligence.html]. Accessed 29 September 2020.

[8] VERTIC. [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/z/]. Accessed 23 October 2020.

[9] World Health Organisation (WHO). 2017. 'Joint External Evaluation of IHR Core capacities of the Republic of Zambia Mission report, 7-11 August 2017'. [http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2017.50/en/]. Accessed 29 September 2020.

[10] The United Nations Office at Geneva (UNOG). 2018. 'Biological weapons convention implementation support unit'. [https://bwc-ecbm.unog.ch/state/zambia]. Accessed 29 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 a national policy requiring oversight of dual use research, such as research with especially dangerous pathogens, toxins, and/or pathogens with pandemic potential. No evidence could be found on the

websites of the Ministries of Health, Agriculture, Livestock and Fisheries or Defence or the University Teaching Hospital, the National Health Research Authority (NHRA) or the Zambia National Public Health Institute (ZNPHI) or in the VERTIC legislation database. [1,2,3,4,5,6,7,8] The Joint External Evaluation (JEE) report for the Republic of Zambia, completed in August 2017, has no details of such a policy. [9] No further information was found in media sources. Although Zambia is party to the BWC, there is no public evidence that it has submitted Confidence-Building Measures reports. [10]

- [1] Ministry of Health. [[www.moh.gov.zm](http://www.moh.gov.zm)]. Accessed 29 September 2020.
- [2] Ministry of Agriculture. [[www.agriculture.gov.zm](http://www.agriculture.gov.zm)]. Accessed 29 September 2020.
- [3] Ministry of Livestock and Fisheries. [[www.mlf.gov.zm](http://www.mlf.gov.zm)]. Accessed 29 September 2020.
- [4] Ministry of Defence. [[www.mod.gov.zm](http://www.mod.gov.zm)]. Accessed 29 September 2020.
- [5] University Teaching Hospital. [<http://www.uth.gov.zm/>]. Accessed 29 September 2020.
- [6] The National Health Research Authority. [<https://www.nhra.org.zm/>]. Accessed 29 September 2020.
- [7] Zambia National Public Health Institute (ZNPHI). Surveillance and Disease Intelligence. [<http://znphi.co.zm/surveillance-and-disease-intelligence.html>]. Accessed 29 September 2020.
- [8] VERTIC. [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/z/>]. Accessed 23 October 2020.
- [9] WHO. 2017. 'Joint External Evaluation of IHR Core capacities of the Republic of Zambia Mission report, 7-11 August 2017'. [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2017.50/en/>]. Accessed 29 September 2020.
- [10] The United Nations Office at Geneva (UNOG). 2018. 'Biological weapons convention implementation support unit'. [<https://bwc-ecbm.unog.ch/state/zambia>]. Accessed 29 September 2020.

### 1.5.1c

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

Yes = 1 , No = 0

**Current Year Score: 0**

There is no publicly available evidence that there is an agency responsible for oversight of research with especially dangerous pathogens, pathogens with pandemic potential, and/or other dual use research. No evidence could be found on the websites of the Ministries of Health, Agriculture, Livestock and Fisheries or Defence or the University Teaching Hospital, the National Health Research Authority (NHRA) or the Zambia National Public Health Institute (ZNPHI) or in the VERTIC legislation database. [1,2,3,4,5,6,7,8] The 2017 Joint External Evaluation (JEE) report has no details of such an agency. [9] Although Zambia is party to the BWC, there is no public evidence that it has submitted Confidence-Building Measures reports. [10] No further information was found in media sources. The National Laboratory system has no online presence.

- [1] Ministry of Health. [[www.moh.gov.zm](http://www.moh.gov.zm)]. Accessed 29 September 2020.
- [2] Ministry of Agriculture. [[www.agriculture.gov.zm](http://www.agriculture.gov.zm)]. Accessed 29 September 2020.
- [3] Ministry of Livestock and Fisheries. [[www.mlf.gov.zm](http://www.mlf.gov.zm)]. Accessed 29 September 2020.
- [4] Ministry of Defence. [[www.mod.gov.zm](http://www.mod.gov.zm)]. Accessed 29 September 2020.
- [5] University Teaching Hospital. [<http://www.uth.gov.zm/>]. Accessed 29 September 2020.
- [6] The National Health Research Authority. [<https://www.nhra.org.zm/>]. Accessed 29 September 2020.
- [7] Zambia National Public Health Institute (ZNPHI). Surveillance and Disease Intelligence. [<http://znphi.co.zm/surveillance-and-disease-intelligence.html>]. Accessed 29 September 2020.
- [8] VERTIC. [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/z/>]. Accessed 23 October 2020.
- [9] WHO. 2017. 'Joint External Evaluation of IHR Core capacities of the Republic of Zambia Mission report, 7-11 August 2017'.



[<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2017.50/en/>]. Accessed 29 September 2020.

[10] The United Nations Office at Geneva (UNOG). 2018. 'Biological weapons convention implementation support unit'.

[<https://bwc-ecbm.unog.ch/state/zambia>]. Accessed 29 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 insufficient publicly available evidence of national legislation, regulation, policy, or other guidance, requiring the screening of synthesized DNA before it is sold. The Biosafety Act of 2007 states in Section 24 (Risk Assessment) para 3 (l) that information required for risk assessment should include the following: "probability of inserts or transferred gene(s) to generate pathogenic recombinants with endogenous viruses, plasmids and bacteria." This is specifically about agricultural Genetically Modified Organisms (GMOs) however. [1] No evidence could be found on the websites of the Ministries of Health, Agriculture, Livestock and Fisheries, Defence or Transport or the University Teaching Hospital, the National Health Research Authority (NHRA), the Zambia National Public Health Institute (ZNPHI) or in the VERTIC legislation database. [2,3,4,5,6,7,8,9,10] The Joint External Evaluation (JEE) report for the Republic of Zambia, completed in August 2017, has no details of such legislation [11] Although Zambia is party to the BWC, there is no public evidence that it has submitted Confidence-Building Measures reports. [12] No further information was found in media sources. The National Laboratory system has no online presence.

[1] Biosafety Act, No. 10 of 2007. [<https://www.ecolex.org/details/legislation/biosafety-act-2007-no-10-of-2007-lex-faoc078318/>]. Accessed 29 September 2020.

[2] Ministry of Health. [[www.moh.gov.zm](http://www.moh.gov.zm)]. Accessed 29 September 2020.

[3] Ministry of Agriculture. [[www.agriculture.gov.zm](http://www.agriculture.gov.zm)]. Accessed 29 September 2020.

[4] Ministry of Livestock and Fisheries. [[www.mlf.gov.zm](http://www.mlf.gov.zm)]. Accessed 29 September 2020.

[5] Ministry of Defence. [[www.mod.gov.zm](http://www.mod.gov.zm)]. Accessed 29 September 2020. [6] Ministry of Transport and Communications. [<http://www.mtc.gov.zm/>]. Accessed 29 September 2020.

[7] University Teaching Hospital. [<http://www.uth.gov.zm/>]. Accessed 29 September 2020.

[8] The National Health Research Authority. [<https://www.nhra.org.zm/>]. Accessed 29 September 2020.

[9] Zambia National Public Health Institute (ZNPHI). Surveillance and Disease Intelligence. [<http://znphi.co.zm/surveillance-and-disease-intelligence.html>]. Accessed 29 September 2020.

[10] VERTIC. [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/z/>]. Accessed 23 October 2020.

[11] World Health Organisation (WHO). 2017. 'Joint External Evaluation of IHR Core capacities of the Republic of Zambia Mission report, 7-11 August 2017'. [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2017.50/en/>]. Accessed 29 September 2020.

[12] The United Nations Office at Geneva (UNOG). 2018. 'Biological weapons convention implementation support unit'. [<https://bwc-ecbm.unog.ch/state/zambia>]. Accessed 29 September 2020.

## 1.6 IMMUNIZATION

### 1.6.1 Vaccination rates

#### 1.6.1a

Immunization rate (measles/MCV2)

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

Current Year Score: 0

2019

World Health Organization

#### 1.6.1b

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

Yes = 1, No = 0

Current Year Score: 0

2020

OIE WAHIS database

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

## 2.1 LABORATORY SYSTEMS STRENGTH AND QUALITY

### 2.1.1 Laboratory testing for detection of priority diseases

#### 2.1.1a

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

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

Current Year Score: 1

The Zambian national laboratory system does have the capacity to conduct diagnostic tests for at least 5 of the 10 WHO-defined core tests but the tests are not named. The Joint External Evaluation (JEE) report for the Republic of Zambia, completed in August 2017, shows a score of 4 for 'Laboratory testing for detection of priority diseases' (D.1.1.), but it does not give details of which core tests [1] The Joint External Evaluation Tool (1st edition) states that a score of 4 on D.1.1 means

that the "National laboratory system is capable of conducting five or more of the ten core tests". [2] The JEE report also states that the national medical laboratory system is supported by the University Teaching Hospital (UTH), the National Food and Drug Control Laboratory and the National Chest Disease Laboratories (which focuses primarily on tuberculosis), and that the University of Zambia is also a national reference laboratory. [1] No further information could be found on the websites of the Ministry of Health, the Zambia National Public Health Institute, the University Teaching Hospital (UTH) or the University of Zambia on the ability of the Zambian national laboratory system to test for the 10 WHO-defined tests. Neither do they provide details on what the four country-defined tests are. [3,4,5,6] The National Laboratory system has no online presence.

[1] World Health Organisation (WHO). 2017. 'Joint External Evaluation of IHR Core capacities of the Republic of Zambia Mission report, 7-11 August 2017'. [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2017.50/en/>]. Accessed 29 September 2020.

[2] WHO. 2019. 'Joint External Evaluation Tool - International Health Regulations 2005'. [[https://apps.who.int/iris/bitstream/handle/10665/204368/9789241510172\\_eng.pdf;jsessionid=66B7831279993095B5423FE6D1646C6D?sequence=1](https://apps.who.int/iris/bitstream/handle/10665/204368/9789241510172_eng.pdf;jsessionid=66B7831279993095B5423FE6D1646C6D?sequence=1)]. Accessed 29 September 2020.

[3] Zambia National Public Health Institute. [<http://znphi.co.zm/>]. Accessed 29 September 2020.

[4] University Teaching Hospital. [<http://www.uth.gov.zm/>]. Accessed 29 September 2020.

[5] Ministry of Health. [[www.moh.gov.zm](http://www.moh.gov.zm/)]. Accessed 29 September 2020.

[6] University of Zambia. [[https://www.unza.zm](https://www.unza.zm/)]. Accessed 29 September 2020.

### 2.1.1b

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

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

**Current Year Score: 0**

There is no publicly available evidence of 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.

The Multi-sectoral National Action Plan on Antimicrobial Resistance 2017-2027 does include encouragement "for industry to invest in research and development of novel antimicrobials and therapeutics" but there is no mention of public health emergency testing. Neither is there any mention of scaling capacity or defining goals for testing. [1] No further evidence could be found in the October 2020 Environmental and Social Commitment Plan (ESCP), the Zambia National Health Strategic Plan 2017-2021 or on the websites of the Ministries of Health or Agriculture or the Zambia National Public Health Institute (ZNPHI). [2,3,4,5,6] The National Laboratory system has no online presence.

[1] World Health Organisation (WHO) Publications. 2017. 'Multi-sectoral National Action Plan on Antimicrobial Resistance 2017-2027'. [<https://afro.who.int/sites/default/files/2018-08/ZNPHI%20Document.pdf>]. Accessed 29 September 2020.

[2] Ministry of Health; COVID-19 Emergency Response and Health Systems Preparedness Project. Environmental and Social Commitment Plan (ESCP). 8 October 2020. [[https://www.moh.gov.zm/?wpfb\\_dl=158](https://www.moh.gov.zm/?wpfb_dl=158)]. Accessed 8 April 2021.

[3] Zambia National Health Strategic Plan 2017-2021.

[<http://dspace.unza.zm/bitstream/handle/123456789/5113/National%20Health%20Policy%20-%20Final.pdf?sequence=1&isAllowed=y>], Accessed 8 April 2021.

[4] Ministry of Health. [[www.moh.gov.zm](http://www.moh.gov.zm/)]. Accessed 29 September 2020.

[5] Ministry of Agriculture. [www.agriculture.gov.zm]. Accessed 29 September 2020.

[6] Zambia National Public Health Institute (ZNPHI). [http://znphi.co.zm/]. Accessed 29 September 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: 0**

There is no publicly available evidence that national laboratories that serve as reference facilities are accredited. The Joint External Evaluation (JEE) report for the Republic of Zambia, completed in August 2017, names three reference laboratories: University of Zambia (UNZA), University Teaching Hospital (UTH) and the Central Veterinary Research Institute. It also states that 3 functional Biosafety Level 3 (BSL-3) laboratories exist, but there is no indication which facilities these are. Additionally, the report lists as a priority action; piloting the laboratory network "towards the WHO Stepwise accreditation system". [1] The Strengthening Laboratory Management Toward Accreditation (SLMTA) website states, in a 2020 list, that ISO 15189 accreditation was awarded to: Centre for Infectious Disease Research in Zambia (CIDRZ) in July 2018, Livingstone Central Hospital Laboratory in November 2018 and Nchanga North General Hospital Laboratory in December 2018. None of these are apparently reference facilities, however. [2] No further evidence could be found on the websites of the Ministry of Health, the University Teaching Hospital, the National Health Research Authority (NHRA) or the Zambia National Public Health Institute (ZNPHI). [3,4,5,6] In the Zambia National Health Strategic Plan 2017-2021 it states "In a quest to improve quality, Zambia enrolled 17 laboratories into the WHO/ African Society for Laboratory Management quality improvement process; two were assessed and granted a two-star rating. To achieve international accreditation, Zambia needs to develop and implement a national laboratory quality assurance program, with a dedicated secretariat." [7]

[1] World Health Organisation (WHO). 2017. 'Joint External Evaluation of IHR Core capacities of the Republic of Zambia Mission report, 7-11 August 2017'. [http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2017.50/en/]. Accessed 30 September 2020.

[2] Strengthening Laboratory Management Toward Accreditation (SLMTA). 2020. "SLMTA Laboratories that have achieved accreditation". [https://slmta.org/accredited-labs/]. Accessed 30 September 2020.

[3] Ministry of Health. 2018. [www.moh.gov.zm]. Accessed 30 September 2020.

[4] University Teaching Hospital. [http://www.uth.gov.zm/]. Accessed 30 September 2020.

[5] The National Health Research Authority. [https://www.nhra.org.zm/]. Accessed 30 September 2020.

[6] Zambia National Public Health Institute (ZNPHI). Surveillance and Disease Intelligence. [http://znphi.co.zm/surveillance-and-disease-intelligence.html]. Accessed 30 September 2020.

[7] Zambia National Health Strategic Plan 2017-2021. [https://www.medbox.org/countries/zambia-national-health-strategic-plan-2017-2021/preview]. Accessed 30 September 2020.

### 2.1.2b

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

Yes = 1 , No = 0

**Current Year Score: 0**

There is insufficient publicly available evidence that the national laboratories that serve as reference facilities are subject to external quality assurance review. According to the Joint External Evaluation (JEE) report for the Republic of Zambia, completed in August 2017, there are reference laboratories in the country. The report names three: University of Zambia (UNZA), University Teaching Hospital (UTH) and the Central Veterinary Research Institute. The report mentions the "Existence of national and external Quality Assurance Schemes (EQAS and NEQAS)" but there is no further information which laboratories these apply to, or how often they are performed. [1] There is a current, and ongoing, project being run by the International Federation of Clinical Chemistry and Laboratory Medicine (IFCC) to set Zambian laboratories up for regular external quality assurance. There have been challenges, the main one being a shortage of reagents. [2] No evidence of such reviews was found on the websites of the Ministries of Health or Agriculture, the University of Zambia, the University Teaching Hospital or the Zambia National Public Health Institute (ZNPHI). [3,4,5,6,7]

[1] WHO. 2017. 'Joint External Evaluation of IHR Core capacities of the Republic of Zambia Mission report, 7-11 August 2017'. [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2017.50/en/>]. Accessed 30 September 2020.

[2] International Federation of Clinical Chemistry and Laboratory Medicine (IFCC). June 2019. "IFCC-BFZ External Quality assurance project in Zambia". [<https://www.ifcc.org/ifcc-communications-publications-division-cpd/newsarchive-links/enews-2019-06/>]. Accessed 30 September 2020.

[3] Ministry of Health. [[www.moh.gov.zm](http://www.moh.gov.zm)]. Accessed 30 September 2020.

[4] Ministry of Agriculture. [[www.agriculture.gov.zm](http://www.agriculture.gov.zm)]. Accessed 30 September 2020.

[5] University of Zambia. [<https://www.unza.zm>]. Accessed 30 September 2020.

[6] University Teaching Hospital. [<http://www.uth.gov.zm/>]. Accessed 30 September 2020.

[7] Zambia National Public Health Institute (ZNPHI). Surveillance and Disease Intelligence. [<http://znphi.co.zm/lab-systems-and-networks.html>]. Accessed 30 September 2020.

## 2.2 LABORATORY SUPPLY CHAINS

### 2.2.1 Specimen referral and transport system

#### 2.2.1a

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

Yes = 1 , No = 0

**Current Year Score: 0**

There is no publicly available evidence that Zambia has a nationwide specimen transport system. No evidence of a specimen transport system found on the websites of the Ministries of Health, Agriculture or Livestock and Fisheries or the University Teaching Hospital or the Zambia National Public Health Institute (ZNPHI). [ 1,2,3,4,5] There is no OIE PVS (Performance of Veterinary Services) Evaluation or a Gap Analysis for Zambia. [6] Independent Online (IOL) article, dated 4 May 2020, the Minister of Health justified the transport of Covid-19 samples on a public bus, claiming that "it was normal practice for the health ministry to transport samples on public transport." [7] This is in direct contravention of the Zambia Public Health Act, which states, under Chapter 295 of, section 1 to 68, it is illegal and negligence for a health practitioner to carry laboratory specimen using public transport. [8] The Joint External Evaluation (JEE) report for the Republic of Zambia, completed in August 2017 notes as strengths "The existence of a mechanism and consistency of sample transportation in partner-funded programmes (HIV, TB, Malaria and Polio); Availability of institutional SOPs and equipment for specimen reception, storage, packaging and transportation at Reference Laboratories." However, it also highlights weaknesses including, insufficient sample transportation packaging; gaps in sample collection, storage and transportation; limited SOPs for the management and transport of potentially infectious materials and patients. [9] In the 2017 WHO Multi-sectoral National Action Plan on Antimicrobial Resistance the establishment of a safe and appropriate specimen collection and transport system is

recommended. [10] In 2012 the Riders Simple Transport (ST) programme extended into Zambia. Riders for Health's mission is to strengthen health systems by addressing transport and logistics. They enable transportation of diagnostic samples and test results. [11]

- [1] Ministry of Health. 2018. [www.moh.gov.zm]. Accessed 30 September 2020.
- [2] Ministry of Agriculture. 2018. [www.agriculture.gov.zm]. Accessed 30 September 2020.
- [3] Ministry of Livestock and Fisheries. 2018. [www.mlf.gov.zm]. Accessed 30 September 2020.
- [4] University Teaching Hospital. [http://www.uth.gov.zm/]. Accessed 30 September 2020.
- [5] Zambia National Public Health Institute (ZNPHI). 2018. Surveillance and Disease Intelligence. [http://znphi.co.zm/surveillance-and-disease-intelligence.html]. Accessed 30 September 2020.
- [6] World Organisation for Animal Health (OIE). "PVS Evaluation reports". [https://www.oie.int/solidarity/pvs-evaluations/pvs-evaluation-reports/]. Accessed 30 September 2020.
- [7] Independent Online (IOL). 4 May 2020. "Zambian lab technician dies transporting Covid-19 sample by bus". [https://www.iol.co.za/news/africa/zambian-lab-technician-dies-transporting-covid-19-sample-by-bus-47536474]. Accessed 30 September 2020.
- [8] Public Health Act 1995. [http://www.vertic.org/media/National%20Legislation/Zambia/ZM\_Public\_Health\_Act.pdf]. Accessed 30 September 2020.
- [9] WHO. 2017. 'Joint External Evaluation of IHR Core capacities of the Republic of Zambia Mission report, 7-11 August 2017'. [http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2017.50/en/]. Accessed 30 September 2020.
- [10] WHO Publications. 2017. 'Multi-sectoral National Action Plan on Antimicrobial Resistance 2017-2027'. [https://afro.who.int/sites/default/files/2018-08/ZNPHI%20Document.pdf]. Accessed 30 September 2020.
- [11] Ashoka Changemakers. 2017. 'A life-saving diagnosis: Sample Transport, reducing the time delay in monitoring and diagnosing HIV and TB.' [https://www.changemakers.com/morehealth/entries/life-saving-diagnosis-sample-transport-reducing-time-de]. Accessed 30 September 2020.

## 2.2.2 Laboratory cooperation and coordination

### 2.2.2a

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

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

**Current Year Score: 0**

There is no publicly available evidence of 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. No information on this could be found on the websites of the Ministries of Health or Agriculture, the Zambia National Public Health Institute (ZNPHI) or in the Multi-sectoral National Action Plan on Antimicrobial Resistance 2017-2027. [1,2,3,4] The National Laboratory system has no online presence.

- [1] Ministry of Health. [www.moh.gov.zm]. Accessed 30 September 2020.
- [2] Ministry of Agriculture. [www.agriculture.gov.zm]. Accessed 30 September 2020.
- [3] Zambia National Public Health Institute (ZNPHI). [http://znphi.co.zm/]. Accessed 30 September 2020.
- [4] WHO Publications. 2017. 'Multi-sectoral National Action Plan on Antimicrobial Resistance 2017-2027'. [https://afro.who.int/sites/default/files/2018-08/ZNPHI%20Document.pdf]. Accessed 30 September 2020.

## 2.3 REAL-TIME SURVEILLANCE AND REPORTING

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

#### 2.3.1a

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

Yes, there is evidence of ongoing event-based surveillance and evidence that the data is being analyzed on a daily basis = 2,  
Yes, there is evidence of ongoing event-based surveillance, but no evidence that the data are being analyzed on a daily basis  
= 1, No = 0

**Current Year Score: 0**

There is insufficient publicly available evidence that Zambia is conducting ongoing event-based surveillance and analysis for infectious disease. No detail on event-based surveillance could be found on the websites of the Ministries of Agriculture or Livestock and Fisheries, the University Teaching Hospital or in the Zambia National Public Health Institute (ZNPPI) document "Zambia's response to COVID-19", the Multi-sectoral National Action Plan on Antimicrobial Resistance 2017-2027 or the 2020 National Integrated Antimicrobial Resistance Surveillance Strategy (NIAMRSS). [1,2,3,4,5,6] There is no publicly available OIE PVS (Performance of Veterinary Services) Evaluation or a Gap Analysis for Zambia. A United Nations High Commissioner for Refugees (UNHCR) news brief, dated 3 April 2020, stated that surveillance (including event-based surveillance) is active. This is, however, event and disease specific. [7] The Joint External Evaluation (JEE) report for the Republic of Zambia, completed in August 2017 states that "the Public Health Emergency Operation Centre (PHEOC) has been established and coordinates response to public health events although it is not fully operational. It has basic communication equipment but no dedicated hotline that people or clinicians could call for help when dealing with a public health threat." Neither the public health nor animal health systems have an event-based surveillance system. [8]

[1] Ministry of Agriculture. [www.agriculture.gov.zm]. Accessed 30 September 2020.

[2] Ministry of Livestock and Fisheries. [www.mlf.gov.zm]. Accessed 30 September 2020.

[3] University Teaching Hospital. [http://www.uth.gov.zm/]. Accessed 30 September 2020.

[4] Zambia National Public Health Institute, Ministry of Health. 16 April 2020. 'Zambia's response to COVID-19'.

[https://www.reactgroup.org/wp-content/uploads/2020/04/Session-5d-Ms.-Otridah-Kapona-Zambia\_-COVID-19\_16.04.20-.pdf].

[5] WHO Publications. 2017. 'Multi-sectoral National Action Plan on Antimicrobial Resistance 2017-2027'.

[https://afro.who.int/sites/default/files/2018-08/ZNPPI%20Document.pdf]. Accessed 30 September 2020.

[6] The Zambia National Integrated Antimicrobial Resistance Surveillance Strategy (NIAMRSS). 2020.

[https://reliefweb.int/sites/reliefweb.int/files/resources/Integrated%20Antimicrobial%20Resistance%20Surveillance%20Framework%20-PRINT%20VERSION.pdf]. Accessed 30 September 2020.

[7] United Nations High Commissioner for Refugees (UNHCR). Zambia Covid-19 Update, Issue No: 1 (3 April 2020).

[https://reliefweb.int/report/zambia/unhcr-zambia-covid-19-update-issue-no-1-3-april-2020]. Accessed 30 September 2020.

[8] World Health Organisation (WHO). 2017. 'Joint External Evaluation of IHR Core capacities of the Republic of Zambia Mission report, 7-11 August 2017'. [http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2017.50/en/]. Accessed 30 September 2020.

#### 2.3.1b

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

Yes = 1, No = 0

**Current Year Score: 0**

There is insufficient publicly available evidence that Zambia reported a potential public health emergency of international concern (PHEIC) to the WHO within the last two years. The most recent report on the World Health Organisation (WHO) Disease Outbreak News website is a December 2017 report of an outbreak of cholera in Lusaka. [1] Zambia's Ministry of Health did publicly confirm the first two coronavirus cases in the country on 18 March 2020, but there is no evidence of an official report to WHO. [2] Nothing further could be found on the Ministry of Health website, including the COVID-19 'Chatbot' attached to it. [3]

[1] WHO - Disease Outbreak News. Emergencies preparedness, response.

[<https://www.who.int/csr/don/archive/country/zmb/en/>]. Accessed 30 September 2020.

[2] Tass News Agency. 18 March 2020. 'First two coronavirus cases confirmed in Zambia'. [<https://tass.com/world/1131937>]. Accessed 30 September 2020.

[3] Ministry of Health. [[www.moh.gov.zm](http://www.moh.gov.zm)]. Accessed 30 September 2020.

## 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**

There is evidence that the government operates an electronic reporting surveillance system at both the national and sub-national level. The Zambia National Public Health Institute (ZNPHI) states that "The electronic IDSR system is housed on the DHIS2 platform. It captures all data on key priority diseases, including HIV, TB, and Malaria, that's not captured in full in the IDSR system. National data collected is automated and available at all levels immediately in real time." [1] A British Medical Journal article, dated 18 May 2019, states that Zambia has adapted the second edition of the Integrated Disease Surveillance and Response (IDSR), and has produced and disseminated bulletins. [2] No further evidence could be found on the websites of the Ministry of Health or the University Teaching Hospital. [3,4] The Joint External Evaluation (JEE) report for the Republic of Zambia, completed in August 2017, indicates that although an eIDSR module on the DHIS2 Web based platform exists, it is yet to be activated. [5] One of the activities in Objective 2 of the Multi-sectoral National Action Plan on Antimicrobial Resistance is to establish electronic platform for community-based surveillance reporting. [6]

[1] Zambia National Public Health Institute (ZNPHI). Surveillance and Disease Intelligence. [<http://znphi.co.zm/surveillance-and-disease-intelligence.html>]. Accessed 30 September 2020.

[2] British Medical Journal - Global Health. 18 May 2019. 'Integrated Disease Surveillance and Response (IDSR) strategy: current status, challenges and perspectives for the future in Africa'.

[<https://gh.bmj.com/content/bmjgh/4/4/e001427.full.pdf>]. Accessed 30 September 2020.

[3] Ministry of Health. [[www.moh.gov.zm](http://www.moh.gov.zm)]. Accessed 30 September 2020.

[4] University Teaching Hospital. [<http://www.uth.gov.zm/>]. Accessed 30 September 2020.

[5] World Health Organisation (WHO). 2017. 'Joint External Evaluation of IHR Core capacities of the Republic of Zambia Mission report, 7-11 August 2017'. [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2017.50/en/>]. Accessed 30 September 2020.

[6] WHO Publications. 2017. 'Multi-sectoral National Action Plan on Antimicrobial Resistance 2017-2027'.

[<https://afro.who.int/sites/default/files/2018-08/ZNPHI%20Document.pdf>]. Accessed 30 September 2020.



### 2.3.2b

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

Yes = 1 , No = 0

**Current Year Score: 1**

There is evidence that the electronic reporting surveillance system collects real time laboratory data. The Zambia National Public Health Institute (ZNPHI) states that "The electronic IDSR system is housed on the DHIS2 platform. It captures all data on key priority diseases, including HIV, TB, and Malaria, that's not captured in full in the IDSR system. National data collected is automated and available at all levels immediately in real time." Also "The system works harmoniously to include other key areas including laboratory surveillance". [1]

[1] Zambia National Public Health Institute (ZNPHI). Surveillance and Disease Intelligence. [<http://znphi.co.zm/surveillance-and-disease-intelligence.html>]. Accessed 30 September 2020.

## 2.4 SURVEILLANCE DATA ACCESSIBILITY AND TRANSPARENCY

### 2.4.1 Coverage and use of electronic health records

#### 2.4.1a

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

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

**Current Year Score: 1**

There is publicly available evidence that electronic health records are in use. The 2016 World Health Organization (WHO) Atlas of eHealth country profile for Zambia indicates that there has been a National Electronic Health Records system in place since 2009, but only 25-50% of primary care facilities and less than 25% of secondary care facilities have them. [1] The Zambia National Public Health Institute (ZNPHI) developed and manages a national data warehouse that houses all public health surveillance and survey data. Stakeholders are required to deposit their data into this national repository. [2] A National Center for Biotechnology Information (NCBI) report from 2019 describes SmartCare, an electronic health records (EHR) system initiated by the Ministry of Health (MoH) and funded by the US Centre for Disease Control and Prevention. The system has not been a success due to many drawbacks, including lack of funds and lack of feedback. [3] However there is no mention of an electronic health record (EHR) system in any of the websites of the Ministry of Health, the University Teaching Hospital (UTH), the Centre for Infectious Disease Research in Zambia (CIDRZ), the Program for Appropriate Technology in Health (PATH) or in the 2017 Joint External Evaluation (JEE) report. [4,5,6,7,8] This would indicate that although EHR are in place, they are not widely used (50% or less).

[1] World Health Organization (WHO) Atlas of eHealth. 2016. Country profile for Zambia.

[<https://www.who.int/goe/publications/atlas/2015/zmb.pdf?ua=1>]. Accessed on 30 September 2020.

[2] ZNPHI. [<http://znphi.co.zm/surveillance-and-disease-intelligence.html>]. Accessed 30 September 2020.

[3] National Center for Biotechnology Information. 2019. 'A qualitative inquiry into implementing an electronic health record system (SmartCare) for prevention of mother-to-child transmission data in Zambia: a retrospective study'.

[<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6731929/>]. Accessed 30 September 2020.

[4] Ministry of Health. [[www.moh.gov.zm](http://www.moh.gov.zm)]. Accessed 30 September 2020.

[5] University Teaching Hospital. [<http://www.uth.gov.zm/>]. Accessed 30 September 2020.

[6] Centre for Infectious Disease Research in Zambia (CIDRZ). [<http://www.cidrz.org/>]. Accessed 30 September 2020.

[7] PATH (Program for Appropriate Technology in Health), Zambia. <https://www.path.org/where-we-work/zambia/>. Accessed 30 September 2020.

[8] World Health Organization (WHO). 2017. 'Joint External Evaluation of IHR Core capacities of the Republic of Zambia Mission report, 7-11 August 2017'. [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2017.50/en/>]. Accessed 30 September 2020.

### 2.4.1b

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

Yes = 1 , No = 0

**Current Year Score: 0**

There is no publicly available evidence that Zambia's national public health system has access to electronic health records of individuals. A Researchgate article, dated January 2019, states that the University Teaching Hospital (UTH), an integral national referral Hospital, reported major drawbacks from the current manual system, and the "Lack of a SNOMED CT E.H.R System in surgery departments causes inefficient scheduling of surgical procedures, insufficient and inaccurate pertinent patient historical information, misconceptions and error arising from ambiguities in terminology usage." [1] The 2016 World Health Organization (WHO) Atlas of eHealth country profile for Zambia indicates that there is 'intermediate' access to patient records, where 'intermediate' indicates 'District or provincial facilities: public and private hospitals and health centres'. [2] The Zambia National Public Health Institute (ZNPHI) lists data collation, sharing and dissemination amongst its objectives, but this is all surveillance specific, not individual electronic health records. [3] There is no mention of an electronic health record (EHR) system in any of the websites of the Ministry of Health, the Centre for Infectious Disease Research in Zambia (CIDRZ), the Program for Appropriate Technology in Health (PATH) or on the Joint External Evaluation (JEE) report for the Republic of Zambia, completed in August 2017. [4,5,6,7]

[1] Researchgate. January 2019. 'Challenges of Medical Records Interoperability in Developing Countries: A Case Study of the University Teaching Hospital in Zambia'.

[[https://www.researchgate.net/publication/330828468\\_Challenges\\_of\\_Medical\\_Records\\_Interoperability\\_in\\_Developing\\_Countries\\_A\\_Case\\_Study\\_of\\_the\\_University\\_Teaching\\_Hospital\\_in\\_Zambia](https://www.researchgate.net/publication/330828468_Challenges_of_Medical_Records_Interoperability_in_Developing_Countries_A_Case_Study_of_the_University_Teaching_Hospital_in_Zambia)]. Accessed 1 October 2020.

[2] WHO Atlas of eHealth. 2016. Country profile for Zambia.

[<https://www.who.int/goe/publications/atlas/2015/zmb.pdf?ua=1>]. Accessed 1 October 2020.

[3] ZNPHI. [<http://znphi.co.zm/surveillance-and-disease-intelligence.html>]. Accessed 1 October 2020.

[4] Ministry of Health. [[www.moh.gov.zm](http://www.moh.gov.zm)]. Accessed 1 October 2020.

[5] Centre for Infectious Disease Research in Zambia (CIDRZ). [<http://www.cidrz.org/>]. Accessed 1 October 2020.

[6] PATH (Program for Appropriate Technology in Health), Zambia. <https://www.path.org/where-we-work/zambia/>. Accessed 1 October 2020.

[7] WHO. 2017. 'Joint External Evaluation of IHR Core capacities of the Republic of Zambia Mission report, 7-11 August 2017'. [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2017.50/en/>]. Accessed 1 October 2020.

### 2.4.1c

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

Yes = 1 , No = 0

**Current Year Score: 0**

There is no evidence that Zambia has data standards to ensure data is comparable. No evidence could be found on any of the websites of the 2016 World Health Organization (WHO) Atlas of eHealth country profile for Zambia, the Zambia National

Public Health Institute (ZNPHI), the Ministry of Health, the University Teaching Hospital (UTH), the Centre for Infectious Disease Research in Zambia (CIDRZ), the Program for Appropriate Technology in Health (PATH) or on the 2017 Joint External Evaluation of IHR Core capacities of the Republic of Zambia Mission report. [1,2,3,4,5,6,7] The national laboratory system has no online presence.

- [1] World Health Organisation (WHO) Atlas of eHealth. 2016. Country profile for Zambia. [<https://www.who.int/goe/publications/atlas/2015/zmb.pdf?ua=1>]. Accessed on 1 October 2020.
- [2] ZNPHI. [<http://znphi.co.zm/surveillance-and-disease-intelligence.html>]. Accessed 1 October 2020.
- [3] Ministry of Health. [[www.moh.gov.zm](http://www.moh.gov.zm)]. Accessed 1 October 2020.
- [4] University Teaching Hospital. [<http://www.uth.gov.zm/>]. Accessed 1 October 2020.
- [5] Centre for Infectious Disease Research in Zambia (CIDRZ). [<http://www.cidrz.org/>]. Accessed 1 October 2020.
- [6] PATH (Program for Appropriate Technology in Health), Zambia. [<https://www.path.org/where-we-work/zambia/>]. Accessed 1 October 2020.
- [7] World Health Organisation (WHO). 2017. 'Joint External Evaluation of IHR Core capacities of the Republic of Zambia Mission report, 7-11 August 2017'. [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2017.50/en/>]. Accessed 1 October 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 no publicly available evidence of established mechanisms at the relevant ministries responsible for animal, human and wildlife surveillance to share data. The 2017 Joint External Evaluation (JEE) report for the Republic of Zambia, completed in August 2017 states that " Although guidelines and systems existed in some areas, these were not shared with the relevant stakeholders and dialogue between the different sectors was sub-optimal." Areas needing strengthening included "multisectoral coordination to enhance information sharing among stakeholders involved in Emergency Response; The establishment of protocols and Standard Operating Procedures (SOPs) between the various entities including health, defence, security, law enforcement and international organisations in Public Health and Security including the National IHR Focal Point (NFP)." [1] The web pages of the Ministries of Health, Agriculture and Environmental protection, and the Zambia National Public Health Institute (ZNPHI), do not include any evidence of a surveillance data-sharing mechanism across sectors. [2,3,4,5,6] There is no publicly available World Organisation for Animal Health (OIE) Performance of Veterinary Services (PVS) Gap Analysis report for Zambia [7] The national laboratory system has no online presence.

- [1] World Health Organisation (WHO). 2017. 'Joint External Evaluation of IHR Core capacities of the Republic of Zambia Mission report, 7-11 August 2017'. [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2017.50/en/>]. Accessed 1 October 2020.
- [2] Ministry of Health. [[www.moh.gov.zm](http://www.moh.gov.zm)]. Accessed 1 October 2020.
- [3] Ministry of Agriculture [[www.agriculture.gov.zm](http://www.agriculture.gov.zm)]. Accessed 1 October 2020.
- [4] Ministry of Water Development, Sanitation and Environmental Protection. [<https://www.mwdsep.gov.zm/>]. Accessed 1 October 2020.
- [5] Zambia National Public Health Institute (ZNPHI). Surveillance and Disease Intelligence. [<http://znphi.co.zm/surveillance->

and-disease-intelligence.html]. Accessed 1 October 2020.

[6] World Organization for Animal Health (OIE). 20 January 2020. PVS Gap Analysis reports.

[<http://www.oie.int/solidarity/pvs-gap-analysis/status-of-missions/>]. Accessed 1 October 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 no publicly available evidence that Zambia makes de-identified health surveillance data on disease outbreaks publicly available via reports on government websites.

The Ministry of Health web site posts details, based on surveillance data, under 'Press Releases' and 'Reports' but these do not constitute regular reports. [1] The Zambia National Public Health Institute (ZNPHI) reports that Zambia has fully embraced developing healthcare technology. Zambia, along with other countries, has adapted District Health Information System (DHIS 2) and Smart Care, which houses other systems like IDSR. [2] The Joint External Evaluation (JEE) report for the Republic of Zambia, completed in August 2017, however states "the Integrated Disease, Surveillance & Response (IDSR) module is on the Country's Digital Health Information System (DHIS2) platform but it is yet to be activated." [3] The national laboratory system has no online presence. There are no other media reports on de-identified health surveillance data.

[1] Ministry of Health - Media, Press Releases. 15 January 2017. [[http://www.moh.gov.zm/?wpfb\\_dl=92](http://www.moh.gov.zm/?wpfb_dl=92)]. Accessed 1 October 2020.

[2] Zambia National Public Health Institute (ZNPHI). July 2018. 'ZNPHI trains District Surveillance Officers on electronic Integrated Disease Surveillance and Response (e-IDSR)'. [<http://znphi.co.zm/thehealthpress/znphi-trains-district-surveillance-officers-on-electronic-integrated-disease-surveillance-and-response-e-idsr/>]. Accessed 1 October 2020.

[3] World Health Organisation (WHO). 2017. 'Joint External Evaluation of IHR Core capacities of the Republic of Zambia Mission report, 7-11 August 2017'. [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2017.50/en/>]. Accessed 1 October 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**

Zambia does make de-identified health surveillance data on COVID-19 publicly available via reports (or other format) on government websites (such as the Ministry of Health, Ministry of Agriculture, or similar). The Ministry of Health has a COVID-19 Dashboard with national figures, updated daily, for the pandemic. [1]

[1] Ministry of Health. 'Zambia COVID-19 Dashboard'. [[www.moh.gov.zm](http://www.moh.gov.zm)]. Accessed 1 October 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: 0**

There is no publicly available evidence that laws or guidelines on confidentiality of health information, such as that generated through health surveillance activities, exist. None of the 2017 Joint External Evaluation (JEE) report for the Republic of Zambia, completed in August 2017 or the web pages the Ministry of Health or Zambia National Public Health Institute (ZNPHI) include information on health information confidentiality rules. [1,2,3] The national laboratory system has no online presence. In June 2018 the Cabinet "approved, in principle, the introduction of the Data Protection (Repeal) Bill, 2018, in the next sitting of Parliament. The aim of the Bill is to repeal and replace the Electronic Communications and Transactions (ECT) Act, No. 21 of 2009." [4] The Bill has, as one of three objectives, "To prevent unlawful use, collection, processing, transmission and storage of personal information of identifiable persons." It contains a Section 16 which states "Genetic data, biometric data and health data: The processing of genetic, biometric and health data if processed for what it reveals or contains, is prohibited unless the data subject has given their consent in writing". [5] An April 2020 article on Dataguidance states that "the Bill is still in draft form and is yet to be enacted, with no exact date has been fixed for its enactment." [6]

[1] World Health Organisation (WHO). 2017. 'Joint External Evaluation of IHR Core capacities of the Republic of Zambia Mission report, 7-11 August 2017'. [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2017.50/en/>]. Accessed 1 October 2020.

[2] Ministry of Health. [[www.moh.gov.zm/](http://www.moh.gov.zm/)]. Accessed 1 October 2020.

[3] Zambia National Public Health Institute (ZNPHI). [<http://znphi.co.zm/surveillance-and-disease-intelligence.html>]. Accessed 1 October 2020.

[4] Zambia Daily Mail. 9 June 2018. [<http://www.daily-mail.co.zm/data-protection-bill-ready-for-enactment/>]. Accessed 1 October 2020.

[5] International Telecommunication Unit (ITU).

[[https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=4&ved=2ahUKEwjP5li5\\_Z7fAhWDSHUIHRPZBMEQFJA\\_DegQIChAC&url=https%3A%2F%2Fwww.itu.int%2Fen%2FITU-D%2FProjects%2FITU-EC-ACP%2FHIPSSA%2FDocuments%2Fin-country%2520support%2520documents%2FZambia\\_DATA%2520PROTECTION%2520BILL.pptx&usg=AOvVaw2EzmZ17iqUIHbTvWUv8ODp](https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=4&ved=2ahUKEwjP5li5_Z7fAhWDSHUIHRPZBMEQFJA_DegQIChAC&url=https%3A%2F%2Fwww.itu.int%2Fen%2FITU-D%2FProjects%2FITU-EC-ACP%2FHIPSSA%2FDocuments%2Fin-country%2520support%2520documents%2FZambia_DATA%2520PROTECTION%2520BILL.pptx&usg=AOvVaw2EzmZ17iqUIHbTvWUv8ODp)]. Accessed 1 October 2020.

[6] Dataguidance. April 2020. Zambia - Data Protection Overview. [<https://www.dataguidance.com/notes/zambia-data-protection-overview#:~:text=The%20Zambian%20Cabinet%20approved%20the,been%20fixed%20for%20its%20enactment.>] Accessed 1 October 2020.

### 2.4.4b

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

Yes = 1 , No = 0

**Current Year Score: 0**

There is no publicly available evidence that Zambia has laws or guidelines on confidentiality of health information, such as that generated through health surveillance activities, nor does it have a cybersecurity law. None of the 2017 Joint External

Evaluation (JEE) report for the Republic of Zambia, completed in August 2017 or the web pages the Ministry of Health or Zambia National Public Health Institute (ZNPHI) include information on health information confidentiality rules. [1,2,3] The national laboratory system has no online presence. In June 2018 the Cabinet "approved, in principle, the introduction of the Data Protection (Repeal) Bill, 2018, in the next sitting of Parliament. The aim of the Bill is to repeal and replace the Electronic Communications and Transactions (ECT) Act, No. 21 of 2009." [4] The Bill has, as one of three objectives, "To prevent unlawful use, collection, processing, transmission and storage of personal information of identifiable persons." It contains a Section 16 which states " Genetic data, biometric data and health data : The processing of genetic, biometric and health data if processed for what it reveals or contains, is prohibited unless the data subject has given their consent in writing". There is no mention of cyber-attack or ransomware. [5] An April 2020 article on Dataguidance states that "the Bill is still in draft form and is yet to be enacted, with no exact date has been fixed for its enactment." [6]

[1] World Health Organisation (WHO). 2017. 'Joint External Evaluation of IHR Core capacities of the Republic of Zambia Mission report, 7-11 August 2017'. [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2017.50/en/>]. Accessed 18 December 2018.

[2] Ministry of Health. [[www.moh.gov.zm](http://www.moh.gov.zm)]. Accessed 18 December 2018.

[3] Zambia National Public Health Institute (ZNPHI). [<http://znphi.co.zm/surveillance-and-disease-intelligence.html>]. Accessed 18 December 2018.

[4] Zambia Daily Mail. 9 June 2018. [<http://www.daily-mail.co.zm/data-protection-bill-ready-for-enactment/>]. Accessed 18 December 2018.

[5] International Telecommunication Unit (ITU).

[[https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=4&ved=2ahUKEwjP5li5\\_Z7fAhWDSUIHRPZBMEQFjADegQlChAC&url=https%3A%2F%2Fwww.itu.int%2Fen%2FITU-D%2FProjects%2FITU-EC-ACP%2FHIPSSA%2FDocuments%2FIn-country%2520support%2520documents%2FZambia\\_DATA%2520PROTECTION%2520BILL.pptx&usg=AOvVaw2EzmZ17iqUIHbTvWUv8ODp](https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=4&ved=2ahUKEwjP5li5_Z7fAhWDSUIHRPZBMEQFjADegQlChAC&url=https%3A%2F%2Fwww.itu.int%2Fen%2FITU-D%2FProjects%2FITU-EC-ACP%2FHIPSSA%2FDocuments%2FIn-country%2520support%2520documents%2FZambia_DATA%2520PROTECTION%2520BILL.pptx&usg=AOvVaw2EzmZ17iqUIHbTvWUv8ODp)]. Accessed 18 December 2018.

[6] Dataguidance. April 2020. Zambia - Data Protection Overview. [<https://www.dataguidance.com/notes/zambia-data-protection-overview#:~:text=The%20Zambian%20Cabinet%20approved%20the,been%20fixed%20for%20its%20enactment.>] Accessed 1 October 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, Yes, commitments have been made to share data only for one disease = 1, No = 0

**Current Year Score: 0**

There is insufficient publicly available evidence that the government has made a commitment via a cooperative agreement to share surveillance data during a public health emergency with other countries in the region.

A Zambia National Public Health Institute (ZNPHI) News item, dated 5 February 2020, states that in 2020 Zambia enrolled in Global Antimicrobial Surveillance System (GLASS). The World Health Organisation (WHO) Country Representative for Zambia said "We are happy that Zambia has taken a step to develop a one health data management system that will make it even easier to submit AMR data to GLASS." GLASS provides a standardized approach to the collection, analysis, and sharing of AMR data, which includes epidemiological, clinical, and microbiological data and, since 2019, includes data on antimicrobial consumption. There is, however, no specific mention that this system will be used during an active public health emergency.

[1]

A Zambia National Public Health Institute (ZNPHI) article has details of a Southern Africa cross-border public health emergency management workshop, organised by Africa CDC in October 2018, which brought together "public health representatives from the 16-member states of the Southern Africa Development Community (SADC) to deliberate on the various public health emergencies and the appropriate response plans." The article also states that Africa CDC "serves as a platform for Member States to share knowledge, build capacity, and provide technical assistance to each other." There is no specific mention of surveillance data sharing. [2]

The 2017 Joint External Evaluation (JEE) report for the Republic of Zambia, completed in August 2017, states that there is "an arrangement between DRC and Zambia to exchange information on public health emergencies for the prevention and control of Public Health Emergencies of International Concern (PHEICs)." Also included in the report is that the NEPPC&MC (National Epidemic Preparedness and Control and Management Committee), which addresses IHR requirements on surveillance and response for public health emergencies of national and international concern, participated in the response to the cholera outbreak in 2016 and 2017. It does add, however that "Formal agreements with neighbouring countries on public health emergencies are still inadequate for collaborative approach for disease prevention and control across the region." It recommends: relevant agreements regarding public health emergencies with neighbouring countries; document and finalize agreements, protocols, or MOUs with neighbouring countries regarding public health emergencies. But again, there is no specific mention of surveillance data sharing. [3]

There is no further information in the October 2020 COVID-19 Environmental and Social Commitment Plan (ESCP) or on any of the web pages of the Ministry of Health, University Teaching Hospital (UTH) or WHO- Emergencies preparedness, response, have information on surveillance data agreements. [4,5,6,7] The national laboratory system has no online presence.

[1] Zambia National Public Health Institute (ZNPHI) News. 5 February 2020. 'One Health Surveillance Platform for Antimicrobial Resistance launched'. [<http://znphi.co.zm/news/one-health-surveillance-platform-for-antimicrobial-resistance-launched-in-zambia/>]. Accessed 1 October 2020.

[2] Zambia National Public Health Institute. October 2018. 'Southern Africa cross-border public health emergency management workshop'. [<http://znphi.co.zm/news/southern-africa-cross-border-public-health-emergency-management-workshop/>]. Accessed 24 October 2020.

[3] World Health Organisation (WHO). 2017. 'Joint External Evaluation of IHR Core capacities of the Republic of Zambia Mission report, 7-11 August 2017'. [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2017.50/en/>]. Accessed 24 October 2020.

[4] COVID-19 Emergency Response and Health Systems Preparedness Project. Environmental and Social Commitment Plan (ESCP). 8 October 2020. [[https://www.moh.gov.zm/?wpfb\\_dl=158](https://www.moh.gov.zm/?wpfb_dl=158)]. Accessed 8 April 2021.

[5] Ministry of Health. [[www.moh.gov.zm](http://www.moh.gov.zm)]. Accessed 24 October 2020.

[6] University Teaching Hospital. [<http://www.uth.gov.zm/>]. Accessed 24 October 2020.

[7] WHO. Emergencies preparedness, response. [<http://www.who.int/csr/en/>]. Accessed 24 October 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: 0**

There is no publicly available evidence of 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. No information on this could be found on the websites of the Ministry of Health or the Zambia National Public Health Institute (ZNPHI). [1,2] None of ZNPHI's 'Zambia's response to COVID-19', the 2017-2027 National Action Plan or the National Health Strategic Plan 2017-2021 had evidence of such support. [3,4,5] The national laboratory system has no online presence.

[1] Ministry of Health. [www.moh.gov.zm]. Accessed 1 October 2020.

[2] Zambia National Public Health Institute (ZNPHI). [http://znphi.co.zm/]. Accessed 1 October 2020.

[3] Zambia National Public Health Institute, Ministry of Health. 16 April 2020. 'Zambia's response to COVID-19'.

[https://www.reactgroup.org/wp-content/uploads/2020/04/Session-5d-Ms.-Otridah-Kapona-Zambia\_-COVID-19\_16.04.20-.pdf]. Accessed 1 October 2020.

[4] World Health Organization (WHO) Publications. 2017. 'Multi-sectoral National Action Plan on Antimicrobial Resistance 2017-2027'. [https://afro.who.int/sites/default/files/2018-08/ZNPHI%20Document.pdf]. Accessed 1 October 2020.

[5] Zambia National Health Strategic Plan 2017-2021. [https://www.medbox.org/countries/zambia-national-health-strategic-plan-2017-2021/preview]. Accessed 1 October 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 no publicly available evidence that Zambia provides 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. No information on wraparound services could be found on the Ministry of Health website or the Zambia National Public Health Institute (ZNPHI). [1,2] None of ZNPHI's 'Zambia's response to COVID-19', the 2017-2027 National Action Plan or the National Health Strategic Plan 2017-2021 had evidence of such services. [3,4,5] The national laboratory system has no online presence.

[1] Ministry of Health. [www.moh.gov.zm]. Accessed 1 October 2020.

[2] Zambia National Public Health Institute (ZNPHI). [http://znphi.co.zm/]. Accessed 1 October 2020.

[3] Zambia National Public Health Institute, Ministry of Health. 16 April 2020. 'Zambia's response to COVID-19'.



[[https://www.reactgroup.org/wp-content/uploads/2020/04/Session-5d-Ms.-Otridah-Kapona-Zambia\\_-COVID-19\\_16.04.20-.pdf](https://www.reactgroup.org/wp-content/uploads/2020/04/Session-5d-Ms.-Otridah-Kapona-Zambia_-COVID-19_16.04.20-.pdf)]. Accessed 1 October 2020.

[4] World Health Organization (WHO) Publications. 2017. 'Multi-sectoral National Action Plan on Antimicrobial Resistance 2017-2027'. [<https://afro.who.int/sites/default/files/2018-08/ZNPHI%20Document.pdf>]. Accessed 1 October 2020.

[5] Zambia National Health Strategic Plan 2017-2021. [<https://www.medbox.org/countries/zambia-national-health-strategic-plan-2017-2021/preview>]. Accessed 1 October 2020.

### 2.5.1c

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

Yes = 1 , No = 0

**Current Year Score: 0**

There is no publicly available evidence that Zambia makes 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). No information on contact tracing efforts could be found on the Ministry of Health website or the Zambia National Public Health Institute (ZNPHI). [1,2] None of ZNPHI's 'Zambia's response to COVID-19', the 2017-2027 National Action Plan or the National Health Strategic Plan 2017-2021 had evidence of such efforts. [3,4,5] The national laboratory system has no online presence.

[1] Ministry of Health. [[www.moh.gov.zm](http://www.moh.gov.zm)]. Accessed 1 October 2020.

[2] Zambia National Public Health Institute (ZNPHI). [<http://znphi.co.zm/>]. Accessed 1 October 2020.

[3] Zambia National Public Health Institute, Ministry of Health. 16 April 2020. 'Zambia's response to COVID-19'. [[https://www.reactgroup.org/wp-content/uploads/2020/04/Session-5d-Ms.-Otridah-Kapona-Zambia\\_-COVID-19\\_16.04.20-.pdf](https://www.reactgroup.org/wp-content/uploads/2020/04/Session-5d-Ms.-Otridah-Kapona-Zambia_-COVID-19_16.04.20-.pdf)]. Accessed 1 October 2020.

[4] World Health Organization (WHO) Publications. 2017. 'Multi-sectoral National Action Plan on Antimicrobial Resistance 2017-2027'. [<https://afro.who.int/sites/default/files/2018-08/ZNPHI%20Document.pdf>]. Accessed 1 October 2020.

[5] Zambia National Health Strategic Plan 2017-2021. [<https://www.medbox.org/countries/zambia-national-health-strategic-plan-2017-2021/preview>]. Accessed 1 October 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: 0**

There is no publicly available evidence of a joint plan or cooperative agreement between the public health system and border control authorities to monitor suspected and potential cases for international travellers in the event of an active public health emergency, or to prepare for future public health emergencies. No information of such an agreement could be found on the websites of the Ministry of Health, the Zambia National Public Health Institute (ZNPHI), the ZNPHI's 'Zambia's response to

COVID-19' or the Department of immigration. [1,2,3,4] The national laboratory system has no online presence.

[1] Ministry of Health. [www.moh.gov.zm]. Accessed 1 October 2020.

[2] Zambia National Public Health Institute (ZNPHI). [http://znphi.co.zm/]. Accessed 1 October 2020.

[3] Zambia National Public Health Institute, Ministry of Health. 16 April 2020. 'Zambia's response to COVID-19'. [https://www.reactgroup.org/wp-content/uploads/2020/04/Session-5d-Ms.-Otridah-Kapona-Zambia\_-COVID-19\_16.04.20.pdf]. Accessed 1 October 2020.

[4] Department of immigration [https://www.zambiaimmigration.gov.zm/]. Accessed 1 October 2020.

## 2.6 EPIDEMIOLOGY WORKFORCE

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

#### 2.6.1a

Does the country meet one of the following criteria?

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

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

**Current Year Score: 1**

There is evidence that Zambia has an applied epidemiology training program available in country, and resources are provided by the government to send citizens to other countries to participate in applied epidemiology training programs. The Training Programs in Epidemiology and Public Health Interventions (TEPHINET) website has details of the Zambia Field Epidemiology Training Program (ZFETP), a two-year applied epidemiology training program. [1] The African Field Epidemiology Network (AFENET) website states that "two residents from the Zambia FETP were among trainees for manuscript writing course held in Uganda in July 2018; one resident was selected for the grant writing workshop held in Nigeria in September 2018" [2] The 2017 Joint External Evaluation (JEE) report for the Republic of Zambia, completed in August 2017, states that there have been challenges, including limited number of people trained in Integrated Disease surveillance & Response (IDSR). It adds, included in areas that need strengthening "It will take another 5 to 10 years of the FETP running to meet the optimal target of 80 field epidemiologists trained in Zambia (1 per 200 000 inhabitants)." and "Although some financial contribution has been secured from the national budget, additional resources are needed. It is expected that the FETP will be partially funded by the UK from 2018 to 2023." [3]

[1] TEPHINET. Not dated. 'Zambia Field Epidemiology Training Program (ZFETP)'. [https://www.tephinet.org/training-programs/zambia-field-epidemiology-training-program]. Accessed 2 October 2020.

[2] African Field Epidemiology Network (AFENET). 2020. Zambia Field Epidemiology Training Program.

[http://afenet.net/index.php/countries/zambia#:~:text=Cohorts-Background,priorities%20and%20public%20health%20needs.]. Accessed 2 October 2020.

[3] World Health Organisation (WHO). 2017. 'Joint External Evaluation of IHR Core capacities of the Republic of Zambia Mission report, 7-11 August 2017'. [http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2017.50/en/]. Accessed 2 October 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 evidence that the field epidemiology training programs offered are explicitly inclusive of animal health professionals. The TEPHINET website states "ZFETP allows holders of health-related undergraduate degrees (medical doctors, nurses, laboratory scientists, environmental health officers, and veterinarians) to develop expertise in applied epidemiology and public health laboratory practice with an emphasis on solving issues of public health concern." [1]

[1] Training Programs in Epidemiology and Public Health Interventions Network (TEPHINET). 'Zambia field epidemiology training program'. [<https://www.tephinet.org/training-programs/zambia-field-epidemiology-training-program>]. Accessed 2 October 2020.

## 2.6.2 Epidemiology workforce capacity

### 2.6.2a

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

Yes = 1 , No = 0

Current Year Score: 0

2020

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

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

### 3.1 EMERGENCY PREPAREDNESS AND RESPONSE PLANNING

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

##### 3.1.1a

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

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

Current Year Score: 1

There is insufficient evidence that Zambia has an overarching national public health emergency response plan in place which addresses planning for multiple communicable diseases with pandemic potential, although there is evidence of at least two disease-specific plans. Disease specific plans have been made for COVID-19 and Ebola. [1,2] The National Disaster Management Policy of July 2015 outlines the main risks and stakeholders in response for disasters. The document mentions both pandemics and epidemics (which it defines as diseases such as cholera, dysentery and HIV/AIDS), but no specific plan is offered to deal with these diseases. [3] The National Health Strategic Plan (NHSP) 2017-2021 indicates that some progress has been made toward developing this plan, stating that "there are established structures for disease outbreak investigation and response at the national, province, and district levels" and epidemic preparedness and response committees exist at the same levels. It also states that "response capacity is being built for emerging and re-emerging diseases causing epidemics, such as Ebola and Zika." [4] The Joint External Evaluation (JEE) report for the Republic of Zambia, completed in August 2017, highlights the Disaster Management Act as the central document for multisector disaster and emergency response, and that disaster management is coordinated through the Vice President's office. The report also states that "A multi-hazard national public health emergency preparedness and response plan to meet IHR core capacity requirements has been drafted (at technical level) through the ZNPHI [Zambia National Public Health Institute] and guides preparedness efforts in the country, although it still needs to be finalized and approved by the political leadership." [5] However, there is no indication via the Zambia National Public Health Institute, the Ministry of Health or the Office of the Vice President that this plan has been released. [6,7,8]

[1] Zambia National Public Health Institute, Ministry of Health. 16 April 2020. 'Zambia's response to COVID-19'.

[[https://www.reactgroup.org/wp-content/uploads/2020/04/Session-5d-Ms.-Otridah-Kapona-Zambia\\_-COVID-19\\_16.04.20.pdf](https://www.reactgroup.org/wp-content/uploads/2020/04/Session-5d-Ms.-Otridah-Kapona-Zambia_-COVID-19_16.04.20.pdf)]. Accessed 2 October 2020.

[2] Government of Zambia. 2015. "Zambia Ebola Preparedness and Response Plan - 2015."

[<http://www.moh.gov.zm/docs/reports/Final%20Zambia%20Ebola%20Preparedness%20and%20Response%20Plan%202014.pdf>]. Accessed 2 October 2020.

[3] National Disaster Management Policy. July 2015.

[[https://www.preventionweb.net/files/47475\\_zambiadmpolicy2015.pdf](https://www.preventionweb.net/files/47475_zambiadmpolicy2015.pdf)]. Accessed 2 October 2020.

[4] Zambia National Health Strategic Plan (NHSP) 2017-2021. [<https://www.medbox.org/countries/zambia-national-health-strategic-plan-2017-2021/preview>]. Accessed 2 October 2020.

[5] World Health Organisation (WHO). 2017. 'Joint External Evaluation of IHR Core capacities of the Republic of Zambia Mission report, 7-11 August 2017'. [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2017.50/en/>]. Accessed 2 October 2020.

[6] Zambia National Public Health Institute. [<http://znphi.co.zm/news>]. Accessed 20 February 2019.

[7] Ministry of Health. [[www.moh.gov.zm](http://www.moh.gov.zm)]. Accessed

[5] Ministry of Health. [[www.moh.gov.zm](http://www.moh.gov.zm)]. Accessed 2 October 2020.

[8] Zambia Office of the Vice President. [<http://www.ovp.gov.zm/>]. Accessed 2 October 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**

There is insufficient evidence that Zambia has an overarching national public health emergency response plan in place for multiple communicable diseases with pandemic potential. The National Disaster Management Policy of July 2015 outlines the main risks and stakeholders in response for disasters. The document mentions both pandemics and epidemics (which it defines as diseases such as cholera, dysentery and HIV/AIDS), but no specific plan is offered to deal with these diseases. [1] The National Health Strategic Plan (NHSP) 2017-2021 indicates that some progress has been made toward developing this

plan, stating that that "there are established structures for disease outbreak investigation and response at the national, province, and district levels" and epidemic preparedness and response committees exist at the same levels . It also states that "response capacity is being built for emerging and re-emerging diseases causing epidemics, such as Ebola and Zika." [2] The Joint External Evaluation (JEE) report for the Republic of Zambia, completed in August 2017, highlights the Disaster Management Act as the central document for multisector disaster and emergency response, and that disaster management is coordinated through the Vice President's office. The report also states that "A multi-hazard national public health emergency preparedness and response plan to meet IHR core capacity requirements has been drafted (at technical level) through the ZNPHI [Zambia National Public Health Institute] and guides preparedness efforts in the country, although it still needs to be finalized and approved by the political leadership." [3] However, there is no indication via the Zambia National Public Health Institute, the Ministry of Health or the Office of the Vice President that this plan has been released. [4,5,6]

[1] National Disaster Management Policy. July 2015.

[https://www.preventionweb.net/files/47475\_zambiadmpolicy2015.pdf]. Accessed 2 October 2020.

[2] Zambia National Health Strategic Plan (NHSP) 2017-2021. [https://www.medbox.org/countries/zambia-national-health-strategic-plan-2017-2021/preview]. Accessed 2 October 2020.

[3] World Health Organisation (WHO). 2017. 'Joint External Evaluation of IHR Core capacities of the Republic of Zambia Mission report, 7-11 August 2017'. [http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2017.50/en/]. Accessed 2 October 2020.

[4] Zambia National Public Health Institute. [http://znphi.co.zm/news]. Accessed 20 February 2019.

[5] Ministry of Health. [www.moh.gov.zm]. Accessed

[5] Ministry of Health. [www.moh.gov.zm]. Accessed 2 October 2020.

[6] Zambia Office of the Vice President. [http://www.ovp.gov.zm/]. Accessed 2 October 2020.

### 3.1.1c

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

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

**Current Year Score: 0**

There is insufficient evidence that Zambia has an overarching national public health emergency response plan in place for multiple communicable diseases with pandemic potential. The National Disaster Management Policy of July 2015 outlines the main risks and stakeholders in response for disasters. The document mentions both pandemics and epidemics (which it defines as diseases such as cholera, dysentery and HIV/AIDS), but no specific plan is offered to deal with these diseases. [1] The National Health Strategic Plan (NHSP) 2017-2021 indicates that some progress has been made toward developing this plan, stating that that "there are established structures for disease outbreak investigation and response at the national, province, and district levels" and epidemic preparedness and response committees exist at the same levels . It also states that "response capacity is being built for emerging and re-emerging diseases causing epidemics, such as Ebola and Zika." [2] The Joint External Evaluation (JEE) report for the Republic of Zambia, completed in August 2017, highlights the Disaster Management Act as the central document for multisector disaster and emergency response, and that disaster management is coordinated through the Vice President's office. The report also states that "A multi-hazard national public health emergency preparedness and response plan to meet IHR core capacity requirements has been drafted (at technical level) through the ZNPHI [Zambia National Public Health Institute] and guides preparedness efforts in the country, although it still needs to be finalized and approved by the political leadership." [3] However, there is no indication via the Zambia National Public Health Institute, the Ministry of Health or the Office of the Vice President that this plan has been released. [4,5,6]

[1] National Disaster Management Policy. July 2015.

[https://www.preventionweb.net/files/47475\_zambiadmpolicy2015.pdf]. Accessed 2 October 2020.

[2] Zambia National Health Strategic Plan (NHSP) 2017-2021. [<https://www.medbox.org/countries/zambia-national-health-strategic-plan-2017-2021/preview>]. Accessed 2 October 2020.

[3] World Health Organisation (WHO). 2017. 'Joint External Evaluation of IHR Core capacities of the Republic of Zambia Mission report, 7-11 August 2017'. [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2017.50/en/>]. Accessed 2 October 2020.

[4] Zambia National Public Health Institute. [<http://znphi.co.zm/news>]. Accessed 20 February 2019.

[5] Ministry of Health. [[www.moh.gov.zm](http://www.moh.gov.zm)]. Accessed

[5] Ministry of Health. [[www.moh.gov.zm](http://www.moh.gov.zm)]. Accessed 2 October 2020.

[6] Zambia Office of the Vice President. [<http://www.ovp.gov.zm/>]. Accessed 2 October 2020.

### 3.1.1d

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

Yes = 1 , No = 0

**Current Year Score: 0**

2020

WHO Strategic Partnership for IHR and Health Security (SPH)

## 3.1.2 Private sector involvement in response planning

### 3.1.2a

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

Yes = 1 , No = 0

**Current Year Score: 0**

There is no publicly available evidence that Zambia has a specific mechanism for engaging with the private sector to assist with outbreak emergency preparedness and response. The 2017 Joint External Evaluation for Zambia mentions that the country has been working on a multiple disease plan, but there is insufficient evidence that this plan is yet in place. [1] Neither is there evidence that this plan is in place, or of mechanisms to collaborate with the private sector for emergency response outside of the plan, in the websites of the Ministry of Health, the Zambia National Public Health Institute or the Office of the Vice President (the lead for the national disaster management policy).[2,3,4]. There is evidence of at least two disease-specific plans. However, neither the Zambia Ebola Preparedness and Response Plan or "Zambia's response to COVID-19" make mention of private sector engagement mechanisms. [5,6] No evidence of such mechanisms could be found in the Zambia National Health Strategic Plan 2017-2021. [7] The WHO Country Cooperation Strategy 2017-2021 makes a few references to Public-Private Partnerships (PPPs), but there is no specific mention of outbreak emergency assistance. [8]

[1] World Health Organisation (WHO). 2017. 'Joint External Evaluation of IHR Core capacities of the Republic of Zambia Mission report, 7-11 August 2017'. [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2017.50/en/>]. Accessed 2 October 2020.

[2] Zambia National Public Health Institute. [<http://znphi.co.zm/news>]. Accessed 2 October 2020.

[3] Ministry of Health. [[www.moh.gov.zm](http://www.moh.gov.zm)]. Accessed 18 February 2019.

[4] Zambia Office of the Vice President. [<http://www.ovp.gov.zm/>]. Accessed 2 October 2020.

- [5] Government of Zambia. 2015. "Zambia Ebola Preparedness and Response Plan - 2015." [http://www.moh.gov.zm/docs/reports/Final%20Zambia%20Ebola%20Preparedness%20and%20Response%20Plan%202014.pdf]. Accessed 2 October 2020.
- [6] Zambia National Public Health Institute, Ministry of Health. 16 April 2020. 'Zambia's response to COVID-19'. [https://www.reactgroup.org/wp-content/uploads/2020/04/Session-5d-Ms.-Otridah-Kapona-Zambia\_-COVID-19\_16.04.20.pdf]. Accessed 2 October 2020.
- [7] Zambia National Health Strategic Plan 2017-2021. [https://www.medbox.org/countries/zambia-national-health-strategic-plan-2017-2021/preview]. Accessed 2 October 2020.
- [8] WHO Country Cooperation Strategy 2017-2021. [https://www.afro.who.int/sites/default/files/2017-10/WHO%20ZAMBIA%20CCS%202017\_2021%20printed.pdf]. Accessed 2 October 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 of a policy, plan and/or guidelines in place to implement non-pharmaceutical interventions (NPIs) during an epidemic or pandemic, but they are specific to one disease.

Although NPIs are not specifically mentioned in the October 2020 Environmental and Social Commitment Plan (ESCP) for Covid-19, material measures and actions include "Prepare, publicly consult, disclose, adopt, and implement Infection Control and Waste Management Plans, Environmental and Social Management Plans and/or other instruments, if required for the respective Project activities based on the screening and assessment process, in accordance with the Environmental and Social Standards (ESSs), the Environmental and Social Management Framework (ESMF), the Environment Health and Safety Groups (EHSGs) and other relevant Good International Industry Practice (GIIP) including relevant WHO Guidelines related to COVID-19, in a manner acceptable to the Association". [1] There is also COVID-19 specific NPI advice on the Ministry of Health website, including maintaining social distancing and closure of schools. [5]

[1] COVID-19 Emergency Response and Health Systems Preparedness Project. Environmental and Social Commitment Plan (ESCP). 8 October 2020. [https://www.moh.gov.zm/?wpfb\_dl=158]. Accessed 9 April 2021.

[2] Ministry of Health. [www.moh.gov.zm]. Accessed 2 October 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, in the past year, the country has activated their national emergency response plan for an infectious disease outbreak, but not that the country has completed a national-level biological threat-focused exercise (either with WHO or separately).

Zambia has not, at time of writing, declared a national emergency for COVID-19. An Effective States and Inclusive Development (ESID) Research Centre article, dated 28 April 2020, states that there have been calls to declare a state of emergency or state of disaster, but these proposals have been ignored. [1] Although, according to an Africanews article, dated 26 March 2020, the government "is taking measures to prevent, detect and to ensure that the risk of the spread of COVID-19 is averted." and the Zambia National Public Health Institute (ZNPHI) has produced a plan titled 'Zambia's response to COVID-19', [3] .

The Joint External Evaluation (JEE) report for the Republic of Zambia, completed in August 2017, highlights the Disaster Management Act as the central document for multisector disaster and emergency response, and that disaster management is coordinated through the Vice President's office. The report also states that "A multi-hazard national public health emergency preparedness and response plan to meet IHR core capacity requirements has been drafted (at technical level) through the ZNPHI [Zambia National Public Health Institute] and guides preparedness efforts in the country, although it still needs to be finalized and approved by the political leadership." [4] However, there is no indication via the Zambia National Public Health Institute, the Ministry of Health or the Office of the Vice President that this plan has been released. [5,6,7] There was no information on the World Health Organization (WHO) Strategic Partnership for International Health Regulations (2005) and Health Security website of any exercise conducted by Zambia. [8]

[1] Effective States and Inclusive Development (ESID) Research Centre. 28 April 2020. Zambia's response to COVID-19. [<http://www.effective-states.org/zambias-response-to-covid-19/>]. Accessed 2 October 2020.

[2] Africanews. 26 March 2020. Coronavirus - Zambia: Government Response to the outbreak of the Coronavirus 2019 (Covid-19). [<https://www.africanews.com/2020/03/26/coronavirus-zambia-government-response-to-the-outbreak-of-the-coronavirus-2019-covid-19/>]. Accessed 2 October 2020.

[3] Zambia National Public Health Institute (ZNPHI), Ministry of Health. 16 April 2020. 'Zambia's response to COVID-19'. [[https://www.reactgroup.org/wp-content/uploads/2020/04/Session-5d-Ms.-Otridah-Kapona-Zambia\\_-COVID-19\\_16.04.20-.pdf](https://www.reactgroup.org/wp-content/uploads/2020/04/Session-5d-Ms.-Otridah-Kapona-Zambia_-COVID-19_16.04.20-.pdf)]. Accessed 2 October 2020.

[4] World Health Organisation (WHO). 2017. 'Joint External Evaluation of IHR Core capacities of the Republic of Zambia Mission report, 7-11 August 2017'. [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2017.50/en/>]. Accessed 2 October 2020.

[5] Zambia National Public Health Institute. [<http://znphi.co.zm/news>]. Accessed 20 February 2019.

[6] Ministry of Health. [[www.moh.gov.zm](http://www.moh.gov.zm)]. Accessed 2 October 2020.

[5] Ministry of Health. [[www.moh.gov.zm](http://www.moh.gov.zm)]. Accessed 2 October 2020.

[7] Zambia Office of the Vice President. [<http://www.ovp.gov.zm/>]. Accessed 2 October 2020.

[8] WHO. 2020. 'Strategic Partnership for International Health Regulations (2005) and Health Security (SPH)'. [<https://extranet.who.int/sph/simulation-exercise>]. Accessed 2 October 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: 1**

There is evidence that Zambia has undergone an exercise to identify a list of gaps and best practices through either an after action review (post emergency response) or a biological threat-focused IHR exercise with the World Health Organisation (WHO) in the past year. The WHO country profile indicates that an After-Action Report was conducted in November 2019 for Cholera. [3] However, there is no evidence that this was followed by a plan. No information could be found on the website of the Ministry of Health. [1] The 2017 Joint External Evaluation (JEE) report for the Republic of Zambia, completed in August 2017 states as recommendations: "Conduct simulation exercises to test the coordination and communication mechanism between the NFP and stakeholders including WHO, and OIE; Finalize SOPs and test the SOPs through table top exercises" and conducting of audits/evaluations for these exercises. [2] The Zambia National Public Health Institute (ZNPHI) states that "ZNPHI personnel and sub-national units participate in quarterly training in their specific response area, as well as periodic functional exercises, to test response systems, roles, and responsibilities" but there are no details of when or if any of this has occurred. [4] No further information could be found in media sources.

[1] Ministry of Health. [www.moh.gov.zm]. Accessed 2 October 2020.

[2] World Health Organisation (WHO). 2017. 'Joint External Evaluation of IHR Core capacities of the Republic of Zambia Mission report, 7-11 August 2017'. [http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2017.50/en/]. Accessed 2 October 2020.

[3] World Health Organisation (WHO). 2020. 'Strategic Partnership for International Health Regulations (2005) and Health Security (SPH) - Country profile'. [https://extranet.who.int/sph/country/242]. Accessed 2 October 2020.

[4] Zambia National Public Health Institute (ZNPHI). 'Epidemic Preparedness and Response'. [http://znphi.co.zm/preparedness-and-response.html]. Accessed 2 October 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 Zambia, in the past year, has undergone a national-level biological threat-focused exercise that has included private sector representatives. There was no information on threat-focused exercises in the World Health Organisation (WHO) website section on simulation exercises. [1] No further information could be found on the websites of Ministry of Health or the Zambia National Public Health Institute (ZNPHI). No evidence could be found on media sources.

[1] World Health Organisation (WHO). 2020. 'Strategic Partnership for International Health Regulations (2005) and Health Security (SPH)'. [https://extranet.who.int/sph/simulation-exercise]. Accessed 2 October 2020.

[2] Ministry of Health. [www.moh.gov.zm]. Accessed 2 October 2020.

[3] Zambia National Public Health Institute (ZNPHI). [<http://znphi.co.zm/>]. Accessed 2 October 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**

Zambia has a Public Health Emergency Operations Centre (PHEOC) in place. A Centres for disease control and prevention (CDC) article from August 2018 states that " Shortly after establishing the emergency operations centre, Zambia National Public Health Institute (ZNPHI) activated the Incident Management System (IMS) and utilized the PHEOC for the very first time during the complex and widespread cholera outbreak that began in October 2017". This is corroborated on the ZNPHI website [1,2] The PHEOC has been reactivated for the current COVID-19 pandemic. [3]

[1] Centres of disease control and prevention (CDC). August 2018. 'Zambia: A regional leader in NPHI development and emergency management'. [<https://blogs.cdc.gov/global/2018/08/17/zambia-a-regional-leader-in-nphi/>]. Accessed 2 October 2020.

[2] ZNPHI 2017/18 Cholera outbreak - NEPPC&MC 2 January 2018.

[[https://static1.squarespace.com/static/5007cda5c4aa2233ff320a67/t/5a549acc652deace1b6b16e5/1515494136209/ZNPHI+Cholera+Outbreak++prestrn\\_NEPPC%26MC\\_02Jan2018.pdf](https://static1.squarespace.com/static/5007cda5c4aa2233ff320a67/t/5a549acc652deace1b6b16e5/1515494136209/ZNPHI+Cholera+Outbreak++prestrn_NEPPC%26MC_02Jan2018.pdf)]. Accessed 2 October 2020.

[3] Zambia National Public Health Institute, Ministry of Health. 16 April 2020. 'Zambia's response to COVID-19'.

[[https://www.reactgroup.org/wp-content/uploads/2020/04/Session-5d-Ms.-Otridah-Kapona-Zambia\\_-COVID-19\\_16.04.20-.pdf](https://www.reactgroup.org/wp-content/uploads/2020/04/Session-5d-Ms.-Otridah-Kapona-Zambia_-COVID-19_16.04.20-.pdf)]. Accessed 2 October 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 publicly available evidence that the Public Health Emergency Operations Centre (PHEOC) is required to conduct a drill at least once per year, or that drills have been conducted annually. There is no information on the websites of the Ministry of Health, the WHO Country Profile, the UN Office for Disaster Risk Management or in the National Disaster Management Policy. [1,2,3,4] No further information was found in media sources. The PHEOC does not have an online presence. The 2017 Joint External Evaluation (JEE) report for the Republic of Zambia, completed in August 2017, states as an area that needs strengthening " Conduct air crash table-top and drill/simulation exercises periodically to test preparedness for public health events." [5]

[1] Ministry of Health. [[www.moh.gov.zm](http://www.moh.gov.zm)]. Accessed 2 October 2020.

[2] WHO. 2018. 'Strategic Partnership for International Health Regulations (2005) and Health Security (SPH) - Country profile'. [<https://extranet.who.int/sph/country/242>]. Accessed 2 October 2020.

[3] UNISDR (UN Office for Disaster Risk Management). 2018. [<https://www.unisdr.org/africa>]. Accessed 28 October 2018.

[4] National Disaster Management Policy. July 2015.

[https://www.preventionweb.net/files/47475\_zambiadmpolicy2015.pdf]. Accessed 2 October 2020.

[5] World Health Organisation (WHO). 2017. 'Joint External Evaluation of IHR Core capacities of the Republic of Zambia Mission report, 7-11 August 2017'. [http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2017.50/en/]. Accessed 2 October 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 publicly available evidence to show that the Public Health Emergency Operations Centre (PHEOC) 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. There is no information on the websites of the Ministry of Health, the WHO Country Profile, the UN Office for Disaster Risk Management or the "Response to COVID-19".

[1,2,3,4] No further information was found in media sources. The PHEOC does not have an online presence. The 2017 Joint External Evaluation (JEE) report for the Republic of Zambia, completed in August 2017 states as an area that needs strengthening " Conduct air crash table-top and drill/simulation exercises periodically to test preparedness for public health events." [5]

[1] Ministry of Health. [www.moh.gov.zm]. Accessed 2 October 2020.

[2] WHO. 2018. 'Strategic Partnership for International Health Regulations (2005) and Health Security (SPH) - Country profile'. [https://extranet.who.int/sph/country/242]. Accessed 2 October 2020.

[3] UNISDR (UN Office for Disaster Risk Management). 2018. [https://www.unisdr.org/africa]. Accessed 2 October 2020.

[4] Zambia National Public Health Institute, Ministry of Health. 16 April 2020. 'Zambia's response to COVID-19'.

[https://www.reactgroup.org/wp-content/uploads/2020/04/Session-5d-Ms.-Otridah-Kapona-Zambia\_-COVID-19\_16.04.20-.pdf]. Accessed 2 October 2020.

[5] World Health Organisation (WHO). 2017. 'Joint External Evaluation of IHR Core capacities of the Republic of Zambia Mission report, 7-11 August 2017'. [http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2017.50/en/]. Accessed 2 October 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 publicly available evidence that public health and national security authorities have either carried out an exercise to respond to a potential deliberate biological event, or that there are standard operating procedures, guidelines, MOUs or other agreements between the public health and security authorities to respond to a potential deliberate biological event such as a bioterrorism attack. There was no information on threat-focused exercises in the World Health Organisation (WHO) website section on simulation exercises. [1] The Joint External Evaluation (JEE) report for the Republic of Zambia, completed in August 2017, notes as a recommendation that Zambia "develop MOUs and SOPs between health, defence, security and law enforcement sectors at appropriate levels of government and with relevant regional and international organizations" and that "simulation exercise[s] should be collaborated among stakeholders and held regularly." The report does note that some consideration for joint response during naturally occurring pandemics is in place, stating that "during disasters, the Disaster Management Act is used to coordinate activities linking various sectors including defence, police, and other security authorities". Additionally, there is also evidence of consideration for a deliberate event, as the report notes that "the government has the National Biosafety Authority mandated to deal with all biological events which can be deliberate in nature." [2] However, there is no further evidence available via the National Biosafety Authority, as its web page primarily highlights its role overseeing genetically modified organisms "whether intended for use as a pharmaceutical, food, feed or processing, or a product of a genetically modified organism." [3] No further information on these could be found on the websites of the Ministry of Health or the Ministry of Defence. [4,5]

[1] World Health Organisation (WHO). 2020. 'Strategic Partnership for International Health Regulations (2005) and Health Security (SPH)'. [<https://extranet.who.int/sph/simulation-exercise>]. Accessed 2 October 2020.

[2] WHO. 2017. 'Joint External Evaluation of IHR Core capacities of the Republic of Zambia Mission report, 7-11 August 2017'. [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2017.50/en/>]. Accessed 2 October 2020.

[3] National Biosafety Authority. [<http://www.nbazambia.org.zm/>]. Accessed 2 October 2020.

[4] Ministry of Health. [[www.moh.gov.zm](http://www.moh.gov.zm/)]. Accessed 2 October 2020.

[5] Ministry of Defence. [[http://www.mod.gov.zm](http://www.mod.gov.zm/)]. Accessed 2 October 2020.

## 3.5 RISK COMMUNICATIONS

### 3.5.1 Public communication

#### 3.5.1b

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

Yes = 1, No = 0

**Current Year Score: 0**

There is no publicly available evidence that the strategy used to guide national public health response outlines how messages will reach populations and sectors with different communications needs. The Zambia National Public Health Institute document "Zambia's response to COVID-19" has risk communication listed as part of the contingency plan, but there is nothing that addresses different communication needs. [1] The Multi-Hazard National Disaster Management Policy (2015) does refer to risk communication, but this is specifically about early detection of and reaction to disease outbreaks. There is no mention of plans to communicate with the public. [2] The Zambia National Health Strategic Plan 2017-2021 has as goals "Develop a national multi-hazard emergency risk communication plan" And "Engage in proactive media outreach guided by

risk communication best practices" [3] No evidence of these could be found on the website of the Ministry of Health or in the Joint External Evaluation (JEE) report for the Republic of Zambia, completed in August 2017. [4,5]

- [1] Zambia National Public Health Institute, Ministry of Health. 16 April 2020. 'Zambia's response to COVID-19'. [[https://www.reactgroup.org/wp-content/uploads/2020/04/Session-5d-Ms.-Otridah-Kapona-Zambia\\_-COVID-19\\_16.04.20-.pdf](https://www.reactgroup.org/wp-content/uploads/2020/04/Session-5d-Ms.-Otridah-Kapona-Zambia_-COVID-19_16.04.20-.pdf)]. Accessed 3 October 2020.
- [2] National Disaster Management Policy. July 2015. [[https://www.preventionweb.net/files/47475\\_zambiadmpolicy2015.pdf](https://www.preventionweb.net/files/47475_zambiadmpolicy2015.pdf)]. Accessed 2 October 2020.
- [3] Zambia National Health Strategic Plan 2017-2021. [<https://www.medbox.org/countries/zambia-national-health-strategic-plan-2017-2021/preview>]. Accessed 3 October 2020.
- [4] Ministry of Health. [[www.moh.gov.zm](http://www.moh.gov.zm)]. Accessed 3 October 2020.
- [5] World Health Organisation (WHO). 2017. 'Joint External Evaluation of IHR Core capacities of the Republic of Zambia Mission report, 7-11 August 2017'. [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2017.50/en/>]. Accessed 3 October 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**

There is evidence that Zambia has in place a section, in the "Zambia's response to COVID-19" document, detailing a risk communication plan that is specifically intended for use during a public health emergency. The Zambia National Public Health Institute has published a document titled "Zambia's response to COVID-19" in which risk communication is listed as part of the contingency plan. The plan outlines the role of stakeholders, including Media cooperation, which include "Promote Community Sensitisation to Messages - using print and electronic media adverts, health education messages; Reach every district in the nation - Update population with key message an what Government is doing to avert fear; Responsible reporting - Report accurate and verified data". [1] The Zambia National Health Strategic Plan 2017-2020 has as a goal "Develop a national multi-hazard emergency risk communication plan." [2] The Joint External Evaluation (JEE) report for the Republic of Zambia, completed in August 2017 states that Zambia has a newly created Department of Health Promotion, Environment and Social Determinants which is mandated with risk communication activities. "During epidemics, this department provides daily updates regarding public health events to the media. Strengths include a Multi-Hazard National Disaster Management Policy 2015 which includes risk communication; presence of risk communication unit in each line Ministry including the Ministry of Animal and Fisheries; presence of a National Epidemic Preparedness Prevention and Control risk communication subcommittee." However, the report also recommends the "Creation of an All Hazard Public Risk Communication Plan to be shared with all sectors for effective synchronization and collaboration; Review and update TORs [Terms of reference] for the National Epidemic Preparedness and Prevention Risk Communication Sub-Committee." The communications referred to in the Disaster Management Policy are specifically about early detection of and reaction to disease outbreaks. There is no mention of plans to communicate with the public. [3,4]

- [1] Zambia National Public Health Institute, Ministry of Health. 16 April 2020. 'Zambia's response to COVID-19'. [[https://www.reactgroup.org/wp-content/uploads/2020/04/Session-5d-Ms.-Otridah-Kapona-Zambia\\_-COVID-19\\_16.04.20-.pdf](https://www.reactgroup.org/wp-content/uploads/2020/04/Session-5d-Ms.-Otridah-Kapona-Zambia_-COVID-19_16.04.20-.pdf)]. Accessed 2 October 2020.

[2] Zambia National Health Strategic Plan 2017-2021. [<https://www.medbox.org/countries/zambia-national-health-strategic-plan-2017-2021/preview>]. Accessed 2 October 2020.

[3] WHO. 2017. 'Joint External Evaluation of IHR Core capacities of the Republic of Zambia Mission report, 7-11 August 2017'. [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2017.50/en/>]. Accessed 2 October 2020.

[4] National Disaster Management Policy. July 2015.

[[https://www.preventionweb.net/files/47475\\_zambiadmpolicy2015.pdf](https://www.preventionweb.net/files/47475_zambiadmpolicy2015.pdf)]. Accessed 2 October 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**

There is no publicly available evidence that the strategy used to guide national public health response designates a specific position within the government to serve as the primary spokesperson to the public during a public health emergency. No evidence of this could be found in the Zambia National Public Health Institute 'Response to COVID-19' document, Zambia's 2017 Joint External Evaluation (JEE) report, the Zambia National Health Strategic Plan 2017-2021, Multi-Hazard National Disaster Management Policy (2015) or on the website of the Ministry of Health. [1,2,3,4,5]

[1] Zambia National Public Health Institute, Ministry of Health. 16 April 2020. 'Zambia's response to COVID-19'.

[[https://www.reactgroup.org/wp-content/uploads/2020/04/Session-5d-Ms.-Otridah-Kapona-Zambia\\_-COVID-19\\_16.04.20-.pdf](https://www.reactgroup.org/wp-content/uploads/2020/04/Session-5d-Ms.-Otridah-Kapona-Zambia_-COVID-19_16.04.20-.pdf)]. Accessed 3 October 2020.

[2] World Health Organisation (WHO). 2017. 'Joint External Evaluation of IHR Core capacities of the Republic of Zambia Mission report, 7-11 August 2017'. [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2017.50/en/>]. Accessed 3 October 2020.

[3] Zambia National Health Strategic Plan 2017-2021. [<https://www.medbox.org/countries/zambia-national-health-strategic-plan-2017-2021/preview>]. Accessed 3 October 2020.

[4] National Disaster Management Policy. July 2015.

[[https://www.preventionweb.net/files/47475\\_zambiadmpolicy2015.pdf](https://www.preventionweb.net/files/47475_zambiadmpolicy2015.pdf)]. Accessed 2 October 2020.

[5] Ministry of Health. [[www.moh.gov.zm](http://www.moh.gov.zm)]. Accessed 3 October 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**

There is insufficient evidence that, in the past year, the public health system has actively shared messages via online media platforms (eg social media, website) to inform the public about ongoing public health concerns and/or dispel rumours,

misinformation or disinformation. Although the Ministry of Health has ministerial statements, press releases and reports on their website menu, a COVID-19 'Chatbot' pop up and a COVID-19 Dashboard, these are all event specific. [1] The Ministry does also have both Facebook and Twitter pages, but there is insufficient evidence that these are used regularly in non-emergency conditions. [2,3]

[1] Ministry of Health. [www.moh.gov.zm]. Accessed 3 October 2020.

[2] Ministry of Health Facebook [https://www.facebook.com/mohzambia/]. Accessed 3 October 2020.

[3] Ministry of Health Twitter [https://twitter.com/zmpublichealth?lang=en]. Accessed 3 October 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 publicly available evidence that senior leaders (president or ministers) have shared misinformation or disinformation on infectious diseases in the past 2 years. No information on this could be found in media sources including Zambia Daily Mail, Mail and Guardian, Independent Online (IOL) and 24.com. [1,2,3,4]

[1] Zambia Daily Mail limited. [www.daily-mail.co.zm]. Accessed 25 October 2020.

[2] Mail and Guardian. [https://mg.co.za/africa/]. Accessed 25 October 2020.

[3] Independent Online (IOL). 2020. [https://www.iol.co.za/news/]. Accessed 25 October 2020.

[4] 24.com. 2020. News. [https://www.news24.com/]. Accessed 25 October 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: 14.3**

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: 96.41**

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: 10.0

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: 10.0

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: 1

There is no publicly available evidence that Zambia has, in the past year, issued a restriction, without international/bilateral support, on the export/import of medical goods (eg: medicines, oxygen, medical supplies, PPE) due to an infectious disease outbreak. No information on this could be found on the websites of the ministries of Health, Agriculture, Foreign Affairs or the Department of Immigration, or the WHO Disease Outbreak News or the OIE Weekly disease information. [1,2,3,4,5,6]  
Nothing further could be found on media sources.

[1] Ministry of Health. [www.moh.gov.zm]. Accessed 3 October 2020.

[2] Ministry of Agriculture. [www.agriculture.gov.zm]. Accessed 3 October 2020.

[3] Ministry of Foreign Affairs. [http://www.mofa.gov.zm/]. Accessed 3 October 2020.



[4] Department of immigration. [<https://www.zambiaimmigration.gov.zm/>]. Accessed 3 October 2020.

[5] WHO Disease Outbreak News. 2019. [<http://www.who.int/csr/don/en/>]. Accessed 3 October 2020.

[6] OIE Weekly disease information. 2019. [[https://www.oie.int/wahis\\_2/public/wahid.php/Diseaseinformation/WI](https://www.oie.int/wahis_2/public/wahid.php/Diseaseinformation/WI)]. Accessed 3 October 2020.

### 3.7.1b

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

Yes = 0, No = 1

**Current Year Score: 1**

There is no publicly available evidence that Zambia has, in the past year, issued a restriction, without international/bilateral support, on the export/import of non-medical goods (eg: food, textiles, etc) due to an infectious disease outbreak. No information on this could be found on the websites of the ministries of Health, Agriculture, Foreign Affairs or the Department of Immigration, or the WHO Disease Outbreak News or the OIE Weekly disease information. [1,2,3,4,5,6] Nothing further could be found on media sources.

[1] Ministry of Health. [[www.moh.gov.zm](http://www.moh.gov.zm/)]. Accessed 3 October 2020.

[2] Ministry of Agriculture. [[www.agriculture.gov.zm](http://www.agriculture.gov.zm/)]. Accessed 3 October 2020.

[3] Ministry of Foreign Affairs. [<http://www.mofa.gov.zm/>]. Accessed 3 October 2020.

[4] Department of immigration. [<https://www.zambiaimmigration.gov.zm/>]. Accessed 3 October 2020.

[5] WHO Disease Outbreak News. 2019. [<http://www.who.int/csr/don/en/>]. Accessed 3 October 2020.

[6] OIE Weekly disease information. 2019. [[https://www.oie.int/wahis\\_2/public/wahid.php/Diseaseinformation/WI](https://www.oie.int/wahis_2/public/wahid.php/Diseaseinformation/WI)]. Accessed 3 October 2020.

## 3.7.2 Travel restrictions

### 3.7.2a

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

Yes = 0, No = 1

**Current Year Score: 0**

There is evidence that Zambia has, in the past year, implemented a ban, without international/bilateral support, on travellers arriving from a specific country or countries due to an infectious disease outbreak. A Lusaka Times article, dated 31 July 2020, stated that the issuing of tourist visas had been suspended. Visitor visas, or other permits, could still be used, subject to the holder providing a negative covid-19 test result less than 14 days old. [1] No information on this could be found on the websites of the ministries of Health, Agriculture, Foreign Affairs or the Department of Immigration. [2,3,4,5]

[1] Lusaka Times. 31 July 2020. 'Zambians bans foreign tourists as Covid-19 numbers swell'.

[<https://www.lusakatimes.com/2020/07/31/zambians-bans-foreign-tourists-as-covid-19-numbers-swell/>]. Accessed 3 October 2020.

[2] Ministry of Health. [[www.moh.gov.zm](http://www.moh.gov.zm/)]. Accessed 3 October 2020.

[3] Ministry of Agriculture. [[www.agriculture.gov.zm](http://www.agriculture.gov.zm/)]. Accessed 3 October 2020.

[4] Ministry of Foreign Affairs. [<http://www.mofa.gov.zm/>]. Accessed 3 October 2020.

[5] Department of immigration. [<https://www.zambiaimmigration.gov.zm/>]. Accessed 3 October 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: 118.67

2018

WHO; national sources

##### 4.1.1b

Nurses and midwives per 100,000 people

Input number

Current Year Score: 133.76

2018

WHO; national sources

##### 4.1.1c

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

Yes = 1, No = 0

Current Year Score: 1

There is public evidence that Zambia has a public workforce strategy in place (updated in the past five years) to identify fields where there is an insufficient workforce and strategies to address these shortcomings. The 2017 Joint External Evaluation (JEE) report for the Republic of Zambia states that both the Ministry of Health (MoH) and the Veterinary Sector have "produced strategies to upgrade their workforce quantitatively and qualitatively". On the human health side, it states that the MoH produced a "National Human Resources for Health Strategic Plan" for the period 2016-2021. [1] However, this

strategy is not available online via the websites of the Ministries of Health, Labour or Education or the Zambia National Public Health Institute (ZNPPI). [2,3,4,5] Although this strategy is in place, the JEE notes there is room for improvement, stating that "the current human resource strategies do not adequately cater for the requisite public health workforce capacity to implement IHR core capacity requirements" and that "providing lower levels with well-trained health and veterinary officers remains a challenge." [1] The Zambia National Health Strategic Plan (ZNHSP) states that "training of health workers using the IDSR Training Guidelines has been conducted at national, provincial, and district levels since 2007." But that the programme falls far short of the required national representation on account of leaving out the implementation levels (health facilities and the community). [5] There is evidence of a more current National Human Resources for Health Strategic Plan, which is for 2018-2024, but this is not publicly available. [6]

[1] World Health Organisation (WHO). 2017. 'Joint External Evaluation of IHR Core capacities of the Republic of Zambia Mission report, 7-11 August 2017'. [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2017.50/en/>]. Accessed 3 October 2020.

[2] Ministry of Health. [[www.moh.gov.zm/](http://www.moh.gov.zm/)]. Accessed 3 October 2020.

[3] Minister of Labour and Social Security. [<http://www.mlss.gov.zm/>]. Accessed 3 October 2020.

[4] Ministry of Higher Education. [<http://www.mohe.gov.zm/>]. Accessed 3 October 2020.

[5] Zambia National Health Strategic Plan 2017-2021. [<https://www.medbox.org/countries/zambia-national-health-strategic-plan-2017-2021/preview>]. Accessed 3 October 2020.

[6] National Human Resources for Health Strategic Plan 2018-2024.

[<https://www.scribd.com/document/397117979/Ministry-of-Health-Republic-of-Zambia-2018-National-Human-Resources-for-Health-Strategic-Plan-2018-2024>]. Accessed 3 October 2020.

## 4.1.2 Facilities capacity

### 4.1.2a

#### Hospital beds per 100,000 people

Input number

Current Year Score: 200

2010

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 no publicly available evidence that Zambia has the capacity to isolate patients with highly communicable diseases in a biocontainment patient care unit and/or patient isolation facility located within the country. No information could be found on the websites of the Ministry of Health, the Centers for Disease Control and Prevention (CDC), the University Teaching Hospital or the Centre for Infectious Disease Research in Zambia (CIDRZ). [1,2,3,4] The 2017 Joint External Evaluation (JEE) report for the Republic of Zambia states that there is an isolation facility for infectious diseases built in Mwembeshi. [5] This facility is also mentioned in a Zambia National Public Health Institute (ZNPPI) newsletter [6] but it is not evident whether it is

open to the public or if it capable of isolating for all the highly communicable diseases.

[1] Ministry of Health. [www.moh.gov.zm]. Accessed 3 October 2020.

[2] CDC (The Centers for Disease Control and Prevention). Zambia. [https://www.cdc.gov/globalhealth/countries/zambia/]. Accessed 3 October 2020.

[3] University Teaching Hospital. [http://www.uth.gov.zm/]. Accessed 3 October 2020.

[4] Centre for Infectious Disease Research in Zambia (CIDRZ). [http://www.cidrz.org/]. Accessed 3 October 2020.

[5] World Health Organisation (WHO). 2017. 'Joint External Evaluation of IHR Core capacities of the Republic of Zambia Mission report, 7-11 August 2017'. [http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2017.50/en/]. Accessed 4 January 2019.

[6] Zambia National Public Health Institute (ZNPPI). 9 February 2019. 'Ebola training for multi-sectoral teams at points of entry (POES)'. [http://znphi.co.zm/news/ebola-training-for-multi-sectoral-teams-at-points-of-entry-poes/]. Accessed 3 October 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 publicly available evidence that Zambia has demonstrated capacity to expand isolation capacity in response to an infectious disease outbreak, or that a plan has been developed, updated or tested to expand isolation capacity in response to an infectious disease outbreak in the past two years. The Ministry of Health's "COVID-19 Pandemic; Zambia Response" document, dated 12 May 2020, states that there is at least one isolation facility in each province, but there is no mention of expansion of capacity. [1] An isolation facility for infectious diseases in Mwembeshi is mentioned in both the 2017 Joint External Evaluation (JEE) report and in a Zambia National Public Health Institute (ZNPPI) newsletter, but there are no details on expansion of capacity or even whether it is open to the public yet. [2,3] No further information could be found on the websites of the Ministry of Health, the Centre for Disease Control and Prevention (CDC), the University Teaching Hospital, the Centre for Infectious Disease Research in Zambia (CIDRZ) or in the World Health Organisation (WHO) 2017 'Multi-sectoral National Action Plan on Antimicrobial Resistance 2017-2027'. [4,5,6,7,8]

[1] Ministry of Health COVID-19 Pandemic; Zambia Response. 12 May 2020.

[https://echo.unm.edu/doc/covid/edited\_Zambia\_COVID-19\_Response\_AFRO.SF.pdf]. Accessed 9 April 2021.

[2] World Health Organisation (WHO). 2017. 'Joint External Evaluation of IHR Core capacities of the Republic of Zambia Mission report, 7-11 August 2017'. [http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2017.50/en/]. Accessed 8 April 2021.

[3] Zambia National Public Health Institute (ZNPPI). 9 February 2019. 'Ebola training for multi-sectoral teams at points of entry (POES)'. [http://znphi.co.zm/news/ebola-training-for-multi-sectoral-teams-at-points-of-entry-poes/]. Accessed 3 October 2020.

[4] Ministry of Health. [www.moh.gov.zm]. Accessed 3 October 2020.

[5] CDC (The Centre for Disease Control and Prevention). Zambia. [https://www.cdc.gov/globalhealth/countries/zambia/]. Accessed 3 October 2020.

[6] University Teaching Hospital. [http://www.uth.gov.zm/]. Accessed 3 October 2020.

[7] Centre for Infectious Disease Research in Zambia (CIDRZ). [<http://www.cidrz.org/>]. Accessed 3 October 2020.

[8] World Health Organisation (WHO) Publications. 2017. 'Multi-sectoral National Action Plan on Antimicrobial Resistance 2017-2027'. [<https://afro.who.int/sites/default/files/2018-08/ZNPHI%20Document.pdf>]. Accessed 8 April 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: 0**

There is insufficient evidence of a national procurement protocol in place which can be utilized by the Ministries of Health and Agriculture for the acquisition of both laboratory needs such as equipment, reagents and media, and also supplies (equipment, PPE) for routine needs. The Health Sector Supply Chain Strategy and its Implementation Plan 2015-2017 states that some initiatives (driven by the Ministry of Health and its partners) have made significant contributions to systems strengthening and/or product availability, like the implementation of viable supply management systems for laboratory commodities. However, it also highlights a number of procurement challenges including stockouts occurring as a result of lack of funding from Government; untimely, delayed and uncoordinated procurement of medicines and medical supplies by cooperating partners; low levels of transparency and accountability within current procurement practices; emergency responsiveness to gaps in supply chain, due to poor planning, are not adequately addressed by MOH, cooperating partners, or suppliers. [1] The Joint External Evaluation (JEE) report for the Republic of Zambia, completed in August 2017, highlights as areas needing strengthening "Lack of human resources, equipment and reagents is limiting the number of surveillance sites; Laboratory reagents and materials stock-outs." [2] In the Zambia National Health Strategic Plan 2017-2021 does state that "To ensure commodity (drugs and medical supplies) security in the country, significant investment has been made to upgrade Medical Stores Limited (MSL) infrastructure and to establish regional hubs". [3] No further information could be found on the websites of the Ministries of Health, Agriculture or Livestock and Fisheries or the University Teaching Hospital, the Zambia National Public Health Institute (ZNPHI) or in the Zambia Public Procurement Act of 2008, or its Amendment of 2011. [4,5,6,7,8,9]

[1] Health Sector Supply Chain Strategy and its Implementation Plan 2015-2017. [<https://www.moh.gov.zm/docs/impplanncss.pdf>]. Accessed 3 October 2020.

[2] World Health Organisation (WHO). 2017. 'Joint External Evaluation of IHR Core capacities of the Republic of Zambia Mission report, 7-11 August 2017'. [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2017.50/en/>]. Accessed 3 October 2020.

[3] Zambia National Health Strategic Plan 2017-2021. [<https://www.medbox.org/countries/zambia-national-health-strategic-plan-2017-2021/preview>]. Accessed 3 October 2020.

[4] Ministry of Health. [[www.moh.gov.zm](http://www.moh.gov.zm)]. Accessed 3 October 2020.

[5] Ministry of Agriculture. [[www.agriculture.gov.zm](http://www.agriculture.gov.zm)]. Accessed 3 October 2020.

[6] Ministry of Livestock and Fisheries. [[www.mlf.gov.zm](http://www.mlf.gov.zm)]. Accessed 3 October 2020.

[7] University Teaching Hospital. [<http://www.uth.gov.zm/>]. Accessed 3 October 2020.

[8] Zambia National Public Health Institute (ZNPHI). 2018. Surveillance and Disease Intelligence.

[<http://znphi.co.zm/surveillance-and-disease-intelligence.html>]. Accessed 3 October 2020.

[9] Zambia Public Procurement Authority. [<https://www.zppa.org.zm/>]. Accessed 3 October 2020.

## 4.2.2 Stockpiling for emergencies

### 4.2.2a

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

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

**Current Year Score: 1**

There is evidence of a stockpile of medical supplies (e.g. MCMs, medicines, vaccines, medical equipment, PPE) for national use during a public health emergency but insufficient evidence of what it contains. The 2017 Joint External Evaluation (JEE) report for the Republic of Zambia, completed in August 2017, states "the Ministry of Health has dedicated medical logisticians who track medical supplies and maintain a stockpile of MCM for national use during a public health emergency" and "The Medical Stores Limited (MSL) has a number of running contracts for the supply of medical supplies but is also dedicated to procuring medical supplies and MCM for the country should the need arise, such as a public health emergency". [1,2] In the Ministry of Health 'Zambia's response to COVID-19' document PPE mobilisation and stockpiling is advocated, but there is no indication of a pre-existing stockpile. [3] The Health Sector Supply Chain Strategy and its Implementation Plan 2015-2017 makes no mention of a PPE stockpile, but does make frequent reference to stockouts of other items due to a number of reasons. [4] There is no further information on PPE stockpiles in the websites of the Ministry of Health or the Ministry of Defence, the National Public Health Institute (ZNPHI) or the Zambia Medicines Regulatory Authority (ZAMRA). [5,6,7,8]

[1] World Health Organisation (WHO). 2017. 'Joint External Evaluation of IHR Core capacities of the Republic of Zambia Mission report, 7-11 August 2017'. [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2017.50/en/>]. Accessed 3 October 2020.

[2] Medical Stores Limited. [<http://www.medstore.co.zm/>]. Accessed 3 October 2020.

[3] Zambia National Public Health Institute, Ministry of Health. 16 April 2020. 'Zambia's response to COVID-19'. [[https://www.reactgroup.org/wp-content/uploads/2020/04/Session-5d-MS.-Otridah-Kapona-Zambia\\_-COVID-19\\_16.04.20-.pdf](https://www.reactgroup.org/wp-content/uploads/2020/04/Session-5d-MS.-Otridah-Kapona-Zambia_-COVID-19_16.04.20-.pdf)].

[4] Health Sector Supply Chain Strategy and its Implementation Plan 2015-2017. [<https://www.moh.gov.zm/docs/implanncss.pdf>]. Accessed 3 October 2020.

[5] Ministry of Health. [[www.moh.gov.zm](http://www.moh.gov.zm/)], Accessed 3 October 2020.

[6] Ministry of Defence [[www.mod.gov.zm](http://www.mod.gov.zm/)]. Accessed 3 October 2020.

[7] National Public Health Institute (ZNPHI). [<http://znphi.co.zm/>]. Accessed 3 October 2020.

[8] Zambia Medicines Regulatory Authority (ZAMRA). [<http://www.zamra.co.zm/>]. Accessed 3 October 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 a stockpile of laboratory supplies (e.g. reagents, media) for national use during a public health emergency. The 2017 Joint External Evaluation (JEE) report for the Republic of Zambia, completed in August 2017 mentions, as an area that need strengthening: reagents and materials stock-outs. [1] A New York Times article, dated 9 April 2020, stated that Zambia was already struggling to source testing materials like swabs and reagents, quoting Charles Holmes, a board member of the Centre for Infectious Disease Research in Zambia. [2] There is no further information on laboratory supply stockpiles in the websites of the Ministry of Health or the Ministry of Defence, the National Public Health Institute (ZNPHI) or the Zambia Medicines Regulatory Authority (ZAMRA). [3,4,5,6]

[1] World Health Organisation (WHO). 2017. 'Joint External Evaluation of IHR Core capacities of the Republic of Zambia Mission report, 7-11 August 2017'. [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2017.50/en/>]. Accessed 3 October 2020.

[2] New York Times. 9 April 2020. [<https://www.nytimes.com/2020/04/09/world/coronavirus-equipment-rich-poor.html>]. Accessed 3 October 2020.

[3] Ministry of Health. [[www.moh.gov.zm](http://www.moh.gov.zm)], Accessed 3 October 2020.

[4] Ministry of Defence [[www.mod.gov.zm](http://www.mod.gov.zm)]. Accessed 3 October 2020.

[5] National Public Health Institute (ZNPHI). [<http://znphi.co.zm/>]. Accessed 3 October 2020.

[6] Zambia Medicines Regulatory Authority (ZAMRA). [<http://www.zamra.co.zm/>]. Accessed 3 October 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 the country conducts or requires an annual review of the national stockpile to ensure the supply is sufficient for a public health emergency. No information on annual checking of stockpiles could be found through the Ministries of Health or Defence, the Zambia National Public Health Institute (ZNPHI), the Medical Stores Limited (MSL), the Joint External Evaluation (JEE) of 2017 or the Zambia Medicines Regulatory Authority (ZAMRA). [1,2,3,4,5,6]

[1] Ministry of Health. [[www.moh.gov.zm](http://www.moh.gov.zm)]. Accessed 9 April 2021.

[2] Ministry of Defence [[www.mod.gov.zm](http://www.mod.gov.zm)]. Accessed 9 April 2021.

[3] Zambia National Public Health Institute (ZNPHI). [<http://znphi.co.zm/>]. Accessed 9 April 2021.

[4] Medical Stores Limited. [<http://www.medstore.co.zm/>]. Accessed 9 April 2021.

[5] World Health Organisation (WHO). 2017. 'Joint External Evaluation of IHR Core capacities of the Republic of Zambia Mission report, 7-11 August 2017'. [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2017.50/en/>]. Accessed 9 April 2021.

[6] Zambia Medicines Regulatory Authority (ZAMRA). [<http://www.zamra.co.zm/>]. Accessed 9 April 2021.

### 4.2.3 Manufacturing and procurement for emergencies

#### 4.2.3a

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

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

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

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

**Current Year Score: 1**

There is evidence of a mechanism to procure medical supplies (e.g. equipment, PPE) and medical countermeasures (MCMs) (i.e. vaccines, therapeutics and diagnostics) for national use during a public health emergency, but no publicly available evidence of a plan/mechanism to leverage domestic manufacturing capacity to produce these same supplies and countermeasures for national use during a public health emergency. The Joint External Evaluation (JEE) report for the Republic of Zambia, completed in August 2017 states "the Ministry of Health has dedicated medical logisticians who track medical supplies and maintain a stockpile of MCM for national use during a public health emergency" and "The Medical Stores Limited has a number of running contracts for the supply of medical supplies but is also dedicated to procuring medical supplies and MCM for the country should the need arise, such as a public health emergency". [1] There is no detail on domestic manufacturing capacity of PPE, or procurement of PPE for national use during a health emergency in the JEE report or on the websites of the Ministry of Health or the Ministry of Defence, the National Public Health Institute (ZNPHI) or the Zambia Medicines Regulatory Authority (ZAMRA). [1,2,3,4,5]

[1] World Health Organisation (WHO). 2017. 'Joint External Evaluation of IHR Core capacities of the Republic of Zambia Mission report, 7-11 August 2017'. [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2017.50/en/>]. Accessed 3 October 2020.

[2] Ministry of Health. [[www.moh.gov.zm](http://www.moh.gov.zm)], Accessed 3 October 2020.

[3] Ministry of Defence [[www.mod.gov.zm](http://www.mod.gov.zm)]. Accessed 3 October 2020.

[4] National Public Health Institute (ZNPHI). [<http://znphi.co.zm/>]. Accessed 3 October 2020.

[5] Zambia Medicines Regulatory Authority (ZAMRA). [<http://www.zamra.co.zm/>]. Accessed 3 October 2020.

#### **4.2.3b**

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

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

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

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

**Current Year Score: 0**

There is no publicly available evidence of a plan/agreement to leverage domestic manufacturing capacity to produce laboratory supplies (e.g. reagents, media) or of a plan/mechanism to procure laboratory supplies for national use during a public health emergency. There is no information on this in the Joint External Evaluation (JEE) report for the Republic of Zambia, completed in August 2017, or on the websites of the Ministry of Health or the Ministry of Defence, the National Public Health Institute (ZNPHI) or the Zambia Medicines Regulatory Authority (ZAMRA). [1,2,3,4,5] A New York Times article, dated 9 April 2020, stated that Zambia was already struggling to source testing materials like swabs and reagents, quoting Charles Holmes, a board member of the Centre for Infectious Disease Research in Zambia. "Manufacturers have told Zambian officials that they cannot guarantee a delivery date for supplies because "most of them are being snapped up by the U.S. and Europe." [6]

[1] World Health Organisation (WHO). 2017. 'Joint External Evaluation of IHR Core capacities of the Republic of Zambia Mission report, 7-11 August 2017'. [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2017.50/en/>]. Accessed 3



October 2020.

[2] Ministry of Health. [www.moh.gov.zm], Accessed 3 October 2020.

[3] Ministry of Defence [www.mod.gov.zm]. Accessed 3 October 2020.

[4] National Public Health Institute (ZNPPI). [http://znphi.co.zm/]. Accessed 3 October 2020.

[5] Zambia Medicines Regulatory Authority (ZAMRA). [http://www.zamra.co.zm/]. Accessed 3 October 2020.

[6] New York Times. 9 April 2020. [https://www.nytimes.com/2020/04/09/world/coronavirus-equipment-rich-poor.html]. Accessed 3 October 2020.

## 4.3 MEDICAL COUNTERMEASURES AND PERSONNEL DEPLOYMENT

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

#### 4.3.1a

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

Yes = 1 , No = 0

**Current Year Score: 0**

There is no publicly available evidence that Zambia has a plan, program, or guidelines in place for dispensing medical countermeasures (MCM) for national use during a public health emergency. No information on MCM could be found in the websites of the Ministries of Health or Defence or the Zambia National Public Health Institute or in the 'Zambia's response to COVID-19' document. [1,2,3,4] The 2017 Joint External Evaluation (JEE) report for the Republic of Zambia, completed in August 2017 states " regulatory, logistic and security concerns related to sending, receiving, and distributing MCM during a public health emergency have not been addressed." It makes no mention of dispensing. [5]

[1] Ministry of Health. [www.moh.gov.zm]. Accessed 4 October 2020. January 2019.

[2] Ministry of Defence. [www.mod.gov.zm]. Accessed 4 October 2020.

[3] Zambia National Public Health Institute (ZNPPI). 2018. Preparedness and Response. [http://znphi.co.zm/preparedness-and-response.html]. Accessed 4 October 2020.

[4] Zambia National Public Health Institute, Ministry of Health. 16 April 2020. 'Zambia's response to COVID-19'. [https://www.reactgroup.org/wp-content/uploads/2020/04/Session-5d-Ms.-Otridah-Kapona-Zambia\_-COVID-19\_16.04.20-.pdf]. Accessed 4 October 2020.

[5] World Health Organisation (WHO). 2017. 'Joint External Evaluation of IHR Core capacities of the Republic of Zambia Mission report, 7-11 August 2017'. [http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2017.50/en/]. Accessed 4 January 2019.

### 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 no publicly available evidence of a public plan to receive health personnel from other countries to respond to a public health emergency. No information on this could be found in the websites of the Ministries of Health or Defence, the Zambia National Public Health Institute or the 'Zambia's response to COVID-19' document. [1,2,3,4] The 2017 Joint External Evaluation (JEE) report for the Republic of Zambia mentions that Zambia has previously benefitted from international technical support "such as during the 2010 measles outbreak when deployment of external experts was facilitated by organizations such as CDC and WHO." However, although deployment of international health personnel has occurred, it is on an ad hoc basis and "There is no national framework or formal systems that govern international deployment of health personnel" [5]

[1] Ministry of Health. [www.moh.gov.zm]. Accessed 4 October 2020.

[2] Ministry of Defence. [www.mod.gov.zm]. Accessed 4 October 2020.

[3] Zambia National Public Health Institute (ZNPHI). 2018. Preparedness and Response. [http://znphi.co.zm/preparedness-and-response.html]. Accessed 4 October 2020.

[4] Zambia National Public Health Institute, Ministry of Health. 16 April 2020. 'Zambia's response to COVID-19'. [https://www.reactgroup.org/wp-content/uploads/2020/04/Session-5d-Ms.-Otridah-Kapona-Zambia\_-COVID-19\_16.04.20-.pdf]. Accessed 4 October 2020.

[5] World Health Organisation (WHO). 2017. 'Joint External Evaluation of IHR Core capacities of the Republic of Zambia Mission report, 7-11 August 2017'. [http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2017.50/en/]. Accessed 4 October 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: 0**

2020

World Policy Analysis Center

#### 4.4.1b

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

Input number

**Current Year Score: 80.4**

2018

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: 21.36**

2017

WHO Global Health Expenditure database

#### 4.4.2 Paid medical leave

##### 4.4.2a

**Are workers guaranteed paid sick leave?**

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

**Current Year Score: 2**

2020

World Policy Analysis Center

#### 4.4.3 Healthcare worker access to healthcare

##### 4.4.3a

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

Yes = 1, No = 0

**Current Year Score: 0**

There is no publicly available evidence of the government having issued legislation, a policy or a public statement committing to provide prioritized health care services to healthcare workers who become sick as a result of responding to a public health emergency. No information could be found on the websites of Ministry of Health or the United Nations Disaster Risk Reduction (UNISDR), or in the Joint External Evaluation (JEE) report for the Republic of Zambia, completed in August 2017 or the 'Zambia's response to COVID-19' document. [1,2,3,4]

[1] Ministry of Health. [www.moh.gov.zm]. Accessed 4 October 2020.

[2] United Nations Disaster Risk Reduction (UNISDR). [https://www.unisdr.org/partners/countries/zmb]. Accessed 4 October 2020.

[3] World Health Organisation (WHO). 2017. 'Joint External Evaluation of IHR Core capacities of the Republic of Zambia Mission report, 7-11 August 2017'. [http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2017.50/en/]. Accessed 4 October 2020.

[4] Zambia National Public Health Institute, Ministry of Health. 16 April 2020. 'Zambia's response to COVID-19'. [https://www.reactgroup.org/wp-content/uploads/2020/04/Session-5d-Ms.-Otridah-Kapona-Zambia\_COVID-19\_16.04.20.pdf]. Accessed 4 October 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 no publicly available evidence of a system in place for public health officials and healthcare workers to communicate during a public health emergency. No information could be found on the website of the United Nations Disaster Risk Reduction (UNISDR) or in the 'Zambia's response to COVID-19' document. [1,2] The Joint External Evaluation (JEE) report for the Republic of Zambia, completed in August 2017 notes, as a strength, the existence of a National Epidemic Preparedness Prevention and Control risk communication subcommittee, however it also states that there is no formal mechanism for systematic information sharing / communication between relevant sectors. Recommendations include; "Develop an all-hazard public health risk communication plan to enhance collaboration and coordination among relevant stakeholders" and "Strengthen the communication and coordination between internal and external partners to create an effective risk communication mechanism." [3] The Zambia National Health Strategic Plan 2017-2021 (ZNHSP) states as an aim to "Develop a national multi-hazard emergency risk communication plan" [4]

[1] United Nations Disaster Risk Reduction (UNISDR). [<https://www.unisdr.org/partners/countries/zmb>]. Accessed 4 October 2020.

[2] Zambia National Public Health Institute, Ministry of Health. 16 April 2020. 'Zambia's response to COVID-19'. [[https://www.reactgroup.org/wp-content/uploads/2020/04/Session-5d-Ms.-Otridah-Kapona-Zambia\\_-COVID-19\\_16.04.20-.pdf](https://www.reactgroup.org/wp-content/uploads/2020/04/Session-5d-Ms.-Otridah-Kapona-Zambia_-COVID-19_16.04.20-.pdf)]. Accessed 4 October 2020.

[3] World Health Organisation (WHO). 2017. 'Joint External Evaluation of IHR Core capacities of the Republic of Zambia Mission report, 7-11 August 2017'. [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2017.50/en/>]. Accessed 4 October 2020.

[4] Zambia National Health Strategic Plan 2017-2021. [<https://www.medbox.org/countries/zambia-national-health-strategic-plan-2017-2021/preview>]. Accessed 4 October 2020.

#### 4.5.1b

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

Yes = 1 , No = 0

**Current Year Score: 0**

There is no publicly available evidence that a system for public health officials and healthcare workers to communicate during an emergency encompasses healthcare workers in both the public and private sector. No information of a system in place for public health officials and healthcare workers to communicate during a public health emergency could be found on the website of the United Nations Disaster Risk Reduction (UNISDR) or in the 'Zambia's response to COVID-19' document. [1,2] The Joint External Evaluation (JEE) report for the Republic of Zambia, completed in August 2017 notes, as a strength, the existence of a National Epidemic Preparedness Prevention and Control risk communication subcommittee, however it also

states that there is no formal mechanism for systematic information sharing / communication between relevant sectors. Recommendations include; "develop an all-hazard public health risk communication plan to enhance collaboration and coordination among relevant stakeholders" and "strengthen the communication and coordination between internal and external partners to create an effective risk communication mechanism." [3] The Zambia National Health Strategic Plan 2017-2021 (ZNHSP) states as an aim to "develop a national multi-hazard emergency risk communication plan" [4]

[1] United Nations Disaster Risk Reduction (UNISDR). [<https://www.unisdr.org/partners/countries/zmb>]. Accessed 4 October 2020.

[2] Zambia National Public Health Institute, Ministry of Health. 16 April 2020. 'Zambia's response to COVID-19'. [[https://www.reactgroup.org/wp-content/uploads/2020/04/Session-5d-Ms.-Otridah-Kapona-Zambia\\_-COVID-19\\_16.04.20-.pdf](https://www.reactgroup.org/wp-content/uploads/2020/04/Session-5d-Ms.-Otridah-Kapona-Zambia_-COVID-19_16.04.20-.pdf)]. Accessed 4 October 2020.

[3] World Health Organisation (WHO). 2017. 'Joint External Evaluation of IHR Core capacities of the Republic of Zambia Mission report, 7-11 August 2017'. [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2017.50/en/>]. Accessed 4 October 2020.

[4] Zambia National Health Strategic Plan 2017-2021. [<https://www.medbox.org/countries/zambia-national-health-strategic-plan-2017-2021/preview>]. Accessed 4 October 2020.

## 4.6 INFECTION CONTROL PRACTICES AND AVAILABILITY OF EQUIPMENT

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

#### 4.6.1a

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

Yes = 1 , No = 0

**Current Year Score: 0**

There is no publicly available evidence that the national public health system monitors and tracks the number of health care associated infections that take place in healthcare facilities. No evidence of such a system was found in the 'Zambia's response to COVID-19' document or on the websites of the Ministry of Health, the University Teaching Hospital, the Centre for Infectious Disease Research in Zambia, the Zambia National Public Health Institute or in the Multi-sectoral National Action Plan on Antimicrobial Resistance 2017-2027. [1,2,3,4,5,6] The Joint External Evaluation (JEE) report for the Republic of Zambia, completed in August 2017 , states, as an area needing strengthening: " Strengthening the system for monitoring health care associated infections." [7]

[1] Zambia National Public Health Institute, Ministry of Health. 16 April 2020. 'Zambia's response to COVID-19'. [[https://www.reactgroup.org/wp-content/uploads/2020/04/Session-5d-Ms.-Otridah-Kapona-Zambia\\_-COVID-19\\_16.04.20-.pdf](https://www.reactgroup.org/wp-content/uploads/2020/04/Session-5d-Ms.-Otridah-Kapona-Zambia_-COVID-19_16.04.20-.pdf)]. Accessed 4 October 2020.

[2] Ministry of Health. [[www.moh.gov.zm](http://www.moh.gov.zm)]. Accessed 4 January 2019.

[3] University Teaching Hospital. [<http://www.uth.gov.zm/>]. Accessed 4 October 2020.

[4] Centre for Infectious Disease Research in Zambia (CIDRZ). [<http://www.cidrz.org/>]. Accessed 4 October 2020.

[5] Zambia National Public Health Institute (ZNPHI). [<http://znphi.co.zm/>]. Accessed 4 October 2020.

[6] WHO Publications. 2017. 'Multi-sectoral National Action Plan on Antimicrobial Resistance 2017-2027'. [<https://afro.who.int/sites/default/files/2018-08/ZNPHI%20Document.pdf>]. Accessed 4 October 2020.

[7] World Health Organisation (WHO). 2017. 'Joint External Evaluation of IHR Core capacities of the Republic of Zambia

Mission report, 7-11 August 2017'. [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2017.50/en/>]. Accessed 4 October 2020.

## 4.7 CAPACITY TO TEST AND APPROVE NEW MEDICAL COUNTERMEASURES

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

#### 4.7.1a

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

Yes = 1, No = 0

**Current Year Score: 1**

There is evidence of a national requirement for ethical review before beginning a clinical trial. The now defunct Pharmaceutical Regulatory Authority (superseded by the Zambia Medicines Regulatory Authority [ZMRA]) paper titled 'Guidelines on regulating the conduct of clinical trials in human participants' (first edition) states "A clinical trial that has received approval from the Regulatory Authority may only proceed once clearance has also been obtained from a recognized Research Ethics Committee for a particular trial site". [1] Furthermore, the Medicines and Allied Substances Act of 2013 states, in paragraph 49, that "A person shall not conduct a clinical trial involving a medicine or allied substance without a clinical trial certificate". [2] Zambia has a National Health Research Authority, which sits under the Ministry of Health. [3] National Health Research Authority guidelines state "all researchers are mandated to submit their research protocols to the National Health Research Authority upon receipt of approval from a Research Ethics Committee or an Institutional Review Board as dictated by an Act of Parliament (No. 2 of 2013)". [4]

[1] Zambia Medicines Regulatory Authority (ZMRA). 'Guidelines on regulating the conduct of clinical trials in human participants' (first edition). [<http://www.zamra.co.zm/wp-content/uploads/2016/10/Guidelines-on-Application-for-Clinical-Trial-Authorisation.pdf>]. Accessed 25 October 2020.

[2] Medicines and Allied Substances Act 2013. [<http://www.zamra.co.zm/wp-content/uploads/2016/10/MASA-No-3-2013.pdf>]. Accessed 4 October 2020.

[3] National Health Research Authority (NHRA). "What we do". [<https://www.nhra.org.zm/what-we-do/>]. Accessed 4 October 2020.

[5] National Health Research Authority (NHRA). "Authority to conduct research." [<https://www.nhra.org.zm/authority-to-conduct-research>]. Accessed 4 October 2020.

#### 4.7.1b

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

Yes = 1, No = 0

**Current Year Score: 0**

There is insufficient publicly evidence of an expedited process for approving clinical trials for unregistered medical countermeasures to treat ongoing pandemics. There is an article, dated May 2020, in African Arguments (a pan-African platform for news, investigation and opinion) states that the Africa Centers for Disease Control and Prevention (CDC), during

a Covid-19 regional clinical briefing on 30 April 2020, stated that only 4 (of which Zambia is one) of Africa's 54 countries are currently participating in Covid-19 global Solidarity Clinical Trials for therapeutic products. "The Solidarity trial was designed by the WHO to achieve speed and scale in generating results faster by allowing multiple countries to participate using simplified procedures that enable even the most inundated hospitals to participate." This, however, is a one-off event, rather than a pre-existing process. [1] No other evidence was found on the websites of the National Health Research Authority (NHRA), the Ministry of Health, the Zambia National Public Health Institute (ZNPHI) or Zambia Medicines Regulatory Authority (ZAMRA). [2,3,4,5]

[1] Hwenda, Lenias. 11 May 2020. 'Are African Governments Engaging Enough in Covid-19 Clinical Trial Participation?' African Arguments. [<https://africanarguments.org/2020/05/11/are-african-governments-engaging-enough-in-covid-19-clinical-trial-participation/>]. Accessed 4 October 2020.

[2] National Health Research Authority (NHRA). [<https://www.nhra.org.zm>]. Accessed 4 October 2020.

[3] Ministry of Health. [[www.moh.gov.zm](http://www.moh.gov.zm)]. Accessed 4 October 2020.

[4] Zambia National Public Health Institute (ZNPHI). Surveillance and Disease Intelligence. [<http://znphi.co.zm/surveillance-and-disease-intelligence.html>]. Accessed 4 October 2020.

[5] Zambia Medicines Regulatory Authority (ZAMRA). 'Guidelines on regulating the conduct of clinical trials in human participants' (first edition). [<https://medbox.org/pdf/5e148832db60a2044c2d406a>]. Accessed 4 October 2020.

## 4.7.2 Regulatory process for approving medical countermeasures

### 4.7.2a

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

Yes = 1 , No = 0

**Current Year Score: 1**

There is a government agency responsible for approving new medical countermeasures (MCM) for humans. The government agency responsible for approving new medical countermeasures for humans is the Zambia Medicines Regulatory Authority (ZAMRA). The Medicines and Allied Substances Act No. 3 of 2013 states "ZAMRA registers and regulates all medicines and allied substances for human and veterinary use in Zambia. It conducts routine post-marketing surveillance (PMS), pharmacovigilance and quality control testing activities on selected registered medicines, including antimicrobials. It also conducts enforcement activities to curb illegal distribution of registered and unregistered medicines". [1,2]

[1] Zambia Medicines Regulatory Authority (ZAMRA). "Functions." [<http://www.zamra.co.zm/functions>]. 4 October 2020.

[2] Zambia Medicines Regulatory Authority. 'Guidelines on regulating the conduct of clinical trials in human participants' (first edition). [<https://medbox.org/pdf/5e148832db60a2044c2d406a>]. Accessed 4 October 2020.

### 4.7.2b

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

Yes = 1 , No = 0

**Current Year Score: 0**

There is no publicly available evidence of an expedited process for approving medical countermeasures (MCM) for human use during public health emergencies. The Joint External Evaluation (JEE) report for the Republic of Zambia, completed in August 2017, states "There is no plan or guiding procedures in place that address MCM." No further information could be

found on the websites of the Ministry of Health, the National Health Research Authority, the Zambia National Public Health Institute (ZNPHI) or the Zambia Medicines Regulatory Authority (ZAMRA). [2,3,4,5]

[1] World Health Organisation (WHO). 2017. 'Joint External Evaluation of IHR Core capacities of the Republic of Zambia Mission report, 7-11 August 2017'. [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2017.50/en/>]. Accessed 4 October 2020.

[2] Ministry of Health. [[www.moh.gov.zm](http://www.moh.gov.zm)]. Accessed 4 October 2020.

[3] National Health Research Authority. [[www.nhra.org.zm](http://www.nhra.org.zm)]. Accessed 4 October 2020.

[4] Zambia National Public Health Institute (ZNPHI). [<http://znphi.co.zm/>]. Accessed 4 October 2020.

[5] Zambia Medicines Regulatory Authority (ZAMRA). "Functions." [<http://www.zamra.co.zm/functions>]. 4 October 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 publicly available evidence that pandemics are integrated into the national risk reduction strategy, neither is there a standalone national disaster risk reduction strategy for pandemics. The 'Zambia's response to COVID-19' document has limited detail, and it is disease specific. [1]



No information could be found on the websites of Ministry of Health or the Disaster Management and Mitigation Unit (DMMU). [2,3] The Joint External Evaluation (JEE) report for the Republic of Zambia, completed in August 2017, makes no mention of a national risk reduction strategy for pandemics. [4] A WHO - African Health Observatory analysis (undated) states that Zambia faces challenges with preparedness and control of emerging and known epidemics, which are largely driven by deprivations caused by poverty. "The situation is compounded by weak multi-sectoral emergency preparedness and control coordination, communication strategy, and definition of the role of key stakeholders. As the control of human epidemics is enshrined in the Public Health Act (1995), the perception is that only the MOH is responsible for health and should undertake such activities. This undermines multi-sector response and participation." [5] There is a Disaster Management Operations Manual, created in 2015, that deals with the handling of epidemics, but these specific to floods and droughts. [6] Nothing further on this could be found in media sources.

- [1] Zambia National Public Health Institute, Ministry of Health. 16 April 2020. 'Zambia's response to COVID-19'. [[https://www.reactgroup.org/wp-content/uploads/2020/04/Session-5d-Ms.-Otridah-Kapona-Zambia\\_-COVID-19\\_16.04.20-.pdf](https://www.reactgroup.org/wp-content/uploads/2020/04/Session-5d-Ms.-Otridah-Kapona-Zambia_-COVID-19_16.04.20-.pdf)]. Accessed 4 October 2020.
- [2] Ministry of Health. [[www.moh.gov.zm](http://www.moh.gov.zm)]. Accessed 4 October 2020.
- [3] Disaster Management and Mitigation Unit (DMMU). [<http://www.dmmu-ovp.gov.zm>]. Accessed 4 October 2020.
- [4] World Health Organisation (WHO). 2017. 'Joint External Evaluation of IHR Core capacities of the Republic of Zambia mission report, 7-11 August 2017'. [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2017.50/en/>]. Accessed 4 October 2020.
- [5] WHO - African Health Observatory. undated. 'Zambia: Analytical summary Epidemic and pandemic-prone diseases'. [[http://www.who.int/profiles\\_information/index.php/Zambia:Analytical\\_summary\\_-\\_Epidemic\\_and\\_pandemic-prone\\_diseases](http://www.who.int/profiles_information/index.php/Zambia:Analytical_summary_-_Epidemic_and_pandemic-prone_diseases)]. Accessed 4 October 2020.
- [6] PreventionWeb. 'Zambia: Disaster management operations manual (2015)'. [<https://www.preventionweb.net/english/professional/policies/v.php?id=47491>]. Accessed 4 October 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: 0**

There is insufficient evidence that Zambia has cross-border agreements, protocols or MOUs with neighbouring countries, or as part of a regional group, with regards to public health emergencies. There are two Centers for Disease Control and Prevention (CDC) articles on liaison between Zambia and her neighbours on cross-border issues. The first, from August 2018, has details of CDC teaming up with the International Association of National Public Health Institutes (IANPHI) and Zambia National Public Health Institute (ZNPHI) "to strengthen regional capacity for cross-border Public Health Emergency Management (PHEM) development in southern Africa". [1] The second is from October 2019, has details of a Malawi and Zambia cross-border disease surveillance team meeting. "Participants in the meeting acknowledged the need for increased collaboration on cross-border surveillance between countries. They conducted simulation exercises to test their readiness to respond to any EVD outbreak and identify gaps in preparedness." [2] There is, however, no evidence of subsequent agreements being reached as a result of these events. Southern African Development Community (SADC) News item, dated

10 April 2018, states that "the SADC Secretariat has been facilitating implementation of an HIV and AIDS Cross-Border Initiative (CBI) with support from the Global Fund in 12 SADC Member States" of which Zambia is one, but this initiative is not generic regarding other pathogens with pandemic potential. [3] The SADC website makes no mention of cross-border agreements specifically for public health emergencies. [4] No further information on this could be found in the websites of the Ministry of Health or the Food and Agriculture Organization of the United Nations (FAO) or in the Joint External Evaluation (JEE) report for the Republic of Zambia, completed in August 2017. [5] Nothing further on this could be found in media sources.

[1] Centers for Disease Control and Prevention (CDC). August 2018. 'National Public Health Institutes: Leadership in Emergencies'. [<https://www.cdc.gov/globalhealth/stories/nphi-leadership-in-emergencies.html>]. Accessed 4 October 2020. 5 January 2019.

[2] Africa CDC Weekly Brief. 1 October 2019. 'Ebola Virus Disease Outbreak in the Democratic Republic of Congo'. [[https://au.int/sites/default/files/documents/37415-doc-africa\\_cdc\\_weekly\\_brief Ebola\\_1\\_october\\_2019\\_english.pdf](https://au.int/sites/default/files/documents/37415-doc-africa_cdc_weekly_brief Ebola_1_october_2019_english.pdf)]. Accessed 4 October 2020.

[3] Southern African Development Community (SADC) news. 10 April 2018. 'SADC Hands over HIV Cross Border Wellness Clinic to Botswana Government'. [<https://www.sadc.int/news-events/news/sadc-hands-over-hiv-cross-border-wellness-clinic-botswana-government/>]. Accessed 4 October 2020.

[4] Southern African Development Community (SADC). [<https://www.sadc.int/themes/disaster-risk-management/>]. Accessed 4 October 2020.

[5] Ministry of Health. [[www.moh.gov.zm](http://www.moh.gov.zm)]. Accessed 4 October 2020.

[6] Food and Agriculture Organization of the United Nations (FAO). 2019. Zambia country profile. [<http://www.fao.org/countryprofiles/index/en/?iso3=ZMB>]. Accessed 4 October 2020.

[7] World Health Organisation (WHO). 2017. 'Joint External Evaluation of IHR Core capacities of the Republic of Zambia Mission report, 7-11 August 2017'. [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2017.50/en/>]. Accessed 4 October 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 no publicly available evidence that Zambia has cross-border agreements, protocols or MOUs with neighbouring countries, or as part of a regional group, with regards to animal health emergencies. No information on this can be found in the websites of the Ministries of Agriculture, Livestock and Fisheries, the Food and Agriculture Organization of the United Nations (FAO), the World Organisation for Animal Health (OIE) (PVS Gap Analysis reports or Country information), the Southern African Development Community (SADC) or the Joint External Evaluation (JEE) report for the Republic of Zambia, completed in August 2017. [1,2,3,4,5,6] The Central Veterinary Research Institute (CVRI) has no online presence. Nothing further on this could be found in media sources.

[1] Ministry of Agriculture. [[www.agriculture.gov.zm](http://www.agriculture.gov.zm)]. Accessed 25 October 2020.

[2] Ministry of Livestock and Fisheries. [[www.mfl.gov.zm](http://www.mfl.gov.zm)]. Accessed 25 October 2020.

[3] Food and Agriculture Organization of the United Nations (FAO). Zambia country profile. [<http://www.fao.org/countryprofiles/index/en/?iso3=ZMB>]. Accessed 25 October 2020.

[4] World Organisation for Animal Health (OIE). PVS Gap Analysis reports. [<http://www.oie.int/support-to-oie-members/pvs-gap-analysis/pvs-gap-analysis-reports/>]. Country information.

[[http://www.oie.int/wahis\\_2/public/wahid.php/Countryinformation/countryhome](http://www.oie.int/wahis_2/public/wahid.php/Countryinformation/countryhome)]. Accessed 25 October 2020.

[5] Southern African Development Community (SADC). [<https://www.sadc.int/themes/disaster-risk-management/>]. Accessed 25 October 2020.

[6] WHO. 2017. 'Joint External Evaluation of IHR Core capacities of the Republic of Zambia Mission report, 7-11 August 2017'. [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2017.50/en/>]. Accessed 25 October 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: 2

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: 0

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 no publicly available evidence that the country has allocated national funds to improve capacity to address epidemic threats within the past three years. No information on this could be found on the websites of the Ministries of Health or Agriculture or in the budget analyses of 2018, 2019 or 2020. [1,2,3] The Joint External Evaluation (JEE) report for the Republic of Zambia, completed in August 2017 makes several references to lack of funding. [4]

[1] Ministry of Health. [www.moh.gov.zm]. Accessed 4 October 2020.

[2] Ministry of Agriculture. [www.agriculture.gov.zm]. Accessed 4 October 2020.

[3] Policy Monitoring and Research Centre (PMRC). 2020. [https://pmrczambia.com/wp-content/uploads/2019/11/PMRC-

2020-Zambia-National-Budget-Analysis.pdf]. 2019. [<https://pmrczambia.com/pmrc-2019-national-budget-analysis/>]. 2018. [<https://www.pmrczambia.com/wp-content/uploads/2017/11/2018-National-Budget-Analysis.pdf>]. Accessed 4 October 2020.

[4] World Health Organisation (WHO). 2017. 'Joint External Evaluation of IHR Core capacities of the Republic of Zambia Mission report, 7-11 August 2017'. [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2017.50/en/>]. Accessed 4 October 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 enough evidence that there are funds which the country can access in the face of a public health emergency. As an IDA eligible borrowing country, Zambia is eligible for the World Bank Pandemic Emergency Financing Facility (PEF). [1,2]

[1] The International Development Association (IDA). 2018. [<http://ida.worldbank.org/about/borrowing-countries>]. Accessed 4 October 2020.

[2] World Bank Pandemic Emergency Financing Facility (PEF). December 2017. 'Operational Brief for Eligible Countries'. [<http://pubdocs.worldbank.org/en/119961516647620597/PEF-Operational-Brief-Dec-2017.pdf>]. Accessed 4 October 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: 0**

There is no publicly available evidence that any Zambian senior leaders (president or ministers) have made a public commitment to support other countries to improve capacity to address epidemic threats by providing financing or support in the past three years. No evidence could be found on the websites of the ministries of Health or Foreign Affairs or the African health observatory (AHO). [1,2,3] The Joint External Evaluation (JEE) report for the Republic of Zambia, completed in August 2017, states there have been situations in neighbouring countries, such as the cholera outbreak in Zimbabwe, when health staff from Zambia went to support the response efforts. Listed as a strength is "The country has trained personnel that can be deployed to support international public health emergencies and there is institutional memory of international deployment taking place." There is, however, no evidence of Zambia making public commitments in this regard. [4] No further information could be found in media sources. Neither is there any publicly available evidence that any Zambian senior leaders (president or ministers) have, in the past 3 years, made a public commitments to improve domestic capacity to address epidemic threats by requesting support to improve capacity. No evidence could be found on the websites of the ministries of Health or Foreign Affairs or the African health observatory (AHO). [1,2,3] The Joint External Evaluation (JEE) report for the Republic of Zambia, completed in August 2017, states that the Ministry of Health is collaborating with in-country partners including the Department for International Development (DFID) for technical and financial support in epidemic preparedness, and WHO for technical and financial support in public health issues, There is, however, no evidence of Zambia making public commitments in this regard. [4] No further information could be found in media sources.

[1] Ministry of Health. [[www.moh.gov.zm](http://www.moh.gov.zm)]. Accessed 4 October 2020.

[2] Ministry of Foreign Affairs. [<http://www.mofa.gov.zm/>]. Accessed 4 October 2020.

[3] African health observatory (AHO). 'Analytical summary - Health financing system [[http://www.who.int/profiles\\_information/index.php/Zambia:Analytical\\_summary\\_-\\_Health\\_financing\\_system](http://www.who.int/profiles_information/index.php/Zambia:Analytical_summary_-_Health_financing_system)]. Accessed 4 October 2020.

[4] World Health Organisation (WHO). 2017. 'Joint External Evaluation of IHR Core capacities of the Republic of Zambia Mission report, 7-11 August 2017'. [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2017.50/en/>]. Accessed 4 October 2020.

### 5.5.4b

Is there evidence that the country has, in the past three years, either:

- Provided other countries with financing or technical support to improve capacity to address epidemic threats?
- Requested financing or technical support from donors to improve the country's domestic capacity to address epidemic threats?

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

**Current Year Score: 1**

There is evidence that the country has invested donor finance to improve its own domestic capacity to address epidemic threats in the past 3 years. There is no publicly available evidence that Zambia has made public commitments to support other countries to improve capacity to address epidemic threats by providing financing in the past three years.

The Joint External Evaluation (JEE) report for the Republic of Zambia, completed in August 2017 makes reference to partners assisting with funding for sample transport and Field Epidemiology Training Programme (FETP) training. [1] The Global Health Security (GHS) Funding Tracking Dashboard indicates that Zambia has, in 2018 and 2019, received and invested approximately \$1.4 billion of donor funding in domestic health sectors that will directly benefit capacity to address epidemic threats, such as for immunization, health workforce development, and laboratory system preparedness. [2]

There is no publicly available evidence that Zambia has made public commitments to support other countries to improve capacity to address epidemic threats by providing financing in the past three years. No evidence could be found on the websites of the ministries of Health or Foreign Affairs or the African health observatory (AHO). [3,4,5]

[1] World Health Organisation (WHO). 2017. 'Joint External Evaluation of IHR Core capacities of the Republic of Zambia Mission report, 7-11 August 2017'. [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2017.50/en/>]. Accessed 25 October 2020.

[2] Global Health Security Funding Tracker. [<https://tracking.ghscosting.org/details/1087/recipient>]. Accessed 25 October 2020.

[3] Ministry of Health. [[www.moh.gov.zm](http://www.moh.gov.zm)]. Accessed 25 October 2020.

[4] Ministry of Foreign Affairs. [<http://www.mofa.gov.zm/>]. Accessed 25 October 2020.

[5] African health observatory (AHO). 'Analytical summary - Health financing system [[http://www.who.int/profiles\\_information/index.php/Zambia:Analytical\\_summary\\_-\\_Health\\_financing\\_system](http://www.who.int/profiles_information/index.php/Zambia:Analytical_summary_-_Health_financing_system)]. Accessed 25 October 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: 0**

2021

Economist Impact analyst qualitative assessment based on official national sources, which vary by country



## 5.6 COMMITMENT TO SHARING OF GENETIC AND BIOLOGICAL DATA AND SPECIMENS

### 5.6.1 Commitment to sharing genetic data, clinical specimens, and/or isolated specimens (biological materials) in both emergency and nonemergency research

#### 5.6.1a

Is there a publicly available plan or policy for sharing genetic data, clinical specimens, and/or isolated specimens (biological materials) along with the associated epidemiological data with international organizations and/or other countries that goes beyond influenza?

Yes = 1, No = 0

Current Year Score: 0

There is no publicly available plan or policy for sharing genetic data, epidemiological data, clinical specimens, and/or isolated specimens (biological materials) with international organizations or other countries that goes beyond influenza. There is no evidence of these on the websites of the Ministries of Health, Agriculture, Livestock and Fisheries, the National Public Health Institute, the University Teaching Hospital, the Centre for Infectious Disease Research in Zambia (CIDRZ) or in the COVID-19 response plan. [1,2,3,4,5,6,7] The Joint External Evaluation (JEE) report for the Republic of Zambia, completed in August 2017, noted the need for both collaboration and sharing of information with other stake holders and Ministries. "Although guidelines and systems existed in some areas, these were not shared with the relevant stakeholders and dialogue between the different sectors was sub-optimal." There is no mechanism in place for laboratory data sharing. [8] An African Academy of Sciences (AAS) research survey, dated 21 September 2020, on genomics research in Zambia states that participants had concerns over sample sharing and export because of possible misuse and, specifically, "the potential for samples and data to be used in ways that reflect badly on Zambia". It also highlighted that "Zambians are currently restricted in their involvement in any kind of health research for which storage, sharing and re-use of data or samples is envisaged." [9]

[1] Ministry of Health. [www.moh.gov.zm]. Accessed 6 January 2019.

[2] Ministry of Agriculture. [www.agriculture.gov.zm]. Accessed 4 October 2020.

[3] Ministry of Livestock and Fisheries. [www.mfl.gov.zm]. Accessed 4 October 2020.

[4] Zambia National Public Health Institute (ZNPHI).2018. Surveillance and Disease Intelligence. <http://znphi.co.zm/surveillance-and-disease-intelligence.html>. Accessed 4 October 2020.

[5] University Teaching Hospital. [<http://www.uth.gov.zm/>]. Accessed 4 October 2020.

[6] Centre for Infectious Disease Research in Zambia (CIDRZ) [<http://www.cidrz.org/>]. Accessed 4 October 2020.

[7] Zambia National Public Health Institute, Ministry of Health. 16 April 2020. 'Zambia's response to COVID-19'. [[https://www.reactgroup.org/wp-content/uploads/2020/04/Session-5d-Ms.-Otridah-Kapona-Zambia\\_-COVID-19\\_16.04.20-.pdf](https://www.reactgroup.org/wp-content/uploads/2020/04/Session-5d-Ms.-Otridah-Kapona-Zambia_-COVID-19_16.04.20-.pdf)]. Accessed 4 October 2020.

[8] World Health Organisation (WHO). 2017. 'Joint External Evaluation of IHR Core capacities of the Republic of Zambia Mission report, 7-11 August 2017'. [<http://www.who.int/ihr/publications/WHO-WHE-CPI-REP-2017.50/en/>]. Accessed 4 October 2020.

[9] African Academy of Sciences (AAS) Open Research 2020. 21 September 2020. 'Policy makers, regulators and researchers' perspectives on genomics research and the capacity of the National Health Research Act of 2013 to regulate genomics research in Zambia'. [[https://d2105gzef9joy6.cloudfront.net/manuscripts/14191/382c39a6-6491-4e0a-96b0-8c8d8d5b3871\\_13092\\_-\\_oliver\\_mweemba.pdf?doi=10.12688/aasopenres.13092.1&numberOfBrowsableCollections=4&numberOfBrowsableInstituti](https://d2105gzef9joy6.cloudfront.net/manuscripts/14191/382c39a6-6491-4e0a-96b0-8c8d8d5b3871_13092_-_oliver_mweemba.pdf?doi=10.12688/aasopenres.13092.1&numberOfBrowsableCollections=4&numberOfBrowsableInstituti)]

onalCollections=0&numberOfBrowsableGateways=4]. Accessed 4 October 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 publicly available evidence that Zambia has not shared 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 year by South Africa, [1] nor did a search for media articles on this produce any results. No further evidence of not sharing could be found in media sources.

[1] World Health Organisation (WHO). 2018. "Virus Sharing." [[http://www.who.int/influenza/pip/virus\\_sharing/en/](http://www.who.int/influenza/pip/virus_sharing/en/)]. Accessed 4 October 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 publicly available evidence that Zambia has not shared pandemic pathogen samples in general, and specifically COVID19 samples, during an outbreak in the past two years. The World Health Organisation has not reported any non-compliance in the past year by Zambia. [1] No further evidence of not sharing could be found in media sources.

[1] World Health Organisation (WHO). 2018. "Virus Sharing." [[http://www.who.int/influenza/pip/virus\\_sharing/en/](http://www.who.int/influenza/pip/virus_sharing/en/)]. Accessed 4 October 2020.

## Category 6: Overall risk environment and vulnerability to biological threats

### 6.1 POLITICAL AND SECURITY RISK

#### 6.1.1 Government effectiveness

##### 6.1.1a

Policy formation (Economist Intelligence score; 0-4, where 4=best)

Input number

Current Year Score: 0

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: 1

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: 33

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: 2

2020

Economist Intelligence

## 6.1.2 Orderly transfers of power

### 6.1.2a

How clear, established, and accepted are constitutional mechanisms for the orderly transfer of power from one government to another?

Very clear, established and accepted = 4, Clear, established and accepted = 3, One of the three criteria (clear, established, accepted) is missing = 2, Two of the three criteria (clear, established, accepted) are missing = 1, Not clear, not established, not accepted = 0

Current Year Score: 2

2021

Economist Intelligence

## 6.1.3 Risk of social unrest

### 6.1.3a

What is the risk of disruptive social unrest?

Very low: Social unrest is very unlikely = 4, Low: There is some prospect of social unrest, but disruption would be very limited = 3, Moderate: There is a considerable chance of social unrest, but disruption would be limited = 2, High: Major social unrest is likely, and would cause considerable disruption = 1, Very high: Large-scale social unrest on such a level as to seriously challenge government control of the country is very likely = 0

Current Year Score: 1

2021

Economist Intelligence

## 6.1.4 Illicit activities by non-state actors

### 6.1.4a

**How likely is it that domestic or foreign terrorists will attack with a frequency or severity that causes substantial disruption?**

No threat = 4, Low threat = 3, Moderate threat = 2, High threat = 1, Very high threat = 0

**Current Year Score: 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: 3**

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: 3

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: 86.75

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: 0.46

2018

United Nations Development Programme (UNDP); The Economist Intelligence Unit

## 6.2.3 Social inclusion

### 6.2.3a

#### Poverty headcount ratio at \$1.90 a day (2011 PPP) (% of population)

Input number

**Current Year Score: 30.7**

2015

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 Central Statistical Office (of Zambia) states in their 'Labour Force Survey 2019 1st Quarter' that those in informal employment are 72% of the total number employed. [1] An October 2018 International Labour Market (ILO) paper on informal labour in Zambia states that "87.5% are informal workers employed in the informal sector." The statistics are from 2015 however. [2]

[1] Central Statistical Office. Labour Force Survey 2019 1st Quarter.

[<https://www.zamstats.gov.zm/phocadownload/Labour/Labour%20Force%20Survey%20Q1%20-%202019.pdf>]. Accessed 4 October 2020.

[2] Informality and Poverty in Zambia - Findings from the 2015 Living Conditions and Monitoring Survey. October 2018.

[[https://www.ilo.org/wcmsp5/groups/public/---africa/---ro-abidjan/---ilo-lusaka/documents/publication/wcms\\_697953.pdf](https://www.ilo.org/wcmsp5/groups/public/---africa/---ro-abidjan/---ilo-lusaka/documents/publication/wcms_697953.pdf)]. Accessed 4 October 2020.

### 6.2.3c

#### Coverage of social insurance programs (% of population)

Scored in quartiles (0-3, where 3=best)

**Current Year Score: 0**

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: 0**

2021

Economist Intelligence Democracy Index

## 6.2.5 Local media and reporting

### 6.2.5a

Is media coverage robust? Is there open and free discussion of public issues, with a reasonable diversity of opinions?

Input number

**Current Year Score: 1**

2021

Economist Intelligence Democracy Index

## 6.2.6 Inequality

### 6.2.6a

**Gini coefficient**

Scored 0-1, where 0=best

**Current Year Score: 0.57**

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: 44.07

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: -2.12

2008-2018

World Bank; Economist Impact

### 6.4.3 Natural disaster risk

#### 6.4.3a

What is the risk that the economy will suffer a major disruption owing to a natural disaster?

Very low = 4, Low = 3, Moderate = 2, High = 1, Very high = 0

Current Year Score: 1

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: 63.51

2018

United Nations; World Bank, UNICEF; Institute for Health Metrics and Evaluation (IHME); Central Intelligence Agency (CIA)  
World Factbook

#### 6.5.1b

Age-standardized NCD mortality rate (per 100 000 population)

Input number

Current Year Score: 679.4

2019

WHO

#### 6.5.1c

Population ages 65 and above (% of total population)

Input number

Current Year Score: 2.12

2019

World Bank

### **6.5.1d**

Prevalence of current tobacco use (% of adults)

Input number

Current Year Score: 14.7

2018

World Bank

### **6.5.1e**

Prevalence of obesity among adults

Input number

Current Year Score: 8.1

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: 59.96

2017

UNICEF; Economist Impact

### **6.5.2b**

Percentage of homes with access to at least basic sanitation facilities

Input number

Current Year Score: 26.37

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: 81.47

2018

WHO Global Health Expenditure database

### 6.5.4 Trust in medical and health advice

#### 6.5.4a

Trust medical and health advice from the government

Share of population that trust medical and health advice from the government , More than 80% = 2, Between 60-80%, or no data available = 1, Less than 60% = 0

Current Year Score: 1

2018

Wellcome Trust Global Monitor 2018

#### 6.5.4b

Trust medical and health advice from medical workers

Share of population that trust medical and health advice from health professionals , More than 80% = 2, Between 60-80%, or no data available = 1, Less than 60% = 0

Current Year Score: 1

2018

Wellcome Trust Global Monitor 2018