

Libya

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

CATEGORY 1: PREVENTING THE EMERGENCE OR RELEASE OF PATHOGENS WITH

POTENTIAL FOR INTERNATIONAL CONCERN	4
1.1 Antimicrobial resistance (AMR)	4
1.2 Zoonotic disease	7
1.3 Biosecurity	13
1.4 Biosafety	19
1.5 Dual-use research and culture of responsible science	22
1.6 Immunization	24
CATEGORY 2: EARLY DETECTION AND REPORTING FOR EPIDEMICS OF POTENTIAL INTERNATIONAL CONCERN	25
2.1 Laboratory systems strength and quality	25
2.2 Laboratory supply chains	27
2.3 Real-time surveillance and reporting	29
2.4 Surveillance data accessibility and transparency	31
2.5 Case-based investigation	35
2.6 Epidemiology workforce	38
CATEGORY 3: RAPID RESPONSE TO AND MITIGATION OF THE SPREAD OF AN EPIDEMIC	40
3.1 Emergency preparedness and response planning	40
3.2 Exercising response plans	43
3.3 Emergency response operation	44
3.4 Linking public health and security authorities	46
3.5 Risk communications	47
3.6 Access to communications infrastructure	50



3.7 Trade and travel restrictions	51
CATEGORY 4: SUFFICIENT AND ROBUST HEALTH SECTOR TO TREAT THE SICK AND P HEALTH WORKERS	ROTECT 52
4.1 Health capacity in clinics, hospitals, and community care centers	52
4.2 Supply chain for health system and healthcare workers	55
4.3 Medical countermeasures and personnel deployment	58
4.4 Healthcare access	59
4.5 Communications with healthcare workers during a public health emergency	61
4.6 Infection control practices and availability of equipment	61
4.7 Capacity to test and approve new medical countermeasures	62
CATEGORY 5: COMMITMENTS TO IMPROVING NATIONAL CAPACITY, FINANCING PLADDRESS GAPS, AND ADHERING TO GLOBAL NORMS	ANS TO
5.1 International Health Regulations (IHR) reporting compliance and disaster risk reduction	64
5.2 Cross-border agreements on public health and animal health emergency response	64
5.3 International commitments	65
5.4 Joint External Evaluation (JEE) and Performance of Veterinary Services Pathway (PVS)	67
5.5 Financing	68
5.6 Commitment to sharing of genetic and biological data and specimens	72
CATEGORY 6: OVERALL RISK ENVIRONMENT AND VULNERABILITY TO BIOLOGICAL T	HREATS
6.1 Political and security risk	73
6.2 Socio-economic resilience	77
6.3 Infrastructure adequacy	79
6.4 Environmental risks	80
6.5 Public health vulnerabilities	81



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

There is evidence of a national AMR plan for the surveillance, detection and reporting of priority AMR pathogens. The World Health Organization (WHO) Library of National Action Plans website states that in 2018, Libya published its action plan "State of Libya, National Action Plan on Prevention and Containment of Antimicrobial Resistance 2019-2023". The plan includes surveillance, detection and reporting of priority AMR pathogens. It states that part of its operational objectives are to "Identify research priorities for AMR surveillance, set up a national surveillance system for antimicrobial resistance, build laboratory capacity to produce high-quality microbiological data for patient management, and support surveillance activities in both human and animal sectors. [1]

The Joint External Evaluation of IHR Core Capacities of Libya Mission Report conducted between 9-15 July 2018 states that " a technical working group from the Ministry of Health (MOH) is currently drafting the AMR national action plan and operational budget, with the support of the WHO Regional Office for the Eastern Mediterranean (EMRO). Once finalized, the plan will be submitted to be endorsed by the Minister of Health." This information confirms what is mentioned in the first source which is more recent. [2]

The Ministry of Health website does not provide information that shows that Libya has a national AMR plan for the surveillance, detection and reporting of priority AMR pathogens. [3]

[1] World Health Organization (WHO) Library of National Action Plans "State of Libya, National Action Plan on Prevention and Containment of Antimicrobial Resistance 2019-2023" (2018)

[http://apps.who.int/datacol/answer_upload.asp?survey_id=666&view_id=722&question_id=13163&answer_id=19958&res pondent_id=267192]. Accessed on 2 August 2020.

[2] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of Libya Mission Report (9 - 15 July 2018)". [https://apps.who.int/iris/bitstream/handle/10665/312106/WHO-WHE-CPI-2019.37-eng.pdf?ua=1]. Accessed on 1 August 2020.

[3] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 1 August 2020.

1.1.1b

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

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



Current Year Score: 0

There is insufficient evidence that Libya's national laboratory system is capable of providing tests for priority AMR pathogens. The State of Libya National Action Plan on Prevention and Containment of Antimicrobial Resistance 2019-2023, published in 2018, states that Libya has a national laboratory called the National Center for Disease Control. The plan does not state if the laboratory is capable of testing for priority AMR pathogens. [1]

The Joint External Evaluation of IHR Core Capacities of Libya Mission Report (JEE report) conducted between 9-15 July 2018 states that "the main needed capacities for detecting, preventing and controlling antimicrobial resistance (AMR) have not yet been established in Libya. The concept of the one health approach has not been activated and reflected in the AMR combat process. Besides, the absence of national guidelines and programs in Infection Prevention & Control (IPC), Surveillance and Antimicrobial Stewardship Programs are major challenges for the human and animal sectors." Although the JEE report indicates that the Libyan government has taken steps to participate in the Global Antimicrobial Resistance Surveillance (GLASS) framework, the GLASS website does not include any data for testing of AMR pathogens in Libya on its website. [2,3] The Ministry of Health website does not provide information that shows that there is a national laboratory/laboratory system, which tests for priority AMR pathogens. [4]

[1] World Health Organization (WHO) Library of National Action Plans "State of Libya, National Action Plan on Prevention and Containment of Antimicrobial Resistance 2019-2023" (2018)

[http://apps.who.int/datacol/answer_upload.asp?survey_id=666&view_id=722&question_id=13163&answer_id=19958&res pondent id=267192]. Accessed on 11 October 2020.

- [2] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of Libya Mission Report (9 15 July 2018)". [https://apps.who.int/iris/bitstream/handle/10665/312106/WHO-WHE-CPI-2019.37-eng.pdf?ua=1]. Accessed on 11 October 2020.
- [3] World Health Organization (WHO). "Global Antimicrobial Resistance and Use Surveillance System (GLASS)". [https://www.who.int/data/gho/data/themes/topics/global-antimicrobial-resistance-surveillance-system-(glass)/GHO/global-antimicrobial-resistance-surveillance-system-(glass)-]. Accessed 20 October 2020.
- [4] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 11 October 2020.

1.1.1c

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

Yes = 1, No = 0

Current Year Score: 0

There is no evidence that the government conducts detection or surveillance activities (e.g. in soil, waterways, etc.) for antimicrobial residues or antimicrobial resistance (AMR) organisms. The State of Libya National Action Plan on Prevention and Containment of Antimicrobial Resistance 2019-2023, published in 2018, states that part of the plan's objectives which are yet to be implemented is to conduct environmental surveillance to detect AMR, but it does not provide information that shows that the government conducts detection or surveillance activities (e.g. in soil, waterways, etc.) for antimicrobial residues or AMR organisms. [1]

The Joint External Evaluation of IHR Core Capacities of Libya Mission Report conducted between 9-15 July 2018 does not provide information that shows the government conducts detection or surveillance activities (e.g. in soil, waterways, etc.) for antimicrobial residues or AMR organisms. [2] The Ministry of Health website does not provide information that shows that the government conducts detection or surveillance activities (e.g. in soil, waterways, etc.) for antimicrobial residues or AMR organisms. [3] The Ministry of Agriculture, Animal Resources and Fisheries website does not provide information that shows



that the government conducts detection or surveillance activities (e.g. in soil, waterways, etc.) for antimicrobial residues or AMR organisms. [4] The National Center for Disease Control website does not provide information that shows that the government conducts detection or surveillance activities (e.g. in soil, waterways, etc.) for antimicrobial residues or AMR organisms. [5]

[1] World Health Organization (WHO) Library of National Action Plans "State of Libya, National Action Plan on Prevention and Containment of Antimicrobial Resistance 2019-2023" (2018)

[http://apps.who.int/datacol/answer_upload.asp?survey_id=666&view_id=722&question_id=13163&answer_id=19958&res pondent id=267192]. Accessed on 01 August 2020.

- [2] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of Libya Mission Report (9 15 July 2018)". [https://apps.who.int/iris/bitstream/handle/10665/312106/WHO-WHE-CPI-2019.37-eng.pdf?ua=1]. Accessed on 01 August 2020.
- [3] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 01 August 2020.
- [4] Ministry of Agriculture, Animal Resources and Fisheries. [https://www.agriculture.gov.ly/]. Accessed on 01 August 2020.
- [5] National Center for Disease Control. [https://ncdc.org.ly/Ar/]. Accessed on 01 August 2020.

1.1.2 Antimicrobial control

1.1.2a

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

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

Current Year Score: 0

There is insufficient evidence of national legislation in place requiring prescriptions for antibiotic use for humans. In Libyan health law number 106, issued in December 1973, article No 91 states that "it is not permissible to give a drug from the pharmacy except by a prescription issued by a doctor who has the right to practice the profession, except for the medicines specified by a decision of the Minister of Health". Antibiotics are not mentioned explicitly here. [1] However, a study entitled "Antimicrobial resistance in Libya: 1970-2011" shows that people can buy antibiotics without a prescription and the law is not enforced. According to the study, "The problem of antibiotic resistance is very serious in Libya. The health authorities in particular and society in general should address this problem urgently. Establishing monitoring systems based on the routine testing of antimicrobial sensitivity and education of healthcare workers, pharmacists, and the community on the health risks associated with the problem and benefits of prudent use of antimicrobials are some steps that can be taken to tackle the problem in the future." The study does not mention the health law and that prescriptions are required by law. [2] Furthermore, the Joint External Evaluation of IHR Core Capacities of Libya Mission Report, conducted between 9-15 July 2018, states that "there is no national plan for an antimicrobial stewardship program (ASP) and there is no actual implementation to the ASP components at healthcare setting level. Antibiotics for use in humans and animals are easy to acquire even without prescription". [3]

The State of Libya National Action Plan on Prevention and Containment of Antimicrobial Resistance 2019-2023, published in 2018, does not provide information that shows there is national legislation or regulation in place requiring prescriptions for antibiotic use for humans. [4] The Ministry of Health website does not provide information that shows that there is a national legislation or regulation in place requiring prescriptions for antibiotic use for humans. [5]

[1] Information & documentation center- Ministry of Health Decree No. 106 of 1973 Promulgating the Health Law [http://www.seha.ly/wp-content/uploads/2018/04/%D8%A7%D9%84%D9%82%D8%A7%D9%86%D9%88%D9%86%D9%88-106.pdf]. Accessed on 10 October 2020.



- [2] Antimicrobial resistance in Libya: 1970-2011 [https://pubmed.ncbi.nlm.nih.gov/23537612/]. Accessed on 10 October 2020.
- [3] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of Libya Mission Report (9 15 July 2018)". [https://apps.who.int/iris/bitstream/handle/10665/312106/WHO-WHE-CPI-2019.37-eng.pdf?ua=1]. Accessed on 10 October 2020.
- [4] World Health Organization (WHO). Library of National Action Plans "State of Libya, National Action Plan on Prevention and Containment of Antimicrobial Resistance 2019-2023" (2018)
- [http://apps.who.int/datacol/answer_upload.asp?survey_id=666&view_id=722&question_id=13163&answer_id=19958&res pondent_id=267192]. Accessed on 10 October 2020.
- [5] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 10 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

Libya does not have national legislation or regulation in place requiring prescriptions for antibiotic use for animals. The Joint External Evaluation of IHR(International Health Regulations) Core Capacities of Libya Mission Report, conducted between 9-15 July 2018, states that "there is no national plan for an antimicrobial stewardship program (ASP) and there is no actual implementation to the ASP components at healthcare setting level. Antibiotics for use in humans and animals are easy to acquire even without prescription". [1] The Ministry of Health website does not provide information that shows that there is a national legislation or regulation in place requiring prescriptions for antibiotic use for animals. [2] The Ministry of Agriculture, Animal Resources and Fisheries website does not provide information that shows that there is a national legislation or regulation in place requiring prescriptions for antibiotic use for animals. [3]

- [1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of Libya Mission Report (9 15 July 2018)". [https://apps.who.int/iris/bitstream/handle/10665/312106/WHO-WHE-CPI-2019.37-eng.pdf?ua=1]. Accessed on 02 August 2020.
- [2] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 02 August 2020.
- [3] Ministry of Agriculture, Animal Resources and Fisheries. [https://www.agriculture.gov.ly/]. Accessed on 02 August 2020.

1.2 ZOONOTIC DISEASE

1.2.1 National planning for zoonotic diseases/pathogens

1.2.1a

Is there national legislation, plans, or equivalent strategy documents on zoonotic disease? Yes = $1 \cdot No = 0$

Current Year Score: 0

There is insufficient evidence that there is a national law, plan, or equivalent strategy document, on zoonotic disease. The Joint External Evaluation of IHR Core Capacities of Libya Mission Report, conducted between 9-15 July 2018, states that "Libya has well-organized, collaborative zoonotic diseases departments in both animal and public health sectors. A memorandum of understanding between the National Center for Disease Control (NCDC) and the National Center for Animal Health (NCAH) exists and is functional. It is concerned with zoonotic diseases surveillance, diagnosis, information sharing, and



staff capacity building." However, the report does not provide more information about a national law, plan, or equivalent strategy document in place. [1]

The Ministry of Health website does not provide information that shows that there is a national law, plan, or equivalent strategy document, on zoonotic disease. [2] The Ministry of Agriculture, Animal Resources and Fisheries website does not provide information that shows that there is a national law, plan, or equivalent strategy document, on zoonotic disease. [3] The World Organization for Animal Health (OIE) PVS Evaluation Reports website does not list Libya as one of the countries that has a PVS Evaluation report that is publicly available and does not provide information that shows that there is a national law, plan, or equivalent strategy document, on zoonotic disease. [4]

- [1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of Libya Mission Report (9 15 July 2018)". [https://apps.who.int/iris/bitstream/handle/10665/312106/WHO-WHE-CPI-2019.37-eng.pdf?ua=1]. Accessed on 01 August 2020.
- [2] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 01 August 2020.
- [3] Ministry of Agriculture, Animal Resources and Fisheries. [https://www.agriculture.gov.ly/]. Accessed on 01 August 2020.
- [4] World Organization for Animal Health (OIE). "OIE PVS Evaluation Reports" [http://www.oie.int/solidarity/pvs-evaluations/pvs-evaluation-reports/]. Accessed on 01 August 2020.

1.2.1b

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

Yes = 1, No = 0

Current Year Score: 0

There is insufficient evidence that there is national legislation, plans or equivalent strategy document(s) that include measures for risk identification and reduction for zoonotic disease spillover events from animals to humans.

The Joint External Evaluation of IHR Core Capacities of Libya Mission Report, conducted between 9-15 July 2018, states that "The National Center for Disease Control (NCDC) has a reporting system - the Disease Surveillance System - to report zoonotic diseases on an immediate, weekly and monthly basis. The National Center for Animal Health (NCAH) reports zoonotic diseases on an immediate, weekly and monthly schedule. Five high priority zoonotic diseases, in terms of public health concern, have been identified in the country using public health and animal health notification lists: Rabies, Brucellosis, TB, Avian Influenza and Plague. A memorandum of understanding between The National Center for Disease Control (NCDC) and National Center for Animal Health (NCAH) exists and is functional. It is concerned with zoonotic diseases surveillance, diagnosis, information sharing, and staff capacity building." [1] There is no mention of measures for risk identification and reduction for zoonotic disease spillover events from animals to humans.

The Ministry of Health website provides no information that shows there are national legislation, plans or equivalent strategy document(s) that include measures for risk identification and reduction for zoonotic disease spillover events from animals to humans [2] nor does the Ministry of Agriculture, Animal Resources and Fisheries website [3] or the World Organization for Animal Health (OIE) PVS Evaluation Reports website [4] provide such information.

- [1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of Libya Mission Report (9 15 July 2018)". [https://apps.who.int/iris/bitstream/handle/10665/312106/WHO-WHE-CPI-2019.37-eng.pdf?ua=1]. Accessed on 03 August 2020.
- [2] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 03 August 2020.
- [3] Ministry of Agriculture, Animal Resources and Fisheries. [https://www.agriculture.gov.ly/]. Accessed on 03 August 2020.



[4] World Organization for Animal Health (OIE). "OIE PVS Evaluation Reports" [http://www.oie.int/solidarity/pvs-evaluations/pvs-evaluation-reports/]. Accessed on 03 August 2020

1.2.1c

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

Yes = 1, No = 0

Current Year Score: 0

Although there is evidence that there are guidelines for the surveillance of multiple zoonotic pathogens of public health concern, there is no evidence regarding control strategies. The Joint External Evaluation of IHR Core Capacities of Libya Mission Report conducted between 9-15 July 2018 states that: "The National Center for Disease Control (NCDC) has a reporting system - the Disease Surveillance System - to report zoonotic diseases on an immediate, weekly and monthly basis. National Center for Animal Health (NCAH) reports zoonotic diseases on an immediate, weekly and monthly schedule as well. Five high priority zoonotic diseases, in terms of public health concern, have been identified in the country using public health and animal health notification lists: Rabies, Brucellosis, Tuberculosis, Avian Influenza and Plague. A memorandum of understanding between The National Center for Disease Control (NCDC) and National Center for Animal Health (NCAH) exists and is functional. It is concerned with zoonotic diseases surveillance, diagnosis, sharing information, and building staff capacity" [1]. The Ministry of Health website does not provide information that shows that there are national plans, guidelines or laws that account for the surveillance and control of multiple zoonotic pathogens of public health concern [2]. The Ministry of Agriculture, Animal Resources and Fisheries website does not provide information that shows that there are national plans, guidelines, or laws that account for the surveillance and control of multiple zoonotic pathogens of public health concern [3]. The World Organization for Animal Health (OIE) PVS Evaluation Reports website does not list Libya as one of the countries that has a PVS Evaluation report that is publicly available and does not provide information that shows that there are national plans, guidelines, or laws that account for the surveillance and control of multiple zoonotic pathogens of public health concern [4].

- [1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of Libya Mission Report (9 15 July 2018)". [https://apps.who.int/iris/bitstream/handle/10665/312106/WHO-WHE-CPI-2019.37-eng.pdf?ua=1]. Accessed on 02 August 2020.
- [2] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 02 August 2020.
- [3] Ministry of Agriculture, Animal Resources and Fisheries. [https://www.agriculture.gov.ly/]. Accessed on 02 August 2020.
- [4] World Organization for Animal Health (OIE). "OIE PVS Evaluation Reports" [http://www.oie.int/solidarity/pvs-evaluations/pvs-evaluation-reports/]. Accessed on 02 August 2020.

1.2.1d

Is there a department, agency, or similar unit dedicated to zoonotic disease that functions across ministries? Yes = 1, No = 0

Current Year Score: 0

Although there is evidence that there is collaboration between relevant agencies, there is no evidence of an agency dedicated to zoonotic disease that functions across ministries. The Joint External Evaluation of IHR Core Capacities of Libya Mission Report conducted between 9-15 July 2018 states that "in 2015, the National Center for Disease Control (NCDC) and the National Center for Animal Health (NCAH) signed an Agreement (2016) for coordination in zoonotic disease events. There is information exchange between animal and human health surveillance units, laboratories, and other relevant sectors



regarding potential zoonotic risks and urgent zoonotic events. NCDC regularly communicates and exchanges reports with the NCAH". [1] The Ministry of Health website does not provide information that shows that there is a department, agency or similar unit dedicated to zoonotic disease that functions across ministries. [2] The Ministry of Agriculture, Animal Resources and Fisheries website does not provide information that shows that there is a department, agency or similar unit dedicated to zoonotic disease that functions across ministries. [3] The World Organization for Animal Health (OIE) PVS Evaluation Reports website does not list Libya as one of the countries that has a PVS Evaluation report that is publicly available and does not provide information that shows that there is a department, agency or similar unit dedicated to zoonotic disease that functions across ministries. [4]

- [1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of Libya Mission Report (9 15 July 2018)". [https://apps.who.int/iris/bitstream/handle/10665/312106/WHO-WHE-CPI-2019.37-eng.pdf?ua=1]. Accessed on 02 August 2020.
- [2] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 02 August 2020.
- [3] Ministry of Agriculture, Animal Resources and Fisheries. [https://www.agriculture.gov.ly/]. Accessed on 02 August 2020
- [4] World Organization for Animal Health (OIE). "OIE PVS Evaluation Reports" [http://www.oie.int/solidarity/pvs-evaluations/pvs-evaluation-reports/]. Accessed on 02 August 2020.

1.2.2 Surveillance systems for zoonotic diseases/pathogens

1.2.2a

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

Yes = 1, No = 0

Current Year Score: 0

There is no evidence that the country has a national mechanism (either voluntary or mandatory) for owners of livestock to conduct and report on disease surveillance to a central government agency. The Joint External Evaluation of IHR Core Capacities of Libya Mission Report conducted between 9-15 July 2018 does not provide information that shows that the country has a national mechanism (either voluntary or mandatory) for owners of livestock to conduct and report on disease surveillance to a central government agency. [1] The Ministry of Health website does not provide information that shows that the country has a national mechanism (either voluntary or mandatory) for owners of livestock to conduct and report on disease surveillance to a central government agency. [2] The Ministry of Agriculture, Animal Resources and Fisheries website does not provide information that shows that the country has a national mechanism (either voluntary or mandatory) for owners of livestock to conduct and report on disease surveillance to a central government agency. [3] The World Organization for Animal Health (OIE) PVS Evaluation Reports website does not list Libya as one of the countries that has a PVS Evaluation report that is publicly available and does not provide information that shows that the country has a national mechanism (either voluntary or mandatory) for owners of livestock to conduct and report on disease surveillance to a central government agency. [4]

- [1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of Libya Mission Report (9 15 July 2018)". [https://apps.who.int/iris/bitstream/handle/10665/312106/WHO-WHE-CPI-2019.37-eng.pdf?ua=1]. Accessed on 02 August 2020.
- [2] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 02 August 2020.
- [3] Ministry of Agriculture, Animal Resources and Fisheries. [https://www.agriculture.gov.ly/]. Accessed on 02 August 2020.
- [4] World Organization for Animal Health (OIE). "OIE PVS Evaluation Reports" [http://www.oie.int/solidarity/pvs-



evaluations/pvs-evaluation-reports/]. Accessed on 02 August 2020.

1.2.2b

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

Yes = 1, No = 0

Current Year Score: 0

There is no evidence that there are laws or guidelines that safeguard the confidentiality of information generated through surveillance activities for animals (for owners). The Joint External Evaluation of IHR Core Capacities of Libya Mission Report conducted between 9-15 July 2018 does not provide information that shows that there are laws or guidelines that safeguard the confidentiality of information generated through surveillance activities for animals (for owners). [1] The Ministry of Health website does not provide information that shows that there are laws or guidelines that safeguard the confidentiality of information generated through surveillance activities for animals (for owners). [2] The Ministry of Agriculture, Animal Resources and Fisheries website does not provide information that shows that there are laws or guidelines that safeguard the confidentiality of information generated through surveillance activities for animals (for owners). [3] The World Organization for Animal Health (OIE) PVS Evaluation Reports website does not list Libya as one of the countries that has a PVS Evaluation report that is publicly available and does not provide information that shows that there are laws or guidelines that safeguard the confidentiality of information generated through surveillance activities for animals (for owners). [4]

- [1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of Libya Mission Report (9 15 July 2018)". [https://apps.who.int/iris/bitstream/handle/10665/312106/WHO-WHE-CPI-2019.37-eng.pdf?ua=1]. Accessed on 02 August 2020.
- [2] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 02 August 2020.
- [3] Ministry of Agriculture, Animal Resources and Fisheries. [https://www.agriculture.gov.ly/]. Accessed on 02 August 2020.
- [4] World Organization for Animal Health (OIE). "OIE PVS Evaluation Reports" [http://www.oie.int/solidarity/pvs-evaluations/pvs-evaluation-reports/]. Accessed on 02 August 2020.

1.2.2c

Does the country conduct surveillance of zoonotic disease in wildlife (e.g., wild animals, insects, other disease vectors)? Yes = 1, No = 0

Current Year Score: 0

Libya does not conduct surveillance of zoonotic disease in wildlife (e.g. wild animals, insects, other disease vectors, etc.). The Joint External Evaluation of IHR Core Capacities of Libya Mission Report conducted between 9-15 July 2018 states that "Wildlife and environmental diseases are not included in the coordination" which is between National Center for Animal Health (NCAH) and National Center for Disease Control (NCDC) for conducting surveillance. [1] The Ministry of Health website does not provide information that shows that the country conducts surveillance of zoonotic disease in wildlife (e.g. wild animals, insects, other disease vectors, etc.). [2] The Ministry of Agriculture, Animal Resources and Fisheries website does not provide information that shows that the country conducts surveillance of zoonotic disease in wildlife (e.g. wild animals, insects, other disease vectors, etc.). [3] The World Organization for Animal Health (OIE) PVS Evaluation Reports website does not list Libya as one of the countries that has a PVS Evaluation report that is publicly available and does not provide information that shows that the country conducts surveillance of zoonotic disease in wildlife (e.g. wild animals, insects, other disease vectors, etc.). [4]



- [1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of Libya Mission Report (9 15 July 2018)". [https://apps.who.int/iris/bitstream/handle/10665/312106/WHO-WHE-CPI-2019.37-eng.pdf?ua=1]. Accessed on 03 August 2020.
- [2] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 03 August 2020.
- [3] Ministry of Agriculture, Animal Resources and Fisheries. [https://www.agriculture.gov.ly/]. Accessed on 03 August 2020.
- [4] World Organization for Animal Health (OIE). "OIE PVS Evaluation Reports" [http://www.oie.int/solidarity/pvs-evaluations/pvs-evaluation-reports/]. Accessed on 03 August 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 insufficient evidence that there is a national law, plan, or equivalent strategy document, on zoonotic disease and therefore no evidence of there being a mechanism for working with the private sector in controlling or responding to zoonoses. The Joint External Evaluation of IHR Core Capacities of Libya Mission Report conducted between 9-15 July 2018 states that "Libya has well-organized, collaborative zoonotic diseases departments at both animal and public health sectors. Memorandum of understanding between the National Center for Disease Control (NCDC) and National Center for Animal Health (NCAH) exists and is functional. It is concerned with zoonotic diseases surveillance, diagnosis, sharing information, building staff capacity." The report does not provide more information. [1] The Food and Agriculture Organization (FAO) Regional Office for Near East and North Africa Allocates US\$250 thousand to Libya's fight against deadly zoonotic diseases. "The Emergency Assistance for Outbreaks of Deadly Zoonotic Disease (HPAI, RVF, Rabies) in Libya aims to carry out life-saving activities in Benghazi, Derna, Sirte and Sabha within nine months. Funds will be utilized to respond to zoonotic and transboundary diseases (i.e. Highly Pathogenic Avian Influenza (HPAI) and Rabies outbreaks and the risk of introduction of Rift Valley fever)" The article does not provide more information. [2] The Ministry of Health website does not provide information that shows that there is a national law, plan, or equivalent strategy document, on zoonotic disease. [3] The Ministry of Agriculture, Animal Resources and Fisheries website mentions in an article that there is a work plan between the Ministry and the FAO for rising awareness of HPAI. The article does not provide more information. [4] The World Organization for Animal Health (OIE) PVS Evaluation Reports website does not list Libya as one of the countries that has a PVS Evaluation report that is publicly available and does not provide information that shows that there is a national law, plan, or equivalent strategy document, on zoonotic disease. [5]

- [1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of Libya Mission Report (9 15 July 2018)". [https://apps.who.int/iris/bitstream/handle/10665/312106/WHO-WHE-CPI-2019.37-eng.pdf?ua=1]. Accessed on 03 August 2020
- [2] Food and Agricultural Organization of the United Nations. "UN allocates US\$250,000 to Libya's fight against deadly zoonotic diseases". [http://www.fao.org/neareast/news/view/en/c/1162771/]. Accessed on 03 August 2020.
- [3] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 03 August 2020.
- [4] Ministry of Agriculture, Animal Resources and Fisheries. [https://www.agriculture.gov.ly/2020/1308]. Accessed on 03 August 2020.
- [5] World Organization for Animal Health (OIE). "OIE PVS Evaluation Reports" [http://www.oie.int/solidarity/pvs-evaluations/pvs-evaluation-reports/]. Accessed on 03 August 2020.

1.3 BIOSECURITY

1.3.1 Whole-of-government biosecurity systems

1.3.1a

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

Yes = 1, No = 0

Current Year Score: 0

There is insufficient evidence that the country has in place a record, updated within the past 5 years of the facilities in which especially dangerous pathogens and toxins are stored or processed, including details on inventories and inventory



management systems of those facilities. The Joint External Evaluation of IHR Core Capacities of Libya Mission Report conducted between 9-15 July 2018 states that "Establishing an inventory of biohazardous materials and establishing regulations on their handling is a much-needed step". [1] No information on the establishment of such a record is available through the websites for the Ministry of Health or the Ministry of Agriculture, Animal Resources and Fisheries. [2,3] The website for the Ministry of Defense was not available at the time of research. Although Libya has submitted a Confidence Building Measures report to the United Nations Biological Weapons Convention portal, it is not publicly available and therefore it is unknown whether it includes details on the existence of such a record. [4] Similarly, the Verification Research, Training and Information Center (VERTIC) website does not have information on the existence of such a record. [5]

- [1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of Libya Mission Report (9 15 July 2018)". [https://apps.who.int/iris/bitstream/handle/10665/312106/WHO-WHE-CPI-2019.37-eng.pdf?ua=1]. Accessed on 11 October 2020.
- [2] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 11 October 2020.
- [3] Ministry of Agriculture, Animal Resources and Fisheries. [https://www.agriculture.gov.ly/]. Accessed on 11 October 2020.
- [4] United Nations Office at Geneva (UNOG). "Confidence Building Measures". [https://bwc-ecbm.unog.ch/state/libya/]. Accessed on 11 October 2020.
- [5] Verification Research, Training and Information Center (VERTIC). "Legislation database".
- [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/l/]. Accessed on 11 October 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 evidence that the country has 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. The Joint External Evaluation of IHR Core Capacities of Libya Mission Report conducted between 9-15 July 2018 states that "The Libyan National Committee for Biosafety and Bioethics (LNCBB) has drafted national legislations for biosafety and biosecurity and biosafety guidelines." However, this has not been approved yet. [1] The Ministry of Health website does not provide information that shows that the country has 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. [2] The Ministry of Agriculture, Animal Resources and Fisheries website does not provide information that shows that the country has 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. [3] The United Nation Confidence Building Measures website lists Libya among the countries that submitted Confidence-Building Measure reports in 2019 but the report is not publicly available, and therefore it does not provide information that shows that the country has 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. [4] The Verification Research, Training and Information Center (VERTIC) website does not provide information that shows that the country has 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. [5] The website of the Ministry of Defense is no longer available.

- [1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of Libya Mission Report (9 15 July 2018)". [https://apps.who.int/iris/bitstream/handle/10665/312106/WHO-WHE-CPI-2019.37-eng.pdf?ua=1]. Accessed on 03 August 2020.
- [2] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 03 August 2020.
- [3] Ministry of Agriculture, Animal Resources and Fisheries. [https://www.agriculture.gov.ly/]. Accessed on 03 August 2020.
- [4] United Nations Office at Geneva (UNOG). "Confidence Building Measures". [https://bwc-ecbm.unog.ch/state/libya/]. Accessed on 03 August 2020.
- [5] Verification Research, Training and Information Center (VERTIC). "Legislation database".
- [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/l/]. Accessed on 05 August 2020

1.3.1c

Is there an established agency (or agencies) responsible for the enforcement of biosecurity legislation and regulations? Yes = 1, No = 0

Current Year Score: 0

There is no evidence that there is an established agency (or agencies) responsible for the enforcement of biosecurity legislation and regulations. The Joint External Evaluation of IHR Core Capacities of Libya Mission Report conducted between 9-15 July 2018 states that "The Libyan national Committee for Biosafety and Bioethics (LNCBB) has drafted national legislation for biosafety and biosecurity and biosafety guidelines" but it has not been approved yet so there is no agency responsible for enforcement. [1] The Ministry of Health website does not provide information that shows that there is an established agency (or agencies) responsible for the enforcement of biosecurity legislation and regulations. [2] The Ministry of Agriculture, Animal Resources and Fisheries website does not provide information that shows that there is an established agency (or agencies) responsible for the enforcement of biosecurity legislation and regulations. [3] The Verification Research, Training and Information Center (VERTIC) website does not provide information that shows that there is an established agency (or agencies) responsible for the enforcement of biosecurity legislation and regulations. [4] The United Nation Confidence Building Measures website shows that Libya submitted Confidence-Building Measure reports in 2019 but it is not available to the public, and therefore it does not provide information that shows that there is an established agency (or agencies) responsible for the enforcement of biosecurity legislation and regulations. [5] The website of the Ministry of Defense is no longer available.

- [1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of Libya Mission Report (9 15 July 2018)". [https://apps.who.int/iris/bitstream/handle/10665/312106/WHO-WHE-CPI-2019.37-eng.pdf?ua=1]. Accessed on 05 August 2020.
- [2] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 05 August 2020.
- [3] Ministry of Agriculture, Animal Resources and Fisheries. [https://www.agriculture.gov.ly/]. Accessed on 05 August 2020.
- [4] Verification Research, Training and Information Center (VERTIC). "Legislation database".
- [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/l/]. Accessed on 05 August 2020.
- [5] United Nations Office at Geneva (UNOG). "Confidence Building Measures". [https://bwc-ecbm.unog.ch/state/libya/]. Accessed on 11 October 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 evidence that Libya has taken action to consolidate its inventories of especially dangerous pathogens and toxins into a minimum number of facilities. The Joint External Evaluation of IHR Core Capacities of Libya Mission Report, conducted between 9-15 July 2018, does not provide information that shows that the country has taken action to consolidate its inventories of especially dangerous pathogens and toxins into a minimum number of facilities [1] nor was such information found on the websites of the Ministry of Health or Ministry of Agriculture, Animal Resources and Fisheries [2, 3] The United Nation Confidence Building Measures website lists Libya among the countries that submitted Confidence-Building Measure reports in 2019 but information therein is not available to the public, and therefore it does not provide information that shows that the country has taken action to consolidate its inventories of especially dangerous pathogens and toxins. [4] The Verification Research, Training and Information Center (VERTIC) website does not provide information that shows that the country has taken action to consolidate its inventories of especially dangerous pathogens and toxins into a minimum number of facilities. [5] The website of the Ministry of Defense is no longer available.

- [1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of Libya Mission Report (9 15 July 2018)". [https://apps.who.int/iris/bitstream/handle/10665/312106/WHO-WHE-CPI-2019.37-eng.pdf?ua=1]. Accessed on 04 August 2020.
- [2] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 04 August 2020.
- [3] Ministry of Agriculture, Animal Resources and Fisheries. [https://www.agriculture.gov.ly/]. Accessed on 04 August 2020.
- [4] United Nations Office at Geneva (UNOG). "Confidence Building Measures". [https://bwc-ecbm.unog.ch/state/libya/]. Accessed on 04 August 2020.
- [5] Verification Research, Training and Information Center (VERTIC). "Legislation database".
- [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/l/]. Accessed on 05 August 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 evidence that there is in-country capacity to conduct Polymerase Chain Reaction (PCR)-based diagnostic testing for anthrax and/or Ebola, which would preclude culturing a live pathogen. The Joint External Evaluation of IHR Core Capacities of Libya Mission Report, conducted between 9-15 July 2018, states that "From among the 10 core tests, laboratories in Libya are capable of carrying out PCR tests for Influenza virus" but it does not state that they are capable for testing for anthrax and/or Ebola. [1] The Ministry of Health and Ministry of Agriculture, Animal Resources and Fisheries websites do not provide information that shows that there is an in-country capacity to conduct Polymerase Chain Reaction (PCR)-based diagnostic testing for anthrax and/or Ebola, which would preclude culturing a live pathogen. [2, 3] The website of the Ministry of Defense is no longer available.



- [1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of Libya Mission Report (9 15 July 2018)". [https://apps.who.int/iris/bitstream/handle/10665/312106/WHO-WHE-CPI-2019.37-eng.pdf?ua=1]. Accessed on 04 September 2020.
- [2] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 04 September 2020.
- [3] Ministry of Agriculture, Animal Resources and Fisheries. [https://www.agriculture.gov.ly/]. Accessed on 04 September 2020.

1.3.2 Biosecurity training and practices

1.3.2a

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

Yes = 1, No = 0

Current Year Score: 0

There is insufficient evidence that Libya 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. The Joint External Evaluation of IHR Core Capacities of Libya Mission Report, conducted between 9-15 July 2018, states that "Biosafety and biosecurity training programs have been implemented recently with the assistance of the World Health Organization (WHO), World Organization for Animal Health (OIE), Georgetown University and Sandia National Laboratories. A Biorisk Management (BRM) course at university level has been adopted as part of curricula." [1] However, these courses do not appear to be requirements. The websites of the Ministry of Health and Ministry of Agriculture, Animal Resources and Fisheries do not provide information that shows that the country requires such biosecurity training for personnel working in facilities housing or working with especially dangerous pathogens, toxins, or biological materials with pandemic potential. [2, 3] The United Nation Confidence Building Measures website lists Libya among the countries that submitted Confidence-Building Measures reports in 2019, but it is not available to the public, and therefore does not provide information that shows Libya requires standardized biosecurity training for personnel working in facilities housing or working with especially dangerous pathogens, toxins, or biological materials with pandemic potential. [4] There is also no such information on the Verification Research, Training and Information Center (VERTIC) database website. [5] The website of the Ministry of Defense is no longer available.

- [1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of Libya Mission Report (9 15 July 2018)". [https://apps.who.int/iris/bitstream/handle/10665/312106/WHO-WHE-CPI-2019.37-eng.pdf?ua=1]. Accessed on 05 August 2020.
- [2] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 05 August 2020.
- [3] Ministry of Agriculture, Animal Resources and Fisheries. [https://www.agriculture.gov.ly/]. Accessed on 05 August 2020.
- [4] United Nations Office at Geneva (UNOG). "Confidence Building Measures". [https://bwc-ecbm.unog.ch/state/libya/]. Accessed on 05 August 2020.
- [5] Verification Research, Training and Information Center (VERTIC). "Legislation database". [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/l/]. Accessed on 05 August 2020



1.3.3 Personnel vetting: regulating access to sensitive locations

1.3.3a

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

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

Current Year Score: 0

There is no evidence that 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. The Joint External Evaluation of IHR Core Capacities of Libya Mission Report, conducted between 9-15 July 2018, does not provide such information [1] nor could evidence of relevant regulations of licensing conditions be found on the websites of the Ministry of Health, Ministry of Agriculture, Animal Resources and Fisheries, or National Center for Disease Control - Libya website. [2, 3, 4] The United Nation Confidence Building Measures website lists Libya among the countries that submitted Confidence-Building Measure reports in 2019 but it is not available to public, and therefore does not provide any further information on the subject. [5] The Verification Research, Training and Information Center (VERTIC) website also provides no such evidence.[6] The website of the Ministry of Defense is no longer available.

- [1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of Libya Mission Report (9 15 July 2018)". [https://apps.who.int/iris/bitstream/handle/10665/312106/WHO-WHE-CPI-2019.37-eng.pdf?ua=1]. Accessed on 03 August 2020.
- [2] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 03 August 2020.
- [3] Ministry of Agriculture, Animal Resources and Fisheries. [https://www.agriculture.gov.ly/]. Accessed on 03 August 2020.
- [4] United Nations Office at Geneva (UNOG). "Confidence Building Measures". [https://bwc-ecbm.unog.ch/state/libya/]. Accessed on 03 August 2020.
- [5] Verification Research, Training and Information Center (VERTIC). "Legislation database".
- [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/I/]. Accessed on 05 August 2020

1.3.4 Transportation security

1.3.4a

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

Yes = 1, No = 0

Current Year Score: 0

There is no evidence that the country has publicly available information on national regulations on the safe and secure transport of infectious substances (Categories A and B). No such evidence could be found on the websites of the Ministry of Health, Ministry of Agriculture, Animal Resources and Fisheries, Libyan Wings airlines, AFRIQIYAH airways, or General Transportation Authority. [1, 2, 3, 4, 5] The United Nation Confidence Building Measures website lists Libya among the countries that submitted a Confidence-Building Measures report in 2019 but it is not available to public, and therefore provide no further evidence. [6] The Verification Research, Training and Information Center (VERTIC) website does not



provide information that shows Libya has publicly available information on national regulations on the safe and secure transport of infectious substances (Categories A and B). [7] The website of the Ministry of Defense is no longer available.

- [1] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 05 August 2020.
- [2] Ministry of Agriculture, Animal Resources and Fisheries. [https://www.agriculture.gov.ly/]. Accessed on 05 August 2020.
- [3] Libyan Wings. [https://libyanwings.ly/]. Accessed on 05 August 2020.
- [4] AFRIQIYAH airways. [https://www.afriqiyah.aero/en/]. Accessed on 05 August 2020.
- [5] General Transportation Authority. "News". [https://gpttly.com/]. Accessed on 05 August 2020.
- [6] United Nations Office at Geneva (UNOG). "Confidence Building Measures". [https://bwc-ecbm.unog.ch/state/libya/]. Accessed on 05 August 2020.
- [7] Verification Research, Training and Information Center (VERTIC). "Legislation database".

[https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/l/]. Accessed on 05 August 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 evidence that there is a national legislation, regulation, or other guidance in place to oversee the cross-border transfer and end-user screening of especially dangerous pathogens, toxins and pathogens with pandemic potential. No such evidence could be found on the websites of the Ministry of Health or Ministry of Agriculture, Animal Resources and Fisheries. [1, 2] The United Nation Confidence Building Measures website lists Libya among the countries that submitted a Confidence-Building Measures report in 2019 but it is not available to public, and therefore provides no further evidence. [3] The Verification Research, Training and Information Center (VERTIC) website also provides no evidence on the matter. [4] The website of the Ministry of Defense is no longer available.

- [1] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 06 August 2020.
- [2] Ministry of Agriculture, Animal Resources and Fisheries. [https://www.agriculture.gov.ly/]. Accessed on 06 August 2020.
- [3] United Nations Office at Geneva (UNOG). "Confidence Building Measures". [https://bwc-ecbm.unog.ch/state/libya/]. Accessed on 05 August 2020.
- [4] Verification Research, Training and Information Center (VERTIC). "Legislation database."

[https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/I/]. Accessed on 05 August 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 evidence that the country has in place national biosafety legislation and/or regulations. The Joint External Evaluation of IHR Core Capacities of Libya Mission Report, conducted between 9-15 July 2018, states that "The Libyan national Committee for Biosafety and Bioethics (LNCBB) has representation from all relevant stakeholders. The LNCBB, in collaboration with relevant national and international agencies, has drafted national legislations for biosafety and biosacurity and biosafety guidelines." [1] However, this legislation has not yet been implemented. The Ministry of Health and Ministry of Agriculture, Animal Resources and Fisheries websites do not provide information that shows that the country has in place national biosafety legislation and/or regulations. [2, 3] The United Nation Confidence Building Measures website lists Libya among the countries that submitted a Confidence-Building Measures report in 2019 but it is not available to public, so therefore provides no further evidence. [4] The Verification Research, Training and Information Center (VERTIC) website also provides no evidence on the matter. [5] The website of the Ministry of Defense is no longer available.

- [1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of Libya Mission Report (9 15 July 2018)". [https://apps.who.int/iris/bitstream/handle/10665/312106/WHO-WHE-CPI-2019.37-eng.pdf?ua=1]. Accessed on 07 August 2020.
- [2] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 07 August 2020.
- [3] Ministry of Agriculture, Animal Resources and Fisheries. [https://www.agriculture.gov.ly/]. Accessed on 07 August 2020.
- [4] United Nations Office at Geneva (UNOG). "Confidence Building Measures". [https://bwc-ecbm.unog.ch/state/libya/]. Accessed on 07 August 2020.
- [5] Verification Research, Training and Information Center (VERTIC). "Legislation database".

[https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/l/]. Accessed on 05 August 2020.

1.4.1b

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

Yes = 1, No = 0

Current Year Score: 0

As there is insufficient evidence of there being biosafety legislation in place, there is also no evidence that there is an established agency responsible for the enforcement of biosafety legislation and regulations. The Joint External Evaluation of IHR Core Capacities of Libya Mission Report, conducted between 9-15 July 2018, states that "The Libyan national Committee for Biosafety and Bioethics (LNCBB) has representation from all relevant stakeholders. The LNCBB, in collaboration with relevant national and international agencies, has drafted national legislations for biosafety and biosecurity and biosafety guidelines." [1] However, this legislation is not yet implemented. The websites of the Ministry of Health or Ministry and Agriculture, Animal Resources and Fisheries do not provide information that shows that there is an established agency responsible for the enforcement of biosafety legislation and regulations in Libya. [2, 3] The United Nation Confidence Building Measures website lists Libya among the countries that submitted a Confidence-Building Measures report in 2019 but it is not available to public, and as such provides no evidence. [4] The Verification Research, Training and Information Center (VERTIC) website also provides no evidence on the matter. [5] The website of the Ministry of Defense is no longer available.

- [1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of Libya Mission Report (9 15 July 2018)". [https://apps.who.int/iris/bitstream/handle/10665/312106/WHO-WHE-CPI-2019.37-eng.pdf?ua=1]. Accessed on 07 August 2020.
- [2] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 07 August 2020.
- [3] Ministry of Agriculture, Animal Resources and Fisheries. [https://www.agriculture.gov.ly/]. Accessed on 07 August 2020.



[4] United Nations Office at Geneva (UNOG). "Confidence Building Measures". [https://bwc-ecbm.unog.ch/state/libya/]. Accessed on 07 August 2020.

[5] Verification Research, Training and Information Center (VERTIC). "Legislation database".

[https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/l/]. Accessed on 05 August 2020.

1.4.2 Biosafety training and practices

1.4.2a

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

Yes = 1. No = 0

Current Year Score: 0

There is insufficient evidence that Libya requires biosafety training, using a standardized, required approach, such as through a common curriculum or a train-the-trainer program, for personnel working in facilities housing or working with especially dangerous pathogens, toxins, or biological materials with pandemic potential. The Joint External Evaluation of IHR Core Capacities of Libya Mission Report, conducted between 9-15 July 2018, states that "Biosafety and biosecurity training programs have been implemented recently with the assistance of World Health Organization (WHO), World Organization for Animal Health (OIE), Georgetown University and Sandia National Laboratories. A Biorisk Management (BRM) course at university level has been adopted as part of curricula." [1] However, there is no evidence that this training is required or mandatory. The websites of the Ministry of Health and Ministry of Agriculture, Animal Resources and Fisheries do not provide information that shows Libya requires such biosafety training for personnel working in facilities housing or working with especially dangerous pathogens, toxins, or biological materials with pandemic potential. [2, 3] The United Nation Confidence Building Measures website lists Libya among the countries that submitted Confidence-Building Measures reports in 2019, but it is not available to the public, and therefore does not provide information that shows Libya requires standardized biosafety training for personnel working in facilities housing or working with especially dangerous pathogens, toxins, or biological materials with pandemic potential. [4] There is also no such information on the Verification Research, Training and Information Center (VERTIC) database or the National Center for Disease Control (the national laboratory system) websites [5, 6] The website of the Ministry of Defense is no longer available.

- [1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of Libya Mission Report (9 15 July 2018)". [https://apps.who.int/iris/bitstream/handle/10665/312106/WHO-WHE-CPI-2019.37-eng.pdf?ua=1]. Accessed on 07 August 2020.
- [2] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 07 August 2020.
- [3] Ministry of Agriculture, Animal Resources and Fisheries. [https://www.agriculture.gov.ly/]. Accessed on 07 August 2020.
- [4] United Nations Office at Geneva (UNOG). "Confidence Building Measures". [https://bwc-ecbm.unog.ch/state/libya/]. Accessed on 07 August 2020.
- [5] Verification Research, Training and Information Center (VERTIC). "Legislation database".
- [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/l/]. Accessed on 05 August 2020.
- [6] National Center for Disease Control. [https://ncdc.org.ly/Ar/serv1/]. Accessed on 07 August 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 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. The Joint External Evaluation of IHR Core Capacities of Libya Mission Report, conducted between 9-15 July 2018, does not provide such information [1], nor do the websites of the Ministry Health and Ministry of Agriculture, Animal Resources and Fisheries [2, 3] The United Nation Confidence Building Measures website does not provide information that shows Libya 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. [4] Neither the Verification Research, Training and Information Center (VERTIC) nor the National Center for Disease Control (the national laboratory system) websites provide such information. [5, 6] No Ministry of Research, Ministry of Defense or national public health institute websites were located.

- [1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of Libya Mission Report (9 15 July 2018)". [https://apps.who.int/iris/bitstream/handle/10665/312106/WHO-WHE-CPI-2019.37-eng.pdf?ua=1]. Accessed on 07 August 2020.
- [2] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 07 August 2020.
- [3] Ministry of Agriculture, Animal Resources and Fisheries. [https://www.agriculture.gov.ly/]. Accessed on 07 August 2020.
- [4] United Nations Office at Geneva (UNOG). "Confidence Building Measures". [https://bwc-ecbm.unog.ch/state/libya/]. Accessed on 07 August 2020.
- [5] Verification Research, Training and Information Center (VERTIC). "Legislation database".
- [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/l/]. Accessed on 07 August 2020.
- [6] National Center for Disease Control. [https://ncdc.org.ly/Ar/serv1/]. Accessed on 07 August 2020.

1.5.1b

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

Yes = 1, No = 0

Current Year Score: 0

There is no evidence that there is a national policy requiring oversight of dual-use research, such as research with especially dangerous pathogens, toxins, and/or pathogens with pandemic potential. The Joint External Evaluation of IHR Core Capacities of Libya Mission Report, conducted between 9-15 July 2018, does not provide information that shows that there is a national policy requiring oversight of dual-use research, such as research with especially dangerous pathogens, toxins, and/or pathogens with pandemic potential [1] nor do the websites of the Ministry Health and Ministry of Agriculture, Animal Resources and Fisheries [2, 3] The United Nation Confidence Building Measures website lists Libya among the countries that



submitted a Confidence-Building Measures report in 2019 but it is not available to public, and therefore it does not provide information that shows there is a national policy requiring oversight of dual-use research. [4] Neither the Verification Research, Training and Information Center (VERTIC) nor the National Center for Disease Control (the national laboratory system) websites provide such information. [5, 6] No Ministry of Research, Ministry of Defense or national public health institute websites were located.

- [1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of Libya Mission Report (9 15 July 2018)". [https://apps.who.int/iris/bitstream/handle/10665/312106/WHO-WHE-CPI-2019.37-eng.pdf?ua=1]. Accessed on 07 August 2020.
- [2] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 07 August 2020.
- [3] Ministry of Agriculture, Animal Resources and Fisheries. [https://www.agriculture.gov.ly/]. Accessed on 07 August 2020.
- [4] United Nations Office at Geneva (UNOG). "Confidence Building Measures". [https://bwc-ecbm.unog.ch/state/libya/]. Accessed on 07 August 2020.
- [5] Verification Research, Training and Information Center (VERTIC). "Verifying Libya's nuclear disarmament". [https://www.vertic.org/media/Archived_Publications/Yearbooks/2004/VY04_Boureston-Feldman.pdf]. Accessed on 07 August 2020.
- [6] National Center for Disease Control. [https://ncdc.org.ly/Ar/serv1/]. Accessed on 07 August 2020.

1.5.1c

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

Yes = 1, No = 0

Current Year Score: 0

There is no evidence that there is an agency responsible for oversight of research with especially dangerous pathogens, pathogens with pandemic potential, and/or other dual-use research. The Joint External Evaluation of IHR Core Capacities of Libya Mission Report, conducted between 9-15 July 2018, does not provide information that shows there is an agency responsible for oversight of research with especially dangerous pathogens, pathogens with pandemic potential, and/or other dual-use research [1] nor do the websites of the Ministry Health and Ministry of Agriculture, Animal Resources and Fisheries provide no such information. [2, 3] The United Nation Confidence Building Measures website lists Libya among the countries that submitted a Confidence-Building Measures report in 2019 but it is not available to public, and therefore it does not provide information that shows there is an agency responsible for oversight of research with especially dangerous pathogens, pathogens with pandemic potential, and/or other dual-use research. [4] Neither the Verification Research, Training and Information Center (VERTIC) nor the National Center for Disease Control (the national laboratory system) websites provide such information. [5, 6] No Ministry of Research, Ministry of Defense or national public health institute websites were located.

- [1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of Libya Mission Report (9 15 July 2018)". [https://apps.who.int/iris/bitstream/handle/10665/312106/WHO-WHE-CPI-2019.37-eng.pdf?ua=1]. Accessed on 07 August 2020.
- [2] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 07 August 2020.
- [3] Ministry of Agriculture, Animal Resources and Fisheries. [https://www.agriculture.gov.ly/]. Accessed on 07 August 2020.
- [4] United Nations Office at Geneva (UNOG). "Confidence Building Measures". [https://bwc-ecbm.unog.ch/state/libya/]. Accessed on 07 August 2020.
- [5] Verification Research, Training and Information Center (VERTIC). "Legislation database".
- [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/l/]. Accessed on 07 August



2020.

[6] National Center for Disease Control. [https://ncdc.org.ly/Ar/serv1/]. Accessed on 07 August 2020.

1.5.2 Screening guidance for providers of genetic material

1.5.2a

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

Yes = 1, No = 0

Current Year Score: 0

There is no evidence that there is a national legislation, regulation, policy, or other guidance, requiring the screening of synthesized DNA before it is sold. The Joint External Evaluation of IHR Core Capacities of Libya Mission Report, conducted between 9-15 July 2018, provides no such information [1] nor do the websites of the General Transportation Authority, Ministry of Health, or Ministry of Agriculture, Animal Resources and Fisheries. [2, 3, 4] The United Nation Confidence Building Measures website shows that Libya submitted a Confidence-Building Measures report in 2019 but it is not available for public, and therefore does not provide information that shows there is a national legislation, regulation, policy, or other guidance, requiring the screening of synthesized DNA before it is sold. [5] The Verification Research, Training and Information Center (VERTIC) and National Center for Disease Control (the national laboratory system) websites also provide no such information. [6, 7] No Ministry of Research, Ministry of Defense or national public health institute websites were located.

[1] World Health Organization (WHO). 2018. Library of National Action Plans. "State of Libya, National Action Plan on Prevention and Containment of Antimicrobial Resistance 2019-2023".

[http://apps.who.int/datacol/answer_upload.asp?survey_id=666&view_id=722&question_id=13163&answer_id=19958&res pondent_id=267192]. Accessed on 07 August 2020.

- [2] The General Transportation Authority. [https://www.laa.gov.ly//]. Accessed on 07 August 2020.
- [3] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 07 August 2020.
- [4] Ministry of Agriculture, Animal Resources and Fisheries. [https://www.agriculture.gov.ly/]. Accessed on 07 August 2020.
- [5] United Nations Office at Geneva (UNOG). "Confidence Building Measures". [https://bwc-ecbm.unog.ch/state/Libya]. Accessed on 07 August 2020.
- [6] Verification Research, Training and Information Center (VERTIC). "Legislation database".

[https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/l/]. Accessed on 10 October 2020.

[7] National Center for Disease Control. [https://ncdc.org.ly/Ar/serv1/]. Accessed on 07 August 2020.

1.6 IMMUNIZATION

1.6.1 Vaccination rates

1.6.1a

Immunization rate (measles/MCV2)

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

Current Year Score: 0

2019



World Health Organization

1.6.1b

Are official foot-and-mouth disease (FMD) vaccination figures for livestock publicly available through the OIE database? Yes = 1, No = 0

Current Year Score: 1

2020

OIE WAHIS database

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

2.1 LABORATORY SYSTEMS STRENGTH AND QUALITY

2.1.1 Laboratory testing for detection of priority diseases

2.1.1a

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

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

Current Year Score: 2

There is evidence that the national laboratory system has the capacity to conduct diagnostic tests for at least 5 of the 10 World Health Organization (WHO)-defined core tests. The Joint External Evaluation of IHR Core Capacities of Libya Mission Report, conducted between 9-15 July 2018, states that "From among the 10 core tests, laboratories in Libya are capable of carrying out polymerase chain reaction (PCR) tests for Influenza virus, serology of HIV, microscopy for TB, rapid diagnostic testing for plasmodium spp for malaria, bacterial culture for Salmonella enteritidis serotype Typhi (typhoid), Hepatitis C virus (HCV) serology and genotype, Brucella, Measles, Dengue, and MERS-CoV." [1] The Ministry of Health website, National Center for Disease Control national laboratory system page, World Organization for Animal Health (OIE) country reports website and WHO Libya profile website do not provide information that shows that the national laboratory system have the capacity to conduct diagnostic tests for at least 5 of the 10 WHO-defined core tests. [2, 3, 4, 5] No national public health institute websites were located.

- [1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of Libya Mission Report (9 15 July 2018)". [https://apps.who.int/iris/bitstream/handle/10665/312106/WHO-WHE-CPI-2019.37-eng.pdf?ua=1]. Accessed on 07 August 2020.
- [2] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 07 August 2020.
- [3] National Center for Disease Control. [https://ncdc.org.ly/Ar/p1133/]. Accessed on 07 August 2020.



[4] World Organization for Animal Health (OIE). "Country Reports".

[https://www.oie.int/wahis_2/public/wahid.php/Countryinformation/Countryreports]. Accessed on 07 August 2020.

[5] The World Health Organization (WHO). "Libya Country Profile". [https://www.who.int/countries/lby/en/]. Accessed on 07 August 2020.

2.1.1b

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

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

Current Year Score: 0

There is insufficient evidence that Libya has a national plan, strategy or similar document for conducting testing during a public health emergency, which includes consideration for testing for novel pathogens, scaling capacity, and defining goals for testing. There is a specific plan for one type of disease (Covid-19) although no details are provided on testing. The Information and Documentation Center on the Ministry of Health website presents a plan that aims to provide guidance for healthcare facilities in Libya on the management of persons having infection with (Covid-19) and their contacts called the National Guideline For Novel Corona Virus Covid-19 that conducts testing during the recent public health emergency (COVID-19). [1] The National Center for Disease control (NCDC) provides a manual for Intensive care units (ICU) response plan for novel COVID 19. [2] The Joint External Evaluation of International Health Regulations (IHR) Core Capacities of Libya Mission Report conducted between 9-15 July 2018 does not provide information suggesting that a more general plan existed prior to the Covid-19 pandemic. [3] Similarly, there is no evidence of such a plan on the websites of the Ministry of Health or the Ministry of Agriculture, Animal Resources and Fisheries [4,5] No national public health institute website was located.

- [1] The Information and Documentation Center. "Ministry of Health National Guideline For Novel Corona Virus Covid-19". [http://seha.ly/wp-content/uploads/2020/03/1584158976633293.pdf]. Accessed on 09 October 2020.
- [2] National Center for Disease Control. [https://ncdc.org.ly/Ar/publications/7 5 2020/]. Accessed on 09 October 2020.
- [3] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of Libya Mission Report (9 15 July 2018)". [https://apps.who.int/iris/bitstream/handle/10665/312106/WHO-WHE-CPI-2019.37-eng.pdf?ua=1]. Accessed on 07 August 2020.
- [4] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 09 October 2020.
- [5] Ministry of Agriculture, Animal Resources and Fisheries. [https://www.agriculture.gov.ly/]. Accessed on 09 October 2020.

2.1.2 Laboratory quality systems

2.1.2a

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

Yes = 1, No = 0

Current Year Score: 0

Libya does not have a national reference laboratory that is accredited. The Joint External Evaluation of IHR Core Capacities of Libya Mission Report, conducted between 9-15 July 2018, states that "None of the public health and animal laboratories are accredited." [1] The Ministry of Health and Ministry of Agriculture, Animal Resources and Fisheries websites do not provide



information that shows that the national reference laboratory is accredited. [2, 3] The World Organization for Animal Health (OIE) country reports website and World Health Organization (WHO) Libya profile website do not provide information that shows that the national reference laboratory is accredited. [4, 5] No national laboratory system or national public health institute websites were located.

- [1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of Libya Mission Report (9 15 July 2018)". [https://apps.who.int/iris/bitstream/handle/10665/312106/WHO-WHE-CPI-2019.37-eng.pdf?ua=1]. Accessed 07 August 2020.
- [2] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 07 August 2020.
- [3] Ministry of Agriculture, Animal Resources and Fisheries. [https://www.agriculture.gov.ly/]. Accessed on 07 August 2020.
- [4] World Organization for Animal Health (OIE). "Country Reports".
- [https://www.oie.int/wahis_2/public/wahid.php/Countryinformation/Countryreports]. Accessed on 07 August 2020.
- [5] World Health Organization (WHO). "Libya Country Profile" [https://www.who.int/countries/lby/en/]. Accessed on 07 August 2020.

2.1.2b

Is there a national laboratory that serves as a reference facility which is subject to external quality assurance review? Yes = 1, No = 0

Current Year Score: 1

There is evidence that the national reference laboratory is subject to external quality assurance (EQA) review. The Joint External Evaluation of IHR Core Capacities of Libya Mission Report, conducted between 9-15 July 2018, states that "At the country level, The National Center for Disease Control (NCDC) lab is participating in the EQA program supported by The World Health Organization(WHO)". [1] The National Center for Disease Control - the national laboratory system - website does not provide information that shows that the national reference laboratory is subject to external quality assurance review, [2] nor do the websites of the Ministry of Health or Ministry of Agriculture, Animal Resources and Fisheries. [3, 4]

- [1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of Libya Mission Report (9 15 July 2018)". [https://apps.who.int/iris/bitstream/handle/10665/312106/WHO-WHE-CPI-2019.37-eng.pdf?ua=1]. Accessed on 09 August 2020.
- [2]] National Center for Disease Control. [https://ncdc.org.ly/Ar/serv1/]. Accessed on 09 August 2020.
- [3] The Ministry of Health. [https://www.health.gov.ly/]. Accessed on 09 August 2020.
- [4] Ministry of Agriculture, Animal Resources and Fisheries. [https://www.agriculture.gov.ly/]. Accessed on 09 August 2020.

2.2 LABORATORY SUPPLY CHAINS

2.2.1 Specimen referral and transport system

2.2.1a

Is there a nationwide specimen transport system?

Yes = 1, No = 0

Current Year Score: 1

There is evidence that there is a nationwide specimen transport system in Libya. The Joint External Evaluation (JEE) of IHR Core Capacities of Libya Mission Report conducted between 9-15 July 2018 scores Libya as a 4 under D.1.2 Specimen referral



and transport system, indicating that a "system is in place to transport specimens to national laboratories from at least 80% of intermediate level/districts within the country for advanced diagnostics." [1,2] However, the JEE report does not make other mention of a specimen transport system other than to say that a "specimen referral system should cover all the country", indicating that some gaps remain. [1] The Ministry of Health website does not provide information that shows that there is a nationwide specimen transport system in Libya. [3] The Ministry of Agriculture, Animal Resources and Fisheries website does not provide information that shows that there is a nationwide specimen transport system in Libya. [4] The OIE country reports website does not provide information that shows that there is a nationwide specimen transport system in Libya. [5] The World Health Organization (WHO) Libya profile website does not provide information that shows that there is a nationwide specimen transport system in Libya. [6] The National Center for Disease control (the national laboratory system) page does not provide information that shows that there is a nationwide specimen transport system in Libya. [7] No national public health institute websites were located.

- [1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of Libya Mission Report (9 15 July 2018)". [https://apps.who.int/iris/bitstream/handle/10665/312106/WHO-WHE-CPI-2019.37-eng.pdf?ua=1]. Accessed on 09 August 2020.
- [2] World Health Organization (WHO). 2016. "Joint External Evaluation Tool".
- [https://apps.who.int/iris/bitstream/handle/10665/204368/9789241510172_eng.pdf?sequence=1]. Accessed 09 August 2020
- [3] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 09 August 2020.
- [4] Ministry of Agriculture, Animal Resources and Fisheries. [https://www.agriculture.gov.ly/]. Accessed on 09 August 2020.
- [5] World Organization for Animal Health (OIE). "Country reports".
- [https://www.oie.int/wahis 2/public/wahid.php/Countryinformation/Countryreports]. Accessed on 09 August 2020.
- [6] World Health Organization (WHO). "Libya Country Profile" [https://www.who.int/countries/lby/en/]. Accessed on 09 August 2020.
- [7] National Center for Disease Control. [https://ncdc.org.ly/Ar/serv1/]. Accessed on 09 August 2020.

2.2.2 Laboratory cooperation and coordination

2.2.2a

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

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

Current Year Score: 0

Libya does not have 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. The Joint External Evaluation of IHR Core Capacities of Libya Mission Report, conducted between 9-15 July 2018, states that "The directorate of private sector at the Ministry of Health is responsible for laboratory licensing administratively only but not based on specifications issues, the inspection for private and public laboratories usually conducted by local municipality". [1] The websites of the Ministry of Health, Ministry of Agriculture, Animal Resources and Fisheries website and National Center for Disease Control provide no information that shows there is a plan in place to rapidly authorize or license laboratories to supplement the capacity of the national public health laboratory system to scale-up testing during an outbreak. [2, 3, 4] No national public health institute websites were located.

[1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of Libya Mission Report (9 - 15 July 2018)". [https://apps.who.int/iris/bitstream/handle/10665/312106/WHO-WHE-CPI-2019.37-eng.pdf?ua=1]. Accessed 09



August 2020.

- [2] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 09 August 2020.
- [3] Ministry of Agriculture, Animal Resources and Fisheries. [https://www.agriculture.gov.ly/]. Accessed on 09 August 2020.
- [4] National Center for Disease Control. [https://ncdc.org.ly/Ar/p1133/]. Accessed on 09 August 2020.

2.3 REAL-TIME SURVEILLANCE AND REPORTING

2.3.1 Indicator and event-based surveillance and reporting systems

2.3.1a

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

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

Current Year Score: 1

There is evidence that Libya is conducting ongoing event-based surveillance and analysis for infectious diseases. The Joint External Evaluation (JEE) of IHR Core Capacities of Libya Mission Report, conducted between 9-15 July 2018, states that "Event based surveillance exists at national and sub-national levels, down to the level of municipalities standard operating procedures for event-based surveillance do exist." [1] However, it is not clear if this is conducted on a daily basis.

The websites of the Ministry of Health, Ministry of Agriculture, Animal Resources and Fisheries, World Organization for Animal Health (OIE) country reports, World Health Organization (WHO) Libya profile and National Center for Disease Control and the relevant national emergency planning entity, do not provide information that shows Libya is conducting ongoing event-based surveillance and analysis for infectious disease. [2, 3,4, 5 6] No documents related to national emergency planning were located. No Ministry of Defense, Ministry of Research or national public health institute websites were located.

- [1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of Libya Mission Report (9 15 July 2018)". [https://apps.who.int/iris/bitstream/handle/10665/312106/WHO-WHE-CPI-2019.37-eng.pdf?ua=1]. Accessed on 09 August 2020.
- [2] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 09 August 2020.
- [3] Ministry of Agriculture, Animal Resources and Fisheries. [https://www.agriculture.gov.ly/]. Accessed on 09 August 2020.
- [4] World Organization for Animal Health (OIE). "Country reports".
- [https://www.oie.int/wahis 2/public/wahid.php/Countryinformation/Countryreports]. Accessed on 09 August 2020.
- [5] World Health Organization (WHO). "Libya Country Profile" [https://www.who.int/countries/lby/en/]. Accessed on 09 August 2020.
- [6] National Center for Disease Control. [https://ncdc.org.ly/Ar/serv1/]. Accessed on 09 August 2020.

2.3.1b

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

Yes = 1, No = 0

Current Year Score: 0



There is no evidence that Libya has reported a potential public health emergencies of international concern (PHEIC) to the World Health Organization (WHO) within the last two years. [1] There is no such information of the websites of the Ministry of Health, Ministry of Agriculture, Animal Resources and Fisheries, or National Center for Disease Control.

- [1] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 05 April 2021.
- [2] Ministry of Agriculture, Animal Resources and Fisheries. [https://www.agriculture.gov.ly/]. Accessed on 05 April 2021.
- [3] National Center for Disease Control. [https://ncdc.org.ly/Ar/]. Accessed on 05 April 2021.

2.3.2 Interoperable, interconnected, electronic real-time reporting systems

2.3.2a

Does the government operate an electronic reporting surveillance system at both the national and the sub-national level? Yes = 1, No = 0

Current Year Score: 0

The government does not operate an electronic reporting surveillance system at both the national and sub-national level. The Joint External Evaluation of IHR Core Capacities of Libya Mission Report, conducted between 9-15 July 2018, states that "Collection and reporting of surveillance data are in paper format. Electronic reporting systems are utilized in human health for Early Warning Alert and Response Network (EWARN) only, but there is a plan to implement electronic reporting surveillance system." [1] The Ministry of Health, Ministry of Agriculture, Animal Resources and Fisheries, World Organization for Animal Health (OIE) country reports and World Health Organization (WHO) Libya profile websites do not provide information that shows that the government operates an electronic reporting surveillance system at both the national and sub-national level. [2, 3, 4, 5]

- [1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of Libya Mission Report (9 15 July 2018)". [https://apps.who.int/iris/bitstream/handle/10665/312106/WHO-WHE-CPI-2019.37-eng.pdf?ua=1]. Accessed on 09 August 2020.
- [2] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 09 August 2020.
- [3] Ministry of Agriculture, Animal Resources and Fisheries. [https://www.agriculture.gov.ly/]. Accessed on 09 August 2020.
- [4] World Organisation for Animal Health (OIE). "Country Reports".
- [https://www.oie.int/wahis_2/public/wahid.php/Countryinformation/Countryreports]. Accessed on 09 August 2020.
- [5] World Health Organization (WHO). "Libya Country Profile". [https://www.who.int/countries/lby/en/]. Accessed on 09 August 2020.

2.3.2b

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

Yes = 1, No = 0

Current Year Score: 0

Libya does not have a surveillance system that collects ongoing/real-time laboratory data. The Joint External Evaluation of IHR Core Capacities of Libya Mission Report, conducted between 9-15 July 2018, states that "real-time surveillance is limited by a poor participation of the private sector which is particularly important with the current influx of migrants/refugees from sub-Saharan countries." [1] No evidence of such a system was found on the websites of the Ministry of Health, Ministry of Agriculture, Animal Resources and Fisheries, World Organization for Animal Health (OIE) country reports, World Health Organization (WHO) Libya profile or National Center for Disease Control) the national laboratory system . [2, 3, 4, 5, 6] No



national public health institute websites were located.

- [1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of Libya Mission Report (9 15 July 2018)". [https://apps.who.int/iris/bitstream/handle/10665/312106/WHO-WHE-CPI-2019.37-eng.pdf?ua=1]. Accessed on 09 August 2020.
- [2] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 09 August 2020.
- [3] Ministry of Agriculture, Animal Resources and Fisheries. [https://www.agriculture.gov.ly/]. Accessed on 09 August 2020.
- [4] World Organization for Animal Health (OIE). "Country reports".
- [https://www.oie.int/wahis 2/public/wahid.php/Countryinformation/Countryreports]. Accessed on 09 August 2020.
- [5] World Health Organization (WHO). "Libya Country Profile". [https://www.who.int/countries/lby/en/]. Accessed on 09 August 2020.
- [6] National Center for Disease Control. [https://ncdc.org.ly/Ar/serv1/]. Accessed on 09 August 2020.

2.4 SURVEILLANCE DATA ACCESSIBILITY AND TRANSPARENCY

2.4.1 Coverage and use of electronic health records

2.4.1a

Are electronic health records commonly in use?

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

Current Year Score: 0

There is no evidence that electronic health records are commonly in use in Libya. The Ministry of Health and National Center for Disease Control websites do not provide information that shows electronic health records are used at all in Libya [1, 2]

- [1] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 09 August 2020.
- [2] National Center for Disease Control. [https://ncdc.org.ly/Ar/serv1/]. Accessed on 09 August 2020.

2.4.1b

Does the national public health system have access to electronic health records of individuals in their country? Yes = 1, No = 0

Current Year Score: 0

There is no evidence that the national public health system has access to electronic health records of individuals in Libya, nor evidence that electronic health records commonly in use. There has been a civil war in the country since 2011 and the public healthcare system has "deteriorated to the point of collapse and struggles to deal with casualties from the conflict. Serious illness and disease are rising. In conflict areas, over 60% of hospitals have been inaccessible or closed" according to the World Health Organization (WHO). [1] The Ministry of Health and National Center for Disease Control websites provide no information that shows the national public health system has access to electronic health records of individuals in Libya. [2, 3] No national public health institute websites were located.

- [1] World Health Organization (WHO). "Libya Humanitarian Response Plan 2016" [https://www.who.int/hac/crises/lby/appeals/en/]. Accessed on09 August 2020.
- [2] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 09 August 2020.



[3] National Center for Disease Control. [https://ncdc.org.ly/Ar/serv1/]. Accessed on 09 August 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 there are data standards to ensure data is comparable (e.g. International Organization for Standardization (ISO) standards). There is no evidence that there are electronic health records commonly in use in Libya. The Ministry of Health and National Center for Disease Control websites provide no information that shows there are data standards to ensure data is comparable. [1, 2] No national public health institute websites were located.

- [1] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 09 August 2020.
- [2] National Center for Disease Control. [https://ncdc.org.ly/Ar/serv1/]. Accessed on 09 August 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: 1

There is public evidence that there are established mechanisms at the relevant ministries responsible for animal, human and wildlife surveillance to share data. The Joint External Evaluation (JEE) of IHR Core Capacities of Libya Mission Report, conducted between 9-15 July 2018, states that "Functioning ad-hoc multi-sectoral collaboration and information sharing is in place in case of events of public health concern. A memorandum of understanding between the National Center for Disease Control (NCDC) and the National Center for Animal Health (NCAH) exists and is functional. It concerns zoonotic diseases surveillance, diagnosis, sharing information, building staff capacity." [1] In addition, the JEE notes that "in 2015, the National Center for Disease Control (NCDC) and the National Center for Animal Health (NCAH) signed an Agreement (2016) for coordination in zoonotic disease events. There is information exchange between animal and human health surveillance units, laboratories, and other relevant sectors regarding potential zoonotic risks and urgent zoonotic events. NCDC regularly communicates and exchanges reports with the NCAH". [1] However, the Ministry of Health and Ministry of Agriculture, Animal Resources and Fisheries websites do not provide information about the established mechanisms at the relevant ministries responsible for animal, human and wildlife surveillance to share data (such as through mosquito surveillance, brucellosis surveillance, etc.). [2, 3]

- [1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of Libya Mission Report (9 15 July 2018)". [https://apps.who.int/iris/bitstream/handle/10665/312106/WHO-WHE-CPI-2019.37-eng.pdf?ua=1]. Accessed on 09 August 2020.
- [2] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 09 August 2020.
- [3] Ministry of Agriculture, Animal Resources and Fisheries. [https://www.agriculture.gov.ly/]. Accessed on 09 August 2020.



2.4.3 Transparency of surveillance data

2.4.3a

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

Yes = 1, No = 0

Current Year Score: 0

There is no evidence that Libya makes de-identified health surveillance data on disease outbreaks publicly available via reports (or other format) on government websites (such as the Ministry of Health, Ministry of Agriculture or similar). The Joint External Evaluation of IHR Core Capacities of Libya Mission Report, conducted between 9-15 July 2018, does not provide information that shows that the country makes de-identified health surveillance data on disease outbreaks publicly available via reports (or other format) on government websites [1] nor does the Ministry of Health website [2] the World Organization for Animal Health (OIE) country reports website [3], the World Health Organization (WHO) Libya profile website [4], the Ministry of Agriculture, Animal Resources and Fisheries website [5], or the National Center for Disease Control website. [6] No national public health institute websites were located.

- [1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of Libya Mission Report (9 15 July 2018)". [https://apps.who.int/iris/bitstream/handle/10665/312106/WHO-WHE-CPI-2019.37-eng.pdf?ua=1]. Accessed on 09 August 2020.
- [2] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 09 August 2020.
- [3] World Organization for Animal Health (OIE). "Country reports".
- [https://www.oie.int/wahis_2/public/wahid.php/Countryinformation/Countryreports]. Accessed on 09 August 2020.
- [4] World Health Organization (WHO). "Libya Country Profile". [https://www.who.int/countries/lby/en/]. Accessed on 09 August 2020.
- [5] Ministry of Agriculture, Animal Resources and Fisheries. [https://www.agriculture.gov.ly/]. Accessed on 09 August 2020.
- [6] National Center for Disease Control. [https://ncdc.org.ly/Ar/serv1/]. Accessed on 09 August 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

There is evidence that Libya makes de-identified Covid-19 surveillance data (including details such as daily case count, mortality rate, etc.) available via daily reports. The data is featured prominently on the National Center for Disease Control website as a live dashboard and posting daily written reports on their Facebook page, the dashboard and the reports that gives information on the number of cases in each municipality across Libya, daily case count, mortality rate, recovered cases and active cases .[1,2] However, the Ministry of Health website does not provide such information.[3] No national public health institute websites were located.

- [1] National Center for Disease Control. [https://ncdc.org.ly/Ar/libyan-covid-19-dashboard/]. Accessed on 09 August 2020.
- [2] National Center for Disease Control. "Facebook". [https://www.facebook.com/NCDC.LY]. Accessed on 09 August 2020.
- [3] The Ministry of Health. [https://www.health.gov.ly/]. Accessed on 09 August 2020.



2.4.4 Ethical considerations during surveillance

2.4.4a

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

Yes = 1, No = 0

Current Year Score: 0

There is no evidence that there are laws, regulations, or guidelines that safeguard the confidentiality of identifiable health information for individuals, such as that generated through health surveillance activities. The Ministry of Health and Ministry of Agriculture, Animal Resources and Fisheries websites as well as the National Center for Disease Control national laboratory system page provide no information that shows that there are laws, regulations, or guidelines that safeguard the confidentiality of identifiable health information for individuals, such as that generated through health surveillance activities. [1, 2, 3] No national public health institute nor templates/online forms for medical practitioners/lab personnel to submit surveillance data websites were located. No relevant information was found on law firm websites.

- [1] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 11 August 2020.
- [2] Ministry of Agriculture, Animal Resources and Fisheries. [https://www.agriculture.gov.ly/]. Accessed on 11 August 2020.
- [3] National Center for Disease Control. [https://ncdc.org.ly/Ar/serv1/]. Accessed on 11 August 2020

2.4.4b

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

Yes = 1, No = 0

Current Year Score: 0

There is no evidence that the laws, regulations, or guidelines 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) or even that such laws, regulations, or guidelines exist. The Ministry of Health and Ministry of Agriculture, Animal Resources and Fisheries websites as well as the National Center for Disease Control national laboratory system page provide no information that shows the laws, regulations, or guidelines safeguarding the confidentiality of identifiable health information for individuals, such as that generated through health surveillance activities, include mention of protections from cyber attacks. [1, 2, 3] No national public health institute nor templates/online forms for medical practitioners/lab personnel to submit surveillance data websites were located. No relevant information was found on law firm websites.

- [1] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 11 August 2020.
- [2] Ministry of Agriculture, Animal Resources and Fisheries. [https://www.agriculture.gov.ly/]. Accessed on 11 August 2020.
- [3] National Center for Disease Control. [https://ncdc.org.ly/Ar/serv1/]. Accessed on 11 August 2020



2.4.5 International data sharing

2.4.5a

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

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

Current Year Score: 0

There is insufficient evidence that 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 for one or more diseases. However, as a general commitment the Libyan government shared surveillance data with World Health Organization (WHO) during the Covid-19 outbreak via a response and confrontation plan made specifically for Covid-19 and it does not extend to other public health emergencies. The National Coronavirus Response and Confrontation Plan states that "Stage 2: In the case of a confirmed case of Coronavirus the National Coordinator for International Health Regulations at the National Center for Disease Control will notify the WHO, following International Health Regulations (IHR)." The plan is published at The National Center for Diseases Control (NCDC) [1] The WHO Libya profile website does not provide information that shows 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. However, there is a joint statement by the WHO and United Nations (UN) that confirms Covid-19 cases in Libya, the statement states "As of May 13, there were 64 confirmed cases of Covid-19, including three deaths, in different parts of the country." [2] The World Organization for Animal Health (OIE) country reports website does not provide information that shows that the government shared surveillance data during a public health emergency with other countries in the region. [3] The Joint External Evaluation of IHR Core Capacities of Libya Mission Report, conducted between 9-15 July 2018, does not provide information that shows that 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. [4] The Ministry of Health website does not provide information that shows that 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. [5]

[1] National Center for Disease Control. "National Coronavirus Response and Confrontation Plan".

[https://ncdc.org.ly/Ar/17_3_2020-2/]. Accessed on 11 August 2020.

- [2] World Health Organization (WHO). "Joint Statement on Libya". [http://www.emro.who.int/lby/libya-news/joint-statemnt-on-libya.html]. Accessed on 11 August 2020.
- [3] World Organization for Animal Health (OIE). "Country reports".
- [https://www.oie.int/wahis 2/public/wahid.php/Countryinformation/Countryreports]. Accessed on 11 August 2020.
- [4] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 11 August 2020.
- [5] Ministry of Agriculture, Animal Resources and Fisheries. [https://www.agriculture.gov.ly/]. Accessed on 11 August 2020.

2.5 CASE-BASED INVESTIGATION

2.5.1 Case investigation and contact tracing

2.5.1a

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



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

Current Year Score: 1

There is some evidence that there is 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 an active public health emergency. There is a national plan called "National Coronavirus Response and Confrontation Plan" to conduct contact tracing in the event of a public health emergency that's only applicable for the Covid-19. The plan states that "Contact tracing, investigation and referral to quarantine until the 14-day incubation period expires".[1] The World Health Organization (WHO) Coronavirus disease 2019 (Covid-19) Weekly Situation report 05 (27 March - 4 April 2020) provides information that the WHO is supporting Libya in contact tracing "WHO is supporting contact tracing and the development of the work plan for rapid response teams across the country". [2]

The National Center for Disease Control published an article states that a training was conducted to build the capacity of rapid response teams from across Libya on contact tracing for Covid-19 cases. [3] The Joint External Evaluation of International Health regulation (IHR) Core Capacities of Libya Mission Report, conducted between 9-15 July 2018, does not provide information that shows there is a national system in place to provide support at the sub-national level to conduct contact tracing in the event of a public health emergency. [4] The Ministry of Health website does not provide information that shows that there is a national system in place to provide support at the sub-national level to conduct contact tracing in the event of a public health emergency. [5]

- [1] National Center for Disease Control. "National Coronavirus Response and Confrontation Plan". [https://ncdc.org.ly/Ar/17_3_2020-2/]. Accessed on 11 August 2020.
- [2] World Health Organization (WHO). 2020. "Coronavirus disease 2019 (Covid-19) Weekly Situation report 05 (27 March 4 April 2020)". [http://www.emro.who.int/images/stories/coronavirus/covid-19-sitrep-5.pdf]. Accessed on 11 August 2020.
- [3] National Center for Disease Control. [https://ncdc.org.ly/Ar/13_4_2020/]. Accessed on 11 August 2020.
- [4] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of Libya Mission Report (9 15 July 2018)". [https://apps.who.int/iris/bitstream/handle/10665/312106/WHO-WHE-CPI-2019.37-eng.pdf?Ua=1]. Accessed11 August 2020.
- [5] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 11 August 2020.

2.5.1b

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

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

Current Year Score: 0

There is no evidence that Libya 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. Neither the Ministry of Health website nor the national laboratory system page of the National Center for Disease control provide information that shows Libya provides wraparound services to enable infected people and their contacts to self-isolate or quarantine, particularly economic support (paycheck, job security) and medical attention.[1, 3] There is also not mention of this on the Joint External Evaluation of IHR Core Capacities of Libya Mission Report conducted between 9-15 July 2018. [2]



- [1] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 11 August 2020.
- [2] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of Libya Mission Report (9 15 July 2018)". [https://apps.who.int/iris/bitstream/handle/10665/312106/WHO-WHE-CPI-2019.37-eng.pdf?Ua=1]. Accessed11 August 2020
- [3] National Center for Disease Control. "National Coronavirus Response and Confrontation Plan". [https://ncdc.org.ly/Ar/17 3 2020-2/]. Accessed on 11 August 2020.

2.5.1c

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

Yes = 1, No = 0

Current Year Score: 0

There is no evidence that Libya 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 formats). Neither the National Center for Diseases Control (NCDC) website nor the Ministry of Health website provide information that shows the country 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). [1, 2]

- [1] National Center for Disease Control. "Dashboard". [https://ncdc.org.ly/Ar/]. Accessed on 7 September 2020.
- [2] Ministry of Health. [https://www.health.gov.ly//]. Accessed on 7 September 2020.

2.5.2 Point of entry management

2.5.2a

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

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

Current Year Score: 1

There is some evidence that there is 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 an active public health emergency. The Joint External Evaluation of IHR Core Capacities of Libya Mission Report, conducted between 9-15 July 2018, however states that "There is no memorandum of understanding or other agreement between public health and security authority entities at the national level. Despite the lack of MoU or official agreement, the public health and security authorities are linked during emergencies in general, such as evidenced during the 2009 Influenza pandemic. Communications is also established during public health events and coordination exists between both public health and security authorities at points of entry. Joint training, including both public health and security authorities, on topics related to information sharing and joint investigations/ responses has not been conducted and is not planned."[1] The National Coronavirus Response and Confrontation Plan" published at the National Center for Disease Control mentions that Ports and Transit Technical Committee was created as a response for Covid-19 and this committee's task is to follow up the development of the various boarders through the international health control offices available at the



boarders, and provide updates to the National Coronavirus Response and Confrontation steering committee published on the 17 March 2020.[2] The National Center for Disease Control (NCDC) published an article on the 3 May 2020 stating that there is coordination between the Ministry of Transportation and the NCDC in the operations of transporting citizens and clarifying the actions taken by the Ministry of Transportation and the national airlines, in helping the National Center for Disease control trace the travelers by filling a health card and submitted to the International health oversight offices at the airports once they arrive.[3] However, the Ministry of Health website does not provide information that shows that there is 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. [4] No border control authorities websites was located.

- [1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of Libya Mission Report (9 15 July 2018)". [https://apps.who.int/iris/bitstream/handle/10665/312106/WHO-WHE-CPI-2019.37-eng.pdf?Ua=1]. Accessed11 August 2020.
- [2] National Center for Disease Control. "National Coronavirus Response and Confrontation Plan".

[https://ncdc.org.ly/Ar/17 3 2020-2/]. Accessed on 11 August 2020.

- [3] National Center for Disease Control. "Article". [https://ncdc.org.ly/Ar/3_5_2020/]. Accessed on 11 August 2020.
- [4] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 11 August 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: 0

There is insufficient evidence that Libya either has applied epidemiology training programs (such as the Field Epidemiology Training Program (FETP)) available in country or that the country has provided resources to send citizens to another country for training. The Joint External Evaluation of International Health Regulations (IHR) Core Capacities of Libya Mission Report, conducted between 9-15 July 2018, states that "There is no FETP in Libya yet, and the capacity for field epidemiology is very limited. Linkages have been established with Eastern Mediterranean Public Health Network (EMPHNET), and there is need to strengthen and provide regular funding to train personnel through both the short-term Public Health Empower (3 months) and FETP (2 years) programs." [1] There is no evidence via the EMPHNET website that Libyan nationals have yet been incorporated into FETP programs. [2,3] A 2017 report from Training Programs in Epidemiology and Public Health Interventions Network (TEPHINET) notes that the Yemen FETP training program organized a workshop on the Joint External Evaluation process, but there is no indication of a similar program to provide FETP training. [4] No further information is available via the websites for the Ministry of Health or the national laboratory. [5,6]



- [1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of Libya Mission Report (9 15 July 2018)". [https://apps.who.int/iris/bitstream/handle/10665/312106/WHO-WHE-CPI-2019.37-eng.pdf?ua=1]. Accessed on 07 August 2020.
- [2] Eastern Mediterranean Public Health Network (EMPHNET). "Country Programs." [http://emphnet.net/?page_id=491]. Accessed on 11 October 2020.
- [3] Eastern Mediterranean Public Health Network (EMPHNET). "GHD/EMPHNET and Libya National Communicable Disease Center Conduct RRT Training of Trainers Workshop." [http://emphnet.net/?news=ghdemphnet-and-libya-national-communicable-disease-center-conduct-rrt-training-of-trainers-workshop]. Accessed on 11 October 2020.
- [4] Training Programs in Epidemiology and Public Health Interventions Network (TEPHINET). "FETP Updates: October December 2017". [https://www.tephinet.org/sites/tephinet/files/content/attachment/2018-08-10/FETP%20Updates_Oct-Dec2017 TEPHINET.pdf]. Accessed on 11 October 2020.
- [5] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 11 October 2020.
- [6] National Center for Disease Control. [https://ncdc.org.ly/Ar/serv1/]. Accessed on 11 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: 0

There is no evidence that the available field epidemiology training programs (FETP) are explicitly inclusive of animal health professionals or if a specific animal health field epidemiology training program offered (such as the Field Epidemiology Training Program for Veterinarians (FETPV)). The Training Programs in Epidemiology and Public Health Interventions Network (TEPHINET) website states that Libya is not a member and thus does not provide information on available field epidemiology training programs. [1] There is also no such evidence on the Ministry of Health website. [2]

[1] Training Programs in Epidemiology and Public Health Interventions Network (TEPHINET). "Training Programs". [https://www.tephinet.org/training-programs]. Accessed on 13 August 2020.

[2] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 13 August 2020.

2.6.2 Epidemiology workforce capacity

2.6.2a

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

Yes = 1, No = 0

Current Year Score: 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 evidence that Libya has a disease-specific plan for Covid-19 called The National Coronavirus Response and Confrontation Plan published on The National Center for Disease control website. [1] However, there is insufficient evidence of an overarching national public health emergency response plan in place which addresses planning for multiple communicable diseases with epidemic or pandemic potential. The Joint External Evaluation of IHR Core Capacities of Libya Mission Report, conducted between 9-15 July 2018, states that "Libya has no multi-hazard national public health emergency preparedness and response plan that adopts a whole of society approach and addresses risks at the Points of Entry (PoE). There is no specific organization or institute responsible for public health emergency per se." [2] The Ministry of Health website does not provide information that shows that the country has a national public health emergency response plan in place which addresses planning for multiple communicable diseases with pandemic potential. [3] The World Organization for Animal Health (OIE) Performance of Veterinary Services (PVS) Evaluation Reports website does not list Libya as one of the country has a national public health emergency response plan in place which addresses planning for multiple communicable diseases with pandemic potential. [4]

- [1] National Center for Disease Control. "National Coronavirus Response and Confrontation Plan".
- [https://ncdc.org.ly/Ar/17 3 2020-2/]. Accessed on 16 August 2020.
- [2] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of Libya Mission Report (9 15 July 2018)". [https://apps.who.int/iris/bitstream/handle/10665/312106/WHO-WHE-CPI-2019.37-eng.pdf?ua=1]. Accessed on 16 August 2020.
- [3] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 16 August 2020.
- [4] World Organization for Animal Health (OIE). "OIE PVS Evaluation Reports" [http://www.oie.int/solidarity/pvs-evaluations/pvs-evaluation-reports/]. Accessed on 16 August 2020.

3.1.1b

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

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

Current Year Score: 0

There is no evidence that there is an overarching plan in place in Libya that has been updated in the last 3 years. The National Center for Disease Control and Ministry of Health websites do not mention that an overreaching plan has been updated in



the last 3 years. [1, 2] The Joint External Evaluation of International Health Regulations (IHR) Core Capacities of Libya Mission Report, conducted between 9-15 July 2018, does not provide information that shows that there is a plan in place that has been updated in the last 3 years. [3] The World Organization for Animal Health (OIE) Performance of Veterinary Services (PVS) Evaluation Reports website does not list Libya as one of the countries that has a PVS Evaluation report that is publicly available and does not provide information that shows that there is a plan in place that has been updated in the last 3 years. [4]

- [1] National Center for Disease Control. [https://ncdc.org.ly/Ar/]. Accessed on 16 August 2020.
- [2] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 16 August 2020.
- [3] World Health Organization (WHO)."Joint External Evaluation of IHR Core Capacities of Libya Mission Report (9 15 July 2018)". [https://apps.who.int/iris/bitstream/handle/10665/312106/WHO-WHE-CPI-2019.37-eng.pdf?ua=1]. Accessed on 16 August 2020.
- [4] World Organization for Animal Health (OIE). "OIE PVS Evaluation Reports" [http://www.oie.int/solidarity/pvs-evaluations/pvs-evaluation-reports/]. Accessed on 16 August 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 no evidence that there is an overarching plan in place in Libya that includes considerations for pediatric and/or other vulnerable populations. A disease-specific plan for Covid-19 called The National Coronavirus Response and Confrontation Plan published at The National Center for Disease control website does not includes considerations for pediatric and/or other vulnerable populations. [1] The Joint External Evaluation of International Health Regulations (IHR) Core Capacities of Libya Mission Report, conducted between 9-15 July 2018, does not provide information that shows that the country has an overarching plan in place that includes considerations for pediatric and/or other vulnerable populations. [2] The Ministry of Health website does not provide information that shows that the country has an overarching plan in place that includes considerations for pediatric and/or other vulnerable populations. [3]

[1] National Center for Disease Control. "National Coronavirus Response and Confrontation Plan". [https://ncdc.org.ly/Ar/17 3 2020-2/]. Accessed on 16 August 2020.

[2] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of Libya Mission Report (9 - 15 July 2018)". [https://apps.who.int/iris/bitstream/handle/10665/312106/WHO-WHE-CPI-2019.37-eng.pdf?ua=1]. Accessed on 16 August 2020.

[3] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 16 August 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 evidence that Libya has specific mechanisms for engaging with the private sector to assist with outbreak emergency preparedness and response. The Ministry of Health, Ministry of Agriculture, Animal Resources and Fisheries and National Center for Disease control website provide no information that shows that the country has specific mechanisms for engaging with the private sector to assist with outbreak emergency preparedness and response. [1, 2, 3]

- [1] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 16 August 2020.
- [2] Ministry of Agriculture, Animal Resources and Fisheries. [https://www.agriculture.gov.ly/]. Accessed on 16 August 2020.
- [3] National Center for Disease Control. [https://ncdc.org.ly/Ar/serv1/]. Accessed on 16 August 2020.

3.1.3 Non-pharmaceutical interventions planning

3.1.3a

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

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

Current Year Score: 0

There is no evidence that Libya has a policy, plan and/or guidelines in place to implement non-pharmaceutical interventions (NPIs) during an epidemic or pandemic for one or more diseases. Neither the National Center for Disease Control (NCDC), the national laboratory system, nor the Ministry of Health websites provide such evidence [1, 2] The Joint External Evaluation of International Health Regulations (IHR) Core Capacities of Libya Mission Report, conducted between 9-15 July 2018, also provides no information that shows that Libya has a policy, plan and/or guidelines in place to implement non-pharmaceutical interventions (NPIs) during an epidemic or pandemic. [3]

[1] National Center for Disease Control. "National Coronavirus Response and Confrontation Plan". [https://ncdc.org.ly/Ar/17_3_2020-2/]. Accessed on 16 August 2020.

[3] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 16 August 2020.

[3] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of Libya Mission Report (9 - 15 July 2018)". [https://apps.who.int/iris/bitstream/handle/10665/312106/WHO-WHE-CPI-2019.37-eng.pdf?ua=1]. Accessed on 16 August 2020.



3.2 EXERCISING RESPONSE PLANS

3.2.1 Activating response plans

3.2.1a

Does the country meet one of the following criteria?

- Is there evidence that the country has activated their national emergency response plan for an infectious disease outbreak in the past year?
- Is there evidence that the country has completed a national-level biological threat-focused exercise (either with WHO or separately) in the past year?

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

Current Year Score: 1

There is evidence that Libya has activated its national emergency response plan for an infectious disease outbreak called "The National Coronavirus Response and Confrontation Plan" in 2020. However, there is no evidence that Libya has completed a national-level biological threat-focused exercise (either with World Health Organization (WHO) or separately) in the past year. The National Coronavirus Response and Confrontation Plan is available at The National Center for Disease website, but it doesn't show that Libya has completed a national-level biological threat-focused exercise (either with WHO or separately) in the past year. [1] The Joint External Evaluation of IHR (International Health Regulations) Core Capacities of Libya Mission Report, conducted between 9-15 July 2018, provide no information that shows Libya has activated its national emergency response plan for an infectious disease outbreak or completed a national-level biological threat-focused exercise in the past year. [2] The Ministry of Health website also provides no such evidence. [3]

[1] National Center for Disease Control. "National Coronavirus Response and Confrontation Plan". [https://ncdc.org.ly/Ar/17 3 2020-2/]. Accessed on 16 August 2020.

[2] World Health Organization (WHO) "Joint External Evaluation of IHR Core Capacities of Libya Mission Report (9 - 15 July 2018)". [https://apps.who.int/iris/bitstream/handle/10665/312106/WHO-WHE-CPI-2019.37-eng.pdf?ua=1]. Accessed on 16 August 2020.

[3] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 16 August 2020.

3.2.1b

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

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

Current Year Score: 0

There is no evidence that Libya has, in the past year, 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. The World Health Organization After Action Review, Simulation Exercise and Libya Country Profile websites do not provide such information [1,2,3] nor can evidence be found on the Ministry of Health website and the press releases section of that website.[4]



- [1] World Health Organization (WHO). "After Action Review". [https://extranet.who.int/sph/after-action-review]. Accessed on 19 August 2020.
- [2] World Health Organization (WHO). "Simulation Exercise". [https://extranet.who.int/sph/simulation-exercise]. Accessed on 19 August 2020.
- [3] World Health Organization (WHO). "Libya Country Profile". [https://www.who.int/countries/lby/en/]. Accessed on 19 August 2020.
- [4] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 19 August 2020.

3.2.2 Private sector engagement in exercises

3.2.2a

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

Yes = 1, No = 0

Current Year Score: 0

There is no evidence that the country has, in the past year, undergone a national-level biological threat-focused exercise that has included private sector representatives. The National Center for Disease Control (NCDC) and Ministry of Health websites provide no such information [1, 2], nor does the Joint External Evaluation of IHR (International Health Regulations) Core Capacities of Libya Mission Report, which was conducted between 9-15 July 2018 [3] or the World Health Organization (WHO) website page - After Action Review [4]. There was also no evidence on the WHO Simulation Exercise page. [5]

[1] National Center for Disease Control. "National Coronavirus Response and Confrontation Plan".

[https://ncdc.org.ly/Ar/17 3 2020-2/]. Accessed on 16 August 2020.

- [2] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 16 August 2020.
- [3] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of Libya Mission Report (9 15 July 2018)". [https://apps.who.int/iris/bitstream/handle/10665/312106/WHO-WHE-CPI-2019.37-eng.pdf?ua=1]. Accessed on 16 August 2020.
- [4] World Health Organization (WHO). "After Action Review". [https://extranet.who.int/sph/after-action-review]. Accessed on 16 August 2020.
- [5] World Health Organization (WHO). "Simulation Exercise". [https://extranet.who.int/sph/simulation-exercise]. Accessed on 16 August 2020.

3.3 EMERGENCY RESPONSE OPERATION

3.3.1 Emergency response operation

3.3.1a

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

Yes = 1, No = 0

Current Year Score: 1

There is evidence that Libya has in place a newly operational Emergency Operations Center (EOC). Previous evidence from the Joint External Evaluation of IHR Core Capacities of Libya Mission Report, conducted between 9-15 July 2018, indicated that "the Emergency Operations Center has been established but is non-functional." [1] However, in December 2019, Libya inaugurated its health-focused EOC (called the "Community Health Emergency Operations Center" in English) with support



from the World Health Organization (WHO). The official press announcement notes that this is the first of its kind in Libya. [2]

[1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of Libya Mission Report (9 - 15 July 2018)". [https://apps.who.int/iris/bitstream/handle/10665/312106/WHO-WHE-CPI-2019.37-eng.pdf?ua=1]. Accessed on 16 August 2020.

[2] National Center for Disease Control. [https://ncdc.org.ly/Ar/23 10 2019/]]. Accessed on 16 August 2020.

3.3.1b

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

Yes = 1, No = 0

Current Year Score: 0

Although the Emergency Operations Center (EOC) exists, there is insufficient evidence that the EOC is required to conduct a drill for a public health emergency scenario at least once per year or evidence that they conduct a drill at least once per year. In December 2019, Libya inaugurated its health-focused emergency operations center (called the "Community Health Emergency Operations Center" in English) with support from the WHO. The official press announcement notes that this is the first of its kind in Libya. [1] However, the Ministry of Health website does not provide information on if there is a requirement to conduct an annual drill or if one is conducted on an annual basis. [2] The United Nations International Strategy for Disaster Reduction's Sendai framework website shows that Libya has not reported and disasters from 2005 to 2020 and therefore does not provide information that shows that the country has in place an EOC that is required to conduct a drill at least once per year. [3] Although Libya has a Joint External Evaluation report, it was conducted between 9-15 July 2018, prior to the inauguration of the new EOC. The report states that "The Emergency Operations Center has been established but is nonfunctional," and that "since the EOC is yet to be activated, its capacity for coordinating response has not been tested yet." [4]

- [1] National Center for Disease Control. [https://ncdc.org.ly/Ar/23_10_2019/]]. Accessed on 16 August 2020.
- [2] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 19 August 20.
- [3] United Nations International Strategy for Disaster Reduction. "Sendai Framework for Disaster Risk".

[https://sendaimonitor.unisdr.org/]. Accessed on 10 October 2020.

[4] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of Libya Mission Report (9 - 15 July 2018)". [https://apps.who.int/iris/bitstream/handle/10665/312106/WHO-WHE-CPI-2019.37-eng.pdf?ua=1]. Accessed on 19 August 20.

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

Although the Emergency Operations Center (EOC) exists, there is insufficient evidence that shows it 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. In December 2019, Libya inaugurated its health-focused emergency operations center (called the "Community Health Emergency Operations Center" in English) with support from the World



Health Organization (WHO). The official press announcement notes that this is the first of its kind in Libya. [1] However, the Ministry of Health website does not provide information on if the EOC is able to activate within 120 minutes of a public health emergency or scenario. [2] An article in the National Center for Disease Control (NCDC) website states that on 27 January 2020, an emergency meeting was conducted about the spread of the new coronavirus in China but nothing further. [3] The United Nations International Strategy for Disaster Reduction's Sendai framework website shows that Libya has not reported and disasters from 2005 to 2020 and therefore does not provide information that shows that the country has in place an EOC can conduct, or has conducted within the last year, a coordinated emergency response or emergency response exercise activated within 120 minutes of the identification of the public health emergency/scenario. [4] Although Libya has a Joint External Evaluation report, it was conducted between 9-15 July 2018, prior to the inauguration of the new EOC. The report states that "[t]he Emergency Operations Center has been established but is non-functional "and "that "since the EOC is yet to be activated, its capacity for coordinating response has not been tested yet" [5]

- [1] National Center for Disease Control. [https://ncdc.org.ly/Ar/23_10_2019/]]. Accessed on 16 August 2020.
- [2] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 19 August 20.
- [3] National Center for Disease Control. [https://ncdc.org.ly/Ar/28_1_2020-2/]. Accessed on 19 August 2020.
- $[4] \ United \ Nations \ International \ Strategy \ for \ Disaster \ Reduction. \ "Sendai \ Framework \ for \ Disaster \ Risk".$

[https://sendaimonitor.unisdr.org/]. Accessed on 11 October 2020.

[5] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of Libya Mission Report (9 - 15 July 2018)". [https://apps.who.int/iris/bitstream/handle/10665/312106/WHO-WHE-CPI-2019.37-eng.pdf?ua=1]. Accessed on 19 August 2020.

3.4 LINKING PUBLIC HEALTH AND SECURITY AUTHORITIES

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

3.4.1a

Does the country meet one of the following criteria?

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

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

Current Year Score: 0

There is no evidence that public health and national security authorities have carried out an exercise to respond to a potential deliberate biological event (i.e. bioterrorism attack). Libya does not have standard operating procedures, guidelines, MOUs (Memorandum of Understanding) or other agreements between the public health and security authorities to respond to a potential deliberate biological event (i.e. bioterrorism attack). The Joint External Evaluation of IHR (International Health Regulations) Core Capacities of Libya Mission Report, conducted between 9-15 July 2018, states that "There is no memorandum of understanding or other agreement between public health and security authority entities at the national level." [1] The Ministry of Health website does not provide information that shows that public health and national security authorities have carried out an exercise to respond to a potential deliberate biological event (i.e. bioterrorism attack) nor provides information that there are publicly available standard operating procedures, guidelines, MOUs or other agreements between the public health and security authorities to respond to a potential deliberate biological event (i.e. bioterrorism



attack). [2] The World Organization for Animal Health (OIE) Performance of Veterinary Services (PVS) Evaluation Reports website does not list Libya as one of the countries that has a PVS Evaluation report that is publicly available and does not provide information that shows that public health and national security authorities have carried out an exercise to respond to a potential deliberate biological event (i.e. bioterrorism attack) nor provides information that there are publicly available standard operating procedures, guidelines, MOUs or other agreements between the public health and security authorities to respond to a potential deliberate biological event (i.e. bioterrorism attack). [3] The Ministry of Justice website does not provide information that shows that public health and national security authorities have carried out an exercise to respond to a potential deliberate biological event (i.e. bioterrorism attack) nor provides information that there are publicly available standard operating procedures, guidelines, MOUs or other agreements between the public health and security authorities to respond to a potential deliberate biological event (i.e. bioterrorism attack). [4]

- [1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of Libya Mission Report (9 15 July 2018)". [https://apps.who.int/iris/bitstream/handle/10665/312106/WHO-WHE-CPI-2019.37-eng.pdf?ua=1]. Accessed on 19 August 2020.
- [2] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 19 August 2020.
- [3] World Organization for Animal Health (OIE). "OIE PVS Evaluation Reports" [http://www.oie.int/solidarity/pvs-evaluations/pvs-evaluation-reports/]. Accessed on 19 August 2020.
- [4] Ministry of Justice. [http://aladel.gov.ly]. Accessed on 19 August 2020.

3.5 RISK COMMUNICATIONS

3.5.1 Public communication

3.5.1b

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

Yes = 1, No = 0

Current Year Score: 0

There is no evidence that the strategy (or other legislation, regulation or strategy document used to guide national public health response) outlines how messages will reach populations and sectors with different communications needs (e.g. different languages, location within country, media reach, etc.) There is no evidence that Libya has a risk communication strategy. The Joint External Evaluation of International Health Regulations (IHR) Core Capacities of Libya Mission Report, conducted between 9-15 July 2018, does not provide information on such a strategy (or other legislation, regulation or strategy document used to guide national public health response) [1], nor could such information be found on the websites of the Ministry of Health or the National Center for Disease control [2, 3]

- [1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of Libya Mission Report (9 15 July 2018)". [https://apps.who.int/iris/bitstream/handle/10665/312106/WHO-WHE-CPI-2019.37-eng.pdf?ua=1]. Accessed on 20 August 2020.
- [2] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 20 August 2020.
- [3] National Center for Disease Control. [https://ncdc.org.ly/Ar/serv1/]. Accessed on 20 August 2020.



3.5.1 Risk communication planning

3.5.1a

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

Yes = 1, No = 0

Current Year Score: 0

There is no evidence that Libya has 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. However, The National Center for Disease Control (NCDC) website shows that their media office has received trainings from the European Union program (EULEAD) on communication strategies for managing health crises. [1] The Joint External Evaluation of IHR Core Capacities of Libya Mission Report, conducted between 9-15 July 2018, states that "The public health system in Libya has deteriorated due mainly to political and governance instability, scarcity of resources, and exodus of health expertise. The ongoing state of emergency has given little room for recovery of health services including health communication capacities." [2] The Ministry of Health website does not provide information that shows that the country has 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. [3]

- [1] National Centre for Disease Control. [https://ncdc.org.ly/Ar/9_7_2020/]. Accessed on 20 August 2020.
- [2] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of Libya Mission Report (9 15 July 2018)". [https://apps.who.int/iris/bitstream/handle/10665/312106/WHO-WHE-CPI-2019.37-eng.pdf?ua=1]. Accessed on 20 August 2020.
- [3] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 20 August 2020.

3.5.1c

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

Yes = 1, No = 0

Current Year Score: 0

There is no evidence that 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. There is no evidence that Libya has a risk communication strategy. The Joint External Evaluation of IHR Core Capacities of Libya Mission Report, conducted between 9-15 July 2018, does not provide any such evidence. [1] The Ministry of Health and National Center for Disease control website also provide no such information. [2, 3]

[1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of Libya Mission Report (9 - 15 July 2018)". [https://apps.who.int/iris/bitstream/handle/10665/312106/WHO-WHE-CPI-2019.37-eng.pdf?ua=1]. Accessed on 20 August 2020.

[2] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 20 August 2020.



[3] National Center for Disease Control. [https://ncdc.org.ly/Ar/serv1/]. Accessed on 20 August 2020.

3.5.2 Public communication

3.5.2a

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

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

Current Year Score: 2

There is evidence that shows the government utilizes media platforms (social media, website updates, etc.) to inform the public about public health emergencies but only during active emergencies. The National Center for Disease Control (NCDC) are actively sharing 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 for example, a press release was published in both NCDC website and their social media platforms to inform the public about ongoing disinformation on severe shortage on laboratory triggers for laboratory diagnosis of coronavirus.[1,2]. The Ministry of Health is currently using Facebook to inform the public about public health emergencies such as a recent Facebook post about planning to deal with public health emergency caused by ongoing civil war. The Ministry also uses its news section of the website to communicate public health emergencies. [3,4] The Ministry of Defense website does not provide information that shows that the government utilizes media platforms (social media, website updates, etc.) to inform the public about public health emergencies. [5]

- [1] National Center for Disease Control. [https://ncdc.org.ly/Ar/5 8 2020/ /]. Accessed on 20 August 2020.
- [2] National Center for Disease Control. "Facebook page". [https://www.facebook.com/NCDC.LY/]. Accessed on 20 August 2020.
- [3] Ministry of Health. "Facebook page". [https://www.facebook.com/Ministry.of.Health.Ly/]. Accessed on 20 August 2020.
- [4] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 20 August 2020.
- [5] Ministry of Defense. "Facebook page". [https://www.facebook.com/pages/Ministry-Of-Defence-Libya/533350363773635]. Accessed on 20 August 2020.

3.5.2b

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

No = 1, Yes = 0

Current Year Score: 1

There is no evidence shows that senior leaders (president or ministers) have shared misinformation or disinformation on infectious diseases in the past two years. Neither the Ministry of Health nor the National Center for Disease Control websites provide information that shows senior leaders (president or ministers) such information. [1, 2]

- [1] National Center for Disease Control. [https://ncdc.org.ly/Ar/serv1/]. Accessed on 20 August 2020.
- [2] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 20 August 2020.



3.6 ACCESS TO COMMUNICATIONS INFRASTRUCTURE

3.6.1 Internet users

3.6.1a

Percentage of households with Internet

Input number

Current Year Score: 21.76

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: 91.48

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: 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 evidence shows that Libya has, in the past year, issued a restriction, without international/bilateral support, on the export/import of medical goods (e.g. medicines, oxygen, medical supplies, Personal Protective Equipment (PPE)) due to an infectious disease outbreak. The Ministry of Health, National Center for Disease Control and Ministry of Agriculture websites provide no information that shows Libya has issued such a restriction due to an infectious disease outbreak. [1, 2, 3]

- [1] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 20 August 2020.
- [2] National Center for Disease Control. [https://ncdc.org.ly/Ar/serv1/]. Accessed on 20 August 2020.
- [3] Ministry of Agriculture, Animal Resources and Fisheries. [https://www.agriculture.gov.ly/2020/]. Accessed on 20 August 2020

3.7.1b

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

Yes = 0, No = 1

Current Year Score: 1

There is no evidence that Libya has, in the past year, 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. The World Organization for Animal Health (OIE) Weekly disease information website does not provide information on any such restriction [1,2] There is no evidence of a ban from the Ministry of Health, Ministry of Agriculture, Animal Resources and Fisheries websites nor the website of the Libyan News Agency. [3,4,5] International and local media outlets such as BBC, Alayyam and Almarsad Libyan newspapers' websites do not provide information that shows Libya has issued a restriction, without international/bilateral support, on the export/import of non-medical goods due to an infectious disease outbreak.

[1] World Organization for Animal Health (OIE). "Weekly disease information".

[https://www.oie.int/wahis_2/public/wahid.php/Diseaseinformation/WI]. Accessed on 20 August 2020.

- [2] World Health Organization (WHO). "Disease Outbreak News". [http://www.who.int/csr/don/en/]. Accessed on 20 August 2020
- [3] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 20 August 2020.
- [4] Ministry of Agriculture, Animal Resources and Fisheries. [https://www.agriculture.gov.ly/]. Accessed on 20 August 2020.
- [5] Libyan News Agency [https://www.lana-news.ly/]. Accessed on 20 August 2020.



3.7.2 Travel restrictions

3.7.2a

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

Yes = 0, No = 1

Current Year Score: 0

There is evidence that in the past year, Libya has implemented a ban, without international/bilateral support, on travelers arriving from a specific country or countries due to an infectious disease outbreak. The United States embassy in Libya website states that "On March 14, 2020, the Government of National Accord (GNA) announced a series of strict travel restrictions and social distancing measures to mitigate the spread of Covid-19. As of March 16, all land, sea, and air borders into Libya were closed to foreigners for a period of three weeks." [1]

[1] United Stated Embassy in Libya. "Covid-19 Information". [https://ly.usembassy.gov/u-s-citizen-services/covid-19-information/]. Accessed on 11 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: 209.05

2017

WHO; national sources

4.1.1b

Nurses and midwives per 100,000 people

Input number

Current Year Score: 653.05



2017

WHO; national sources

4.1.1c

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

Yes = 1, No = 0

Current Year Score: 0

There is insufficient evidence that the country has a public workforce strategy in place (which has been updated in the past five years) to identify fields where there is an insufficient workforce and strategies to address these shortcomings. The Joint External Evaluation of IHR Core Capacities of Libya Mission Report, conducted between 9-15 July 2018, states that "The Libya strategic plan for workforce development has been designed but not implemented and there is lack of coordination among IHR relevant sectors in human resource development." [1] The Ministry of Health. Ministry of Labor and Ministry of Education websites provide no information that shows Libya 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. [2, 3, 4]

- [1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of Libya Mission Report (9 15 July 2018)". [https://apps.who.int/iris/bitstream/handle/10665/312106/WHO-WHE-CPI-2019.37-eng.pdf?ua=1]. Accessed on 21 August 2020.
- [2] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 21 August 2020.
- [3] Ministry of Labor. [http://labour.gov.ly/]. Accessed on 21 August 2020.
- [4] Ministry of Education [https://moe.gov.ly/]. Accessed on 21 August 2020.

4.1.2 Facilities capacity

4.1.2a

Hospital beds per 100,000 people Input number

Current Year Score: 320

2017

WHO/World Bank; national sources

4.1.2b

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

Yes = 1 , No = 0

Current Year Score: 0

Although there is evidence that Libya has the capacity to isolate patients, there is insufficient evidence that existing facilities are able to effectively isolate patients with highly communicable diseases. Two articles at the National Center for Disease



Control (NCDC) website, published in February and March 2020, state that there are 4 main isolations units installed across the country, one at the Benghazi Medical Center, one at Misurata Respiratory diseases hospital and 2 in Tripoli at the Central hospital and Respiratory diseases hospital with the capacity of 70 beds and 30 intensive care rooms. In addition another article at the National Center for Disease control state that the Ministry of health will provide respirators for isolation units [1, 2] Videos of the isolation units show that while ventilation units are included, the rooms themselves are not individually isolated. [3] The Ministry of Health website does not provide information that shows that the country 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. [4] The websites of some of the largest hospitals in Libya and Misrata Medical Center and Saint James Hospital do not provide information that shows that the country 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. [5,6]

- [1] National Center for Disease Control. [https://ncdc.org.ly/Ar/14_2_2020-2/]. Accessed on 20 August 2020.
- [2] National Center for Disease Control. [https://ncdc.org.ly/Ar/29_3_2020/]. Accessed on 20 August 2020.
- [3] National Center for Disease Control. [https://ncdc.org.ly/Ar/26_4_2020-2/]. Accessed on 26 October 2020.
- [4] The Ministry of Health. [https://www.health.gov.ly/]. Accessed on 20 August 2020.
- [5] Misrata Medical Centre. [http://mmc.med.ly/]. Accessed on 20 August 2020.
- [6] Saint James Hospital. [http://www.stjhlibya.com/site/ar/]. Accessed 20 August 2020.

4.1.2c

Does the country meet one of the following criteria?

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

Yes = 1, No = 0

Current Year Score: 0

There is insufficient evidence that Libya has demonstrated capacity to expand isolation capacity in response to an outbreak, and insufficient 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. The National Center for Disease Control (NCDC) website however has several articles showing that Libya demonstrated some response capacity in different cities to face the Covid-19 outbreak [1,2,3]. The joint external evaluation of IHR core capacities says that Libya has limited equipped isolation units at healthcare facilities and does not provide information about has developed, updated or tested a plan to expand isolation capacity in response to an infectious disease outbreak.[4] The Ministry of Health does not provide information that shows that there is any evidence that the country has demonstrated capacity to expand isolation capacity in response to an infectious disease outbreak in the past two years or 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. [5]

- [1] National Center for Disease Control. [https://ncdc.org.ly/Ar/6 2 2020-3/]. Accessed on 06 April 2021.
- [2] National Center for Disease Control. [https://ncdc.org.ly/Ar/22_10_2020-2/]. Accessed on 06 April 2021.
- [3] National Center for Disease Control. [https://ncdc.org.ly/Ar/18_3_2021/]. Accessed on 06 April 2021.
- [4] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of Libya Mission Report (9 15 July 2018)". [https://apps.who.int/iris/bitstream/handle/10665/312106/WHO-WHE-CPI-2019.37-eng.pdf?ua=1]. Accessed on 06 April 2021.
- [5] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 06 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 no evidence that there is 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.

The Ministry of Finance, Ministry of Health and Ministry of Agriculture, Animal Resources and Fisheries websites provide no information that shows there is a national procurement protocol in place for this purpose. [1, 3, 4] The Joint External Evaluation of IHR (International Health Regulations) Core Capacities of Libya Mission Report conducted between 9-15 July 2018 also provides no information on such a protocol. [2]

- [1] Ministry of Finance [https://finance.gov.ly/]. Accessed on 20 August 2020.
- [2] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of Libya Mission Report (9 15 July 2018)". [https://apps.who.int/iris/bitstream/handle/10665/312106/WHO-WHE-CPI-2019.37-eng.pdf?ua=1]. Accessed on 20 August 2020.
- [3] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 20 August 2020.
- [4] Ministry of Agriculture, Animal Resources and Fisheries. [https://www.agriculture.gov.ly/]. Accessed on 20 August 2020.

4.2.2 Stockpiling for emergencies

4.2.2a

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

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

Current Year Score: 0

There is insufficient evidence that Libya has a stockpile of medical supplies (e.g. medical countermeasures (MCM), medicines, vaccines, medical equipment, personal protective equipment (PPE)) for national use during a public health emergency. Although there is evidence of stockpiling efforts taking place during the Covid-19 pandemic, there is no evidence of a stockpile of medical supplies that existed prior to the beginning of the outbreak. In 2020, the National Center for Disease Control (NCDC) received a stockpile of medical supplies (e.g. equipment, PPE) from the Ministry of Health. An article published in 11 April 2020, states that there is stockpile in the NCDC, which is responsible for supplying monitoring and rapid-response teams across Libya. However, the article does not mention that Libya had stockpile medical supplies before the Covid-19 outbreak. [1,2,3] The Joint External Evaluation of IHR (International Health Regulations) Core Capacities of Libya Mission Report, conducted between 9-15 July 2018, states that "Previously stockpiles for at least 6 months were applied, but



this is no longer the case. During the last three decades, Libya has sent medical supplies and personnel to many countries." Furthermore, the report notes that "in addition to the lack of a national infection prevention and control (IPC) manual, with guidelines and policies, there is a shortage of needed PPE, limited equipped isolation units at healthcare facilities and a shortage of assigned IPC staff in healthcare facilities, which represent a major challenge." [4] The Ministry of Health website does not provide information that shows that Libya have a stockpile of medical supplies (e.g. MCM, medicines, vaccines, medical equipment, PPE) for national use during a public health emergency.[5]

- [1] National Center for Disease Control. [https://ncdc.org.ly/Ar/17_5_2020-2/]. Accessed on 06 April 2021.
- [2] National Center for Disease Control. [https://ncdc.org.ly/Ar/22 4 2020/]. Accessed on 06 April 2021.
- [3] National Center for Disease Control. [https://ncdc.org.ly/Ar/11 4 2020/]. Accessed on 06 April 2021.
- [4] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of Libya Mission Report (9 15 July 2018)". [https://apps.who.int/iris/bitstream/handle/10665/312106/WHO-WHE-CPI-2019.37-eng.pdf?ua=1]. Accessed on 06 April 2021.
- [5] The Ministry of Health. [https://www.health.gov.ly/]. Accessed on 06 April 2021.

4.2.2b

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

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

Current Year Score: 0

There is insufficient evidence that shows Libya has a stockpile of laboratory supplies (e.g. reagents, media) for national use during a public health emergency. Neither the National Center for Disease Control (NCDC) nor the Ministry of Health websites have information that show Libya has a stockpile of laboratory supplies (e.g. reagents, media) for national use during a public health emergency.[1, 3] The Joint External Evaluation of IHR (International Health Regulations) Core Capacities of Libya Mission Report, conducted between 9-15 July 2018, states that "There is no local production of antibiotics, vaccines, laboratory supplies or equipment and no agreements with manufacturers or distributors to procure medical countermeasures during emergencies." [2]

- [1] National Center for Disease Control. [https://ncdc.org.ly/Ar/]. Accessed on 20 August 2020.
- [2] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of Libya Mission Report (9 15 July 2018)". [https://apps.who.int/iris/bitstream/handle/10665/312106/WHO-WHE-CPI-2019.37-eng.pdf?ua=1]. Accessed on 20 August 2020.
- [3] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 20 August 2020.

4.2.2c

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

Yes = 1, No = 0

Current Year Score: 0

There is no evidence that Libya conducts or requires an annual review of the national stockpile to ensure the supply is sufficient for a public health emergency. Neither the Ministry of Health website [1] nor the Ministry of Agriculture, Animal Resources and Fisheries [2] or National Center for Disease Control [3] websites provide information that shows that the country conducts or requires an annual review of the national stockpile to ensure the supply is sufficient for a public health



emergency. There is no website available for the Ministry of Defense.

- [1] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 05 April 2021.
- [2] Ministry of Agriculture, Animal Resources and Fisheries. [https://www.agriculture.gov.ly/]. Accessed on 05 April 2021.
- [3] National Center for Disease Control. [https://ncdc.org.ly/Ar/]. Accessed on 05 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: 0

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

The Joint External Evaluation of IHR Core Capacities of Libya Mission Report, conducted between 9-15 July 2018, states that" There is no local production of antibiotics, vaccines, laboratory supplies or equipment and no agreements with manufacturers or distributors to procure medical countermeasures during emergencies". [1] An article at The National Center for Disease Control (NCDC) websites confirms that NCDC has announced a 3-years contract to supply Libya with necessary vaccinations in a step to eliminate the vaccination crisis in the country. The NCDC website does not provide information that shows Libya has a plan/agreement to leverage domestic manufacturing capacity to produce medical supplies for national use during a public health emergency. [2,3] Neither the Ministry of Health website nor the Ministry of Finance websites provide information that shows evidence of a plan/agreement to leverage domestic manufacturing capacity to produce medical supplies nor a plan/mechanism to procure medical supplies for national use during a public health emergency. [4, 5] There is no website available for the Ministry of Defense.

- [1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of Libya Mission Report (9 15 July 2018)". [https://apps.who.int/iris/bitstream/handle/10665/312106/WHO-WHE-CPI-2019.37-eng.pdf?ua=1]. Accessed on 06 April 2021.
- [2] National Center for Disease Control. [https://ncdc.org.ly/Ar/]. Accessed on 06 April 2021.
- [3] National Center for Disease Control. [https://ncdc.org.ly/Ar/27_6_2019-2/]. Accessed on 06 April 2021.
- [4] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 06 April 2021.
- [5] Ministry of Finance [https://finance.gov.ly/]. Accessed on 06 April 2021.

4.2.3b

Does the country meet one of the following criteria?

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



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

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

Current Year Score: 0

There is no evidence that Libya has a plan/agreement to leverage domestic manufacturing capacity to produce laboratory supplies (e.g. reagents, media) for national use during a public health emergency or a plan/mechanism to procure laboratory supplies (e.g. reagents, media) for national use during a public health emergency. The Joint External Evaluation of IHR Core Capacities of Libya Mission Report, conducted between 9-15 July 2018, states that" There is no local production of antibiotics, vaccines, laboratory supplies or equipment and no agreements with manufacturers or distributors to procure medical countermeasures during emergencies". [1] Neither the National Center for Disease Control (NCDC) website nor the Ministry of Health website provide information that shows Libya has a plan/agreement to leverage domestic manufacturing capacity to produce laboratory supplies (e.g. reagents, media) for national use during a public health emergency or a plan/mechanism to procure laboratory supplies (e.g. reagents, media) for national use during a public health emergency. [2, 3]

- [1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of Libya Mission Report (9 15 July 2018)". [https://apps.who.int/iris/bitstream/handle/10665/312106/WHO-WHE-CPI-2019.37-eng.pdf?ua=1]. Accessed on 20 August 2020.
- [2] National Center for Disease Control. [https://ncdc.org.ly/Ar/]. Accessed on 20 August 2020.
- [3] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 20 August 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 evidence that the country has a plan, program, or guidelines in place for dispensing medical countermeasures for national use during a public health emergency (i.e. antibiotics, vaccines, therapeutics and diagnostics).

The Joint External Evaluation of IHR Core Capacities of Libya Mission Report, conducted between 9-15 July 2018, provides no information to suggest the country has such a plan, program, or guidelines in place. [1] The Ministry of Health and Food and Drug Control Center websites also contain no such information. [2,3]

- [1] World Health Organization (WHO). "Joint External Evaluation (JEE) mission reports" [https://apps.who.int/iris/bitstream/handle/10665/312106/WHO-WHE-CPI-2019.37-eng.pdf?ua=1/]. Accessed on 21 August 2020.
- [2] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 21 August 2020.
- [3] Food and Drug Control Centrer. [http://fdcc.ly/]. Accessed on 21 August 2020.



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

4.3.2a

Is there a public plan in place to receive health personnel from other countries to respond to a public health emergency? Yes = 1, No = 0

Current Year Score: 0

Libya does not have a public plan in place to receive health personnel from other countries to respond to a public health emergency. The Joint External Evaluation of International Health Regulations (IHR) Core Capacities of Libya Mission Report, conducted between 9-15 July 2018, stated that "Libya had sent and received many health personnel during public health emergencies (illegal immigrants), but there was no written plan for regulation, training, and safety of health personnel during an international deployment." [1] Neither the Ministry of Health website nor the Food and Drug Control Center website provide information that shows that there is a public plan in place to receive health personnel from other countries to respond to a public health emergency. [3]

- [1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of Libya Mission Report (9 15 July 2018)". [https://apps.who.int/iris/bitstream/handle/10665/312106/WHO-WHE-CPI-2019.37-eng.pdf?ua=1]. Accessed on 21 August 2020.
- [2] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 21 August 2020.
- [3] Food and Drug Control Center. [http://fdcc.ly/]. Accessed on 21 August 2020.

4.4 HEALTHCARE ACCESS

4.4.1 Access to healthcare

4.4.1a

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

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

Current Year Score: 3

2020

World Policy Analysis Center

4.4.1b

Access to skilled birth attendants (% of population)

Input number

Current Year Score: 99.9

2013

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: -

2017

WHO Global Health Expenditure database

4.4.2 Paid medical leave

4.4.2a

Are workers guaranteed paid sick leave?

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

Current Year Score: 2

2020

World Policy Analysis Center

4.4.3 Healthcare worker access to healthcare

4.4.3a

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

Yes = 1, No = 0

Current Year Score: 0

There is no evidence that 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.

Neither the Ministry of Health website nor the National Center for Disease Control (NCDC) website provide information that shows that 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. [1,2]

- [1] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 21 August 2020.
- [2] National Center for Disease Control. [https://ncdc.org.ly/Ar/]. Accessed on 21 August 2020.



4.5 COMMUNICATIONS WITH HEALTHCARE WORKERS DURING A PUBLIC HEALTH EMERGENCY

4.5.1 Communication with healthcare workers

4.5.1a

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

Yes = 1, No = 0

Current Year Score: 0

There is no evidence that there is a system in place for public health officials and healthcare workers to communicate during a public health emergency on the Ministry of Health website. [1]

[1] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 21 August 2020.

4.5.1b

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

Yes = 1, No = 0

Current Year Score: 0

There is no evidence of a system in place for public health officials and healthcare workers to communicate during a public health emergency that encompass healthcare workers in both the public and private sector.

The Ministry of Health website provides no information to suggest there is a system in place for public health officials and healthcare workers to communicate during a public health emergency. [1]

[1] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 21 August 2020.

4.6 INFECTION CONTROL PRACTICES AND AVAILABILITY OF EQUIPMENT

4.6.1 Healthcare associated infection (HCAI) prevention and control programs

4.6.1a

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

Yes = 1, No = 0

Current Year Score: 0

Libya's national public health system does not have capabilities for monitoring and tracking the number of healthcareassociated infections (HCIAs) that take place in healthcare facilities. The Joint External Evaluation of IHR Core Capacities of Libya Mission Report, conducted between 9-15 July 2018, states "There is no national Infection Prevention and Control (IPC)



program, nor guidelines. There are no adequate resources for establishing and implementing infection prevention and control at national and healthcare setting level." [1] Neither the Ministry of Health website nor the State of Libya National Action Plan on Prevention and Containment of Antimicrobial Resistance 2019-2023, published in 2018, provide information that shows that the national public health system is monitoring for and tracking the number of HCAIs that take place in healthcare facilities. [2, 3]

[1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of Libya Mission Report (9 - 15 July 2018)". [https://apps.who.int/iris/bitstream/handle/10665/312106/WHO-WHE-CPI-2019.37-eng.pdf?ua=1]. Accessed on 21 August 2020.

- [2] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 21 August 2020.
- [3] World Health Organization (WHO). 2018. Library of National Action Plans. "State of Libya, National Action Plan on Prevention and Containment of Antimicrobial Resistance 2019-2023".

[http://apps.who.int/datacol/answer_upload.asp?survey_id=666&view_id=722&question_id=13163&answer_id=19958&res pondent_id=267192]. Accessed on 21 August 2020.

4.7 CAPACITY TO TEST AND APPROVE NEW MEDICAL

COUNTERMEASURES

4.7.1 Regulatory process for conducting clinical trials of unregistered interventions

4.7.1a

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

Yes = 1, No = 0

Current Year Score: 0

There is no evidence that there is a national requirement for ethical review (e.g. from an ethics committee or via Institutional Review Board approval) before beginning a clinical trial. Neither the Ministry of Health website nor the Food and Drug Control Center website provide information that shows that there is a national requirement for ethical review (e.g. from an ethics committee or via Institutional Review Board approval) before beginning a clinical trial. [2]

- [1] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 21 August 2020.
- [2] Food and Drug Control Center. [http://fdcc.ly/]. Accessed on 21 August 2020.

4.7.1b

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

Yes = 1, No = 0

Current Year Score: 0

There is no evidence that there is an expedited process for approving clinical trials for unregistered medical countermeasures to treat ongoing pandemics. There is no evidence that there is a national requirement for ethical review (e.g. from an ethics committee or via Institutional Review Board approval) before beginning a clinical trial and neither the Ministry of Health website nor the Food and Drug Control Center website provide information that shows that there is an expedited process for



approving clinical trials for unregistered medical countermeasures (MCM) to treat ongoing epidemics. [1, 2]

- [1] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 21 August 2020.
- [2] Food and Drug Control Center. [http://fdcc.ly/]. Accessed on 21 August 2020.

4.7.2 Regulatory process for approving medical countermeasures

4.7.2a

Is there a government agency responsible for approving new medical countermeasures (MCM) for humans? Yes = 1, No = 0

Current Year Score: 1

There is evidence that there is a government agency responsible for approving new medical countermeasures for humans. The Food and Drug Control Center (FDCC) is the government entity responsible for approving new medical countermeasures for humans. It states on its website that it is responsible for registering and approving new drugs for humans. [1] The FDCC's page on Facebook is very active with multiple updates a day, which leads to the conclusion that the entity still exists even though the website is not active [2]

- [1] Food and Drug Control Center. [http://fdcc.ly/]. Accessed on 21 August 2020.
- [2] Food and Drug Control Center. "Facebook page". [https://ar-ar.facebook.com/Alrkaba/]. Accessed on 21 August 2020.

4.7.2b

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

Yes = 1, No = 0

Current Year Score: 0

There is no evidence that there is an expedited process for approving medical countermeasures for human use during public health emergencies. Neither then Ministry of Health website nor the Food and Drug Control Center website provide information that shows that there is an expedited process for approving medical countermeasures for human use during public health emergencies. [1, 2]

- [1] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 21 August 2020.
- [2] Food and Drug Control Center. [http://fdcc.ly/]. Accessed on 21 August 2020.



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

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

5.1.1 Official IHR reporting

5.1.1a

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

Yes = 1, No = 0

Current Year Score: 1

2020

World Health Organization

5.1.2 Integration of health into disaster risk reduction

5.1.2a

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

Yes = 1, No = 0

Current Year Score: 0

There is no evidence that pandemics are integrated into the national risk reduction strategy or that there is a standalone national disaster risk reduction strategy for pandemics. The Ministry of Health website does not provide any such information. [1]

[1] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 21 August 2020.

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

5.2.1 Cross-border agreements

5.2.1a

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

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

Current Year Score: 0



There is no evidence that Libya has cross-border agreements, protocols or Memorandum of Understanding (MOUs) with neighboring countries, or as part of a regional group, with regard to public health emergencies. The Ministry of Health website does not provide information that shows that the country has cross-border agreements, protocols or MOUs with neighboring countries, or as part of a regional group, with regard to public health emergencies. Most regional or bilateral partnership agreements found are concerning free trade in Africa. None cover public health emergencies.

[1] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 21 August 2020.

5.2.1b

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

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

Current Year Score: 0

There is no evidence that Libya has cross-border agreements, protocols or Memorandum of Understanding (MOUs) with neighboring countries, or as part of a regional group, with regard to animal health emergencies. Neither the Ministry of Health nor the Ministry of Agriculture, Animal Resources and Fisheries websites provide information that shows that the country has cross-border agreements, protocols or MOUs with neighboring countries, or as part of a regional group, with regard to animal health emergencies. [1, 2] Most regional or bilateral partnership agreements found are concerning free trade in Africa. None cover public health emergencies, animal or otherwise.

- [1] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 21 August 2020.
- [2] Ministry of Agriculture, Animal Resources and Fisheries. [https://www.agriculture.gov.ly/]. Accessed on 21 August 2020.

5.3 INTERNATIONAL COMMITMENTS

5.3.1 Participation in international agreements

5.3.1a

Does the county have signatory and ratification (or same legal effect) status to the Biological Weapons Convention? Signed and ratified (or action having the same legal effect) = 2, Signed = 1, Non-compliant or not a member = 0 Current Year Score: 2

2021

Biological Weapons Convention

5.3.1b

Has the country submitted confidence building measures for the Biological Weapons Convention in the past three years? Yes = 1, No = 0

Current Year Score: 1

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: 0

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 insufficient evidence that Libya has allocated national funds to improve capacity to address epidemic threats within the past three years. The Joint External Evaluation of IHR Core Capacities of Libya Mission Report, conducted between 9-15 July 2018, states that "Libya needs to dedicate a specific organization or institute as the responsible body and activate or establish legislation and national guidelines for any public health emergency as well as review existing emergency preparedness and response plans to ensure an all-hazards approach is adopted. Risk and hazard mapping are a crucial step in this exercise and the availability of sufficient funds is mandatory." [1] The National Center for Disease Control (NCDC) website does not provide information that shows Libya has allocated national funds to improve capacity to address epidemic threats within the past three years. [2] The Ministry of Health websites does not provide information that shows Libya has allocated national funds to improve capacity to address epidemic threats within the past three years. [3] The Prime Minister's office websites does not provide information that shows Libya has allocated national funds to improve capacity to address epidemic threats within the past three years. [4]

- [1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of Libya Mission Report (9 15 July 2018)". [https://apps.who.int/iris/bitstream/handle/10665/312106/WHO-WHE-CPI-2019.37-eng.pdf?ua=1]. Accessed on 21 August 2020.
- [2] National Center for Disease Control. [https://ncdc.org.ly/Ar/27 6 2019-2/]. Accessed on 21 August 2020.
- [3] The Ministry of Health. [https://www.health.gov.ly/]. Accessed on 21 August 2020.
- [4] Prime Minister's office [https://backup.pm.gov.ly/]. Accessed on 21 August 2020.

5.5.2 Financing under Joint External Evaluation (JEE) and Performance of Veterinary Services (PVS) reports and gap analyses

5.5.2a

Does the Joint External Evaluation (JEE) report, National Action Plan for Health Security (NAPHS), and/or national GHSA roadmap allocate or describe specific funding from the national budget (covering a time-period either in the future or within the past five years) to address the identified gaps?

Yes = 1, No/country has not conducted a JEE = 0

Current Year Score: 0



2021

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

5.5.2b

Does the Performance of Veterinary Services (PVS) gap analysis and/or PVS assessment allocate or describe specific funding from the national budget (covering a time-period either in the future or within the past five years) to address the identified gaps?

Yes = 1, No/country has not conducted a PVS = 0

Current Year Score: 0

2021

OIE PVS assessments

5.5.3 Financing for emergency response

5.5.3a

Is there a publicly identified special emergency public financing mechanism and funds which the country can access in the face of a public health emergency (such as through a dedicated national reserve fund, an established agreement with the World Bank pandemic financing facility/other multilateral emergency funding mechanism, or other pathway identified through a public health or state of emergency act)?

Yes = 1, No = 0

Current Year Score: 0

There is insufficient evidence that there is a publicly identified special emergency public financing mechanism and funds that Libya can access in the face of public health emergency. However there is a dedicated national reserve fund called "Chapter 5- Contingency expenses". The Prime Minister's websites shows a Presidential Council decision published on 31 March 2020 allocating an amount of US\$ 16 million to face the risks of the Covid-19 pandemic that will be taken from the Contingency expenses fund, but there is no public information on the structure of the Contingency expenses fund. [1]

The International Development Association (IDA) website does not list Libya among countries that are eligible for funding. [2] The Pandemic Emergency Financing Facility (PEF) operational brief published in November 2017 states the conditions for receiving emergency funding. Libya is eligible to receive emergency funding as per the conditions. [3] The United Nation Central Emergency Response Fund 10 Years report published in 2016 provides no information that suggests there is a publicly identified special emergency public financing mechanism and funds which Libya 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) [4], nor does the Ministry of Health provide such information. [5]

- [1] Prime Minister's Office [https://backup.pm.gov.ly/]. Accessed on 22 August 2020.
- [2] International Development Association (IDA). "Borrowing Countries". [http://ida.worldbank.org/about/borrowing-countries]. Accessed on 22 August 2020.
- [3] Pandemic Emergency Financing Facility (PEF). November 2017. "Operational Brief for Eligible Countries". [http://pubdocs.worldbank.org/en/574211510673362977/PEF-Operational-Brief-Nov-2017.pdf]. Accessed on 22 August



2020.

[4] United Nation Central Emergency Response Fund. 2016. "10 Years Report".

[https://reliefweb.int/sites/reliefweb.int/files/resources/CERF10layout_AR_20160518.compressed.pdf]. Accessed on 22 August 2020.

[5] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 22 August 2020.

5.5.4 Accountability for commitments made at the international stage for addressing epidemic threats

5.5.4a

Is there evidence that senior leaders (president or ministers), in the past three years, have made a public commitment either to:

- Support other countries to improve capacity to address epidemic threats by providing financing or support?
- Improve the country's domestic capacity to address epidemic threats by expanding financing or requesting support to improve capacity?

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

Current Year Score: 0

There is no evidence that senior leaders (president or ministers) have made a public commitment either to support other countries to improve capacity to address epidemic threats by providing financing or support in the past three years or to improve its own domestic capacity to address epidemic threats by expanding financing or requesting support to improve capacity in the past three years.

The World Health Organization (WHO)'s Libya country profile website does not provide information that shows senior leaders (president or ministers) have made such a public commitment in the past three years. [1] Nor do the websites of the Ministry of Health, Ministry of Foreign Affairs, Ministry of Agriculture, Animal Resources and Fisheries, Prime Minister's office website provide such information. [2,3,4,5]

International and local media outlets such as the BBC, Alayyam and Almarsad Libyan newspapers' websites do not provide information that shows senior leaders (president or ministers) have made a public commitment either to support other countries to improve capacity to address epidemic threats by providing financing or support in the past three years or to improve its own domestic capacity to address epidemic threats by expanding financing or requesting support to improve capacity in the past three years.

- [1] World Health Organization (WHO). "Libya Country Profile". [https://www.who.int/countries/lby/en/]. Accessed on 22 August 2020.
- [2] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 22 August 2020.
- [3] Ministry of Foreign Affairs. [https://foreignmedia.ly/]. Accessed on 22 August 2020.
- [4] Ministry of Agriculture, Animal Resources and Fisheries. [https://www.agriculture.gov.ly/]. Accessed on 22 August 2020.
- [5] Prime Minister's Office. [https://backup.pm.gov.ly/]. Accessed on 22 August 2020.

5.5.4b

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

- Provided other countries with financing or technical support to improve capacity to address epidemic threats?



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

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

Current Year Score: 1

There is publicly available evidence that Libya has invested finances from donors or provided technical support to improve its own domestic capacity to address epidemic threats to improve capacity in the past three years. There is no evidence that Libya has invested finances or provided technical support to support other countries to improve capacity to address epidemic threats in the past three years. The Global Health Security tracking dashboard states that Libya received US\$54.33 million and dispersed \$49.70 million in the last three years to improve its own capacity. For example, within the past three years, the World Health Organization contributed approximately US\$2.3m for technical assistance to enhance surveillance and raise population immunity to the threshold needed to stop polio transmission in affected and at-risk areas. [1] The United States Agency for International Development (USAID) Libya country profile does not provide information that suggests the country has invested finances from donors or provided technical support to improve its own domestic capacity to address epidemic threats to improve capacity in the past three years or provided technical support to support other countries to improve capacity to address epidemic threats in the past three years. [2] The Ministry of Health does not provide information that shows that Libya has invested finances from donors or provided technical support to improve its own domestic or provided technical support to support other countries to improve capacity to address epidemic threats in the past three years. [3] The Ministry of Agriculture, Animal Resources and Fisheries does not provide information that shows that Libya has invested finances from donors or provided technical support to improve its own domestic or provided technical support to support other countries to improve capacity to address epidemic threats in the past three years. [4]

- [1] GHS Tracking Dashboard. [https://tracking.ghscosting.org/#analysis/SD/r]. Accessed on 22 August 2020.
- [2] US Aid. "Libya Country Profile". [https://www.usaid.gov/libya]. Accessed on 22 August 2020.
- [3] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 22 August 2020.
- [4] Ministry of Agriculture, Animal Resources and Fisheries. [https://www.agriculture.gov.ly/]. Accessed on 22 August 2020.

5.5.4c

Is there evidence that the country has fulfilled its full contribution to the WHO within the past two years? Yes = 1, No = 0

Current Year Score: 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 evidence that there is a plan or policy for sharing genetic data, epidemiological data, clinical specimens, and/or isolated specimens (biological materials) with international organizations and/or other countries that goes beyond influenza. Neither the Ministry of Health website nor the Ministry of Agriculture, Animal Resources and Fisheries website provide information that shows that there is a plan or policy for sharing genetic data, epidemiological data, clinical specimens, and/or isolated specimens (biological materials) with international organizations and/or other countries that goes beyond influenza. [1, 2] Libya does not have a Ministry of Research. No external documents were located.

- [1] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 22 August 2020.
- [2] Ministry of Agriculture, Animal Resources and Fisheries. [https://www.agriculture.gov.ly/]. Accessed on 22 August 2020.

5.6.1b

Is there public evidence that the country has not shared samples in accordance with the Pandemic Influenza Preparedness (PIP) framework in the past two years?

Yes = 0, No = 1

Current Year Score: 1

There is no evidence that Libya has not shared samples in accordance with the Pandemic Influenza Preparedness (PIP) framework in the past two years. The World Health Organization (WHO) Libya country profile website does not provide information that shows that the country has not shared samples in accordance with the PIP framework in the past two years. [1] The WHO PIP Recipient Countries document does not provide information that shows that the country has not shared samples in accordance with the PIP framework in the past two years. [2] The Ministry of Health website does not provide information that shows that the country has not shared samples in accordance with the PIP framework in the past two years. [3] International and local media outlets such as BBC, Alayyam and Almarsad Libyan newspapers' websites do not provide information that shows that the country has not shared samples in accordance with the PIP framework in the past two years.

- [1] World Health Organization (WHO). "Libya Country Profile". [https://www.who.int/countries/lby/en/]. Accessed on 22 August 2020.
- [2] World Health Organization (WHO). "Pandemic Influenza Preparedness Recipient Countries". [https://www.who.int/influenza/pip/benefit_sharing/hlipii_2018_19_countrylist.pdf]. Accessed on 10 April 2019.
- [3] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 22 August 2020.



5.6.1c

Is there public evidence that the country has not shared pandemic pathogen samples during an outbreak in the past two years?

Yes = 0, No = 1

Current Year Score: 1

There is no evidence that Libya has not shared pandemic pathogen samples during an outbreak in the past two years. The World Health Organization (WHO)'s Libya country profile does not provide information that shows that the country has not shared pandemic pathogen samples during an outbreak in the past two years. [1] The WHO Pandemic Influenza Preparedness Recipient Countries document does not provide information that shows Libya has not shared pandemic pathogen samples during an outbreak in the past two years. [2] The Ministry of Health website does not provide information that shows that the country has not shared pandemic pathogen samples during an outbreak in the past two years. [3] International and local media outlets such as the BBC, Alayyam and Almarsad Libyan newspapers' websites do not provide information that shows that the country has not shared pandemic pathogen samples during an outbreak in the past two years.

[1] World Health Organization (WHO). "Libya Country Profile". [https://www.who.int/countries/lby/en/]. Accessed on 22 August 2020.

[2] World Health Organization (WHO). "Pandemic Influenza Preparedness Recipient Countries".

[https://www.who.int/influenza/pip/benefit_sharing/hlipii_2018_19_countrylist.pdf]. Accessed on 22 August 2020.

[3] Ministry of Health. [https://www.health.gov.ly/]. Accessed on 22 August 2020.

Category 6: Overall risk environment and vulnerability to biological threats

6.1 POLITICAL AND SECURITY RISK

6.1.1 Government effectiveness

6.1.1a

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

Input number

Current Year Score: 2

2020

Economist Intelligence

6.1.1b

Quality of bureaucracy (Economist Intelligence score; 0-4, where 4=best)

Input number



Current Year Score: 0
2020
Economist Intelligence
6.1.1c Excessive bureaucracy/red tape (Economist Intelligence score; 0-4, where 4=best) Input number Current Year Score: 0
2020
Economist Intelligence
6.1.1d Vested interests/cronyism (Economist Intelligence score; 0-4, where 4=best) Input number Current Year Score: 0
2020
Economist Intelligence
6.1.1e Country score on Corruption Perception Index (0-100, where 100=best) Input number Current Year Score: 17
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: 0

2020

Economist Intelligence

6.1.2 Orderly transfers of power

6.1.2a

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

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

Current Year Score: 0

2021

Economist Intelligence

6.1.3 Risk of social unrest

6.1.3a

What is the risk of disruptive social unrest?

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

Current Year Score: 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: 0



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: 0

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: 0

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: 0

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: 0

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: 93.7

2008-2018

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: 0.83

2018

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

6.2.3 Social inclusion

6.2.3a

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

Input number



Current Year Score: 0.12

2008-2018

World Bank; Economist Impact

6.2.3b

Share of employment in the informal sector

Greater than 50% = 2. Between 25-50% = 1. Less than 25% = 0

Current Year Score: 2

A report by the European training Foundation, "Labor market and employment policy in Libya", published in 2014, states that "Informal employment is estimated at about 40-60% of total employment" in Libya. [1] There is no information available on the share of employment in the informal sector in Libya. The Ministry of Labor website does not provide information on the share of employment in the informal sector in Libya. [2] The international Labor Organization does not provide information on the share of employment in the informal sector in Libya. [2]

[1] European Training Foundation. "Labor market and employment policy in Libya". [https://www.etf.europa.eu/en/publications-and-resources/publications/labour-market-and-employment-policy-libya]. Accessed on 22 August 2020.

- [2] The Ministry of Labor. [https://labour.gov.ly/]. Accessed on 22 August 2020.
- [2] International Labor Organization. [https://www.ilo.org/africa/countries-covered/libya/lang--en/index.htm/]. Accessed on 22 August 2020.

6.2.3c

Coverage of social insurance programs (% of population)

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

Current Year Score: 2

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: -

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: 0

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: 0

2021

Economist Intelligence

6.4 ENVIRONMENTAL RISKS

6.4.1 Urbanization

6.4.1a

Urban population (% of total population)

Input number

Current Year Score: 80.39

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: 0

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: 4



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: 72.72

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: 479

2019

WHO

6.5.1c

Population ages 65 and above (% of total population)

Input number

Current Year Score: 4.46

2019

World Bank

6.5.1d

Prevalence of current tobacco use (% of adults)

Input number

Current Year Score: 21.05

2018



World Bank

6.5.1e

Prevalence of obesity among adults

Input number

Current Year Score: 32.5

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: 98.53

2017

UNICEF; Economist Impact

6.5.2b

Percentage of homes with access to at least basic sanitation facilities

Input number

Current Year Score: 99

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: -

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