

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

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

1.1 ANTIMICROBIAL RESISTANCE (AMR)

1.1.1 AMR surveillance, detection, and reporting

1.1.1a

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

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

Current Year Score: 0

There is insufficient publicly available evidence that Kuwait has a national AMR plan for the surveillance, detection and reporting of priority AMR pathogens. According to the Joint External Evaluation (JEE) assessment of Kuwait, published in May 2017, an AMR detection plan is implemented in all laboratories, however it is not clear whether this is a comprehensive national-level plan. The JEE recommends establishing a mechanism for national reporting of AMR data to ensure appropriate containment in the future [1]. Furthermore, in 2016, Kuwait adopted the Gulf Cooperation Council (GCC) action plan for combatting AMR, which required all countries to develop country-based action plans and key performance indicators [1, 2]. In June 2018, the WHO reported that Kuwait was in the process of completing its AMR action plan, however there is no evidence that it has been published [3].

[1] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [<https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11-eng.pdf?sequence=1&isAllowed=y>]. Accessed February 12 2021.

[2] Balkhy, H., Assiri, A., Al Mousa, H., Alabri, S., Al Katheeri, H., Al Ansari, H., Abdulrazzaq, N., Aidara-Kane, A., Pitter, D. July-August 2016. "The Strategic Plan for Combating Antimicrobial Resistance in Gulf Cooperation Council States". Journal of Infection and Public Health Volume 9

[4]. [<https://www.sciencedirect.com/science/article/pii/S1876034116300144>]. Accessed February 12 2021.

[3] World Health Organization Regional Office for the Eastern Mediterranean. June 2018. "Implementation of the Global NEWSLETTER Action Plan on Antimicrobial Resistance in the Eastern Mediterranean Region".

[http://applications.emro.who.int/docs/emropub_2018_20342.pdf?ua=1]. Accessed February 12 2021.

1.1.1b

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

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

Current Year Score: 1

There is publicly available evidence to suggest that Kuwait's national laboratory system can test for priority AMR pathogens. Kuwait has an Anaerobe Reference Laboratory at the Kuwait University's faculty of sciences which has conducted tests on antimicrobial resistance (AMR), however, it remains unclear which pathogens Kuwait's laboratories have the capacity to test for [1, 2]. According to the Joint External Evaluation (JEE) assessment of Kuwait, published in May 2017, detection and surveillance of AMR pathogens occurs in 7 clinical laboratories across the country, which have the capacity to

conduct a wide range of testing for AMR pathogens including Methicillin-resistant Staphylococcus aureus (MRSA), Streptococcus pneumoniae, Enterococci, Extended Spectrum Beta-Lactamase (ESBL) and carbapenem-resistant Enterobacterales (CRE), as well as surveillance for target organisms (MRSA, Streptococcus pneumoniae, Enterococci, ESBL, CRE) [3].

[1] Jamal, W., Al Hashem G., Rotimi, V. February 2015. "Antimicrobial Resistance Among Anaerobes Isolated from Clinical Specimens in Kuwait Hospitals: Comparative Analysis of 11-Year Data". Clinical Microbiology Volume 31.

[<https://www.sciencedirect.com/science/article/pii/S1075996414001188?via%3Dihub>]. Accessed February 12 2021.

[2] Kuwait University Faculty of Health Sciences. "Medical Laboratory Sciences".

[http://www.hsc.edu.kw/fahs/dept/medical_laboratory/]. Accessed February 12 2021.

[3] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [<https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11-eng.pdf?sequence=1&isAllowed=y>]. Accessed February 12 2021.

1.1.1c

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

Yes = 1 , No = 0

Current Year Score: 0

There is insufficient publicly available evidence that the government of Kuwait conducts detection or surveillance activities for antimicrobial residues or AMR organisms.

The Kuwait Environment Public Authority (KEPA) has an Analytical Laboratories Center which includes a microbiology laboratory, a laboratory of water specification, and the soil laboratory. The laboratories routinely monitor the chemical and microbiological components of water (drinking water, irrigated water, and seawater), analyzing the organic matter present in soil samples [1]. KEPA appears to be the government agency where surveillance activities for AMR organisms would take place, however, no further information is provided on KEPA's website and no specific mention of AMR surveillance is made.

A review of the Ministry of Health, the Public Authority of Agriculture Affairs and Fish Resources, and the Kuwait Foundation for the Advancement of Sciences websites has not yielded any further evidence [2, 3, 4]. An academic study published in the Journal of Clinical Microbiology in 2013 examining AMR in the Gulf States found that sewage water discarded into the Gulf sea in both Oman and Bahrain contained antibiotic-resistance organisms, and that soil and desert sands in the Arabian Peninsula could also harbor antibiotic-resistant bacteria, suggesting that engaging surveillance of soil and waterways for AMR organisms is critical for the GCC states [5].

The Joint External Evaluation (JEE) assessment of Kuwait, published in May 2017, reports that "ongoing surveillance for target organisms (MRSA, S. pneumoniae, Enterococci, ESBL, CRE) for typing, extended susceptibility tests, and epidemiology has been ongoing for more than 5 years", however it remains unclear whether environmental AMR surveillance is included. The JEE also notes that "surveillance for high-risk areas in the hospital (like ICUs) is conducted on a weekly basis" [6].

[1] Kuwait Environment Public Authority. "Analytical Laboratories Center".

[<https://eservices.epa.org.kw/page.php?id=31&language=a>]. Accessed February 12 2021.

[2] Ministry of Health. [<https://www.moh.gov.kw/en>]. Accessed February 12 2021.

[3] Public Authority of Agriculture Affairs and Fish Resources. [<http://www.paaf.gov.kw/>]. Accessed February 12 2021.

[4] Kuwait Foundation for the Advancement of Sciences. [<http://www.kfas.org/>]. Accessed February 12 2021.

[5] Zowawi, H., Balkhy, H., Walsh, T., Paterson, D. July 2013. "B-Lactamase Production in Key Gram-Negative Pathogen Isolates from the Arabian Peninsula". Clinical Microbiology Reviews Volume 26

[3]. [<https://cmr.asm.org/content/cmr/26/3/361.full.pdf>]. Accessed February 12 2021.

[6] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [<https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11-eng.pdf?sequence=1&isAllowed=y>]. Accessed February 12 2021.

1.1.2 Antimicrobial control

1.1.2a

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

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

Current Year Score: 1

The State of Kuwait does have national regulations in place requiring prescriptions for antibiotic use for humans; however, there is evidence of gaps in enforcement.

According to the Joint External Evaluation (JEE) assessment of Kuwait, published in May 2017, prescriptions for antibiotic use for humans are required by the ministerial law of 1985 [1]. In 2007, the national antibiotic policy was printed and distributed via the Infection Control Directorate of the Ministry of Health (MoH) to infection control departments in hospitals, where this was then forwarded to physicians via the heads of departments who were requested to sign a form to ensure that they received their copies.

The national policy contains evidence-based guidelines for issuing prescriptions of antibiotics. In addition, every hospital has its own antibiotic policy, which is based on the national policy and is formulated through an antibiotic committee that includes representatives from clinical departments, clinical microbiology, the pharmacy, and infection control physicians [2]. However, a study published in the Medical Principles and Practice journal in 2012 found a low level of adherence to these guidelines [2].

Furthermore, in 2015 the MoH issued a notice to pharmacies and health care practitioners in both the private and the public sectors stressing that the sale of antibiotics without a prescription is a legal offense for which the pharmacy and its employees would be subject to punishment. According to an article by Al Khaleej, as of 2016, it was found that not all pharmacies had been complying with this decision and a large portion of the population continue to consume antibiotics without a doctor's consultation; however, the link to this article is broken as of March 10, 2021 [3]. The WHO Library of National Action Plans does not provide evidence of an action plan for Kuwait. [4]

[1] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [<https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11-eng.pdf?sequence=1&isAllowed=y>]. Accessed February 12 2021.

[2] Aly, Y., Omar, A., Badaway, A., Al-Mousa, H., Sadek, A. January 2012. "Audit of Physicians' Adherence to the Antibiotic Policy Guidelines in Kuwait". Medical Principles and Practice Volume 21. [<https://www.karger.com/Article/Pdf/334769>]. Accessed February 12 2021.

[3] Al Khaleej newspaper. 7th May 2016. "The Sale of Over-the-Counter Antibiotics is a Legal Offense". [<http://www.alkhaleej.ae/alkhaleej/page/ae3acd50-ebc2-433c-aafa-190df9b9be09>]. Accessed February 12 2021.

[4] WHO. "Library of National Action Plans". [<https://www.who.int/antimicrobial-resistance/national-action->

plans/library/en/]. Accessed February 12 2021.

1.1.2b

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

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

Current Year Score: 0

There is no evidence of legislation or regulation in place requiring a prescription for antibiotic use for animals in Kuwait; additionally, there is no evidence of gaps in enforcement.

The livestock sector under the Public Authority of Agriculture Affairs and Fish Resources is mandated to work with relevant authorities in setting standards for animal production, however, no information is provided regarding regulations on antibiotic use in animals [1]. Within the livestock sector are the departments of animal health and the department of animal production, however, the links to their webpages were not working as of February 2021 [1].

Kuwait's Joint External Evaluation report, completed in May 2017, further confirms that no policy is in place requiring antibiotic prescriptions in animals [2]. Increased regulation of antibiotic use in animals is however likely to emerge soon. According to an academic study published in the Journal of Infection and Public Health in 2016, as a member of the Gulf Cooperation Council Center for Infection Control's (GCC-IC), a strategic plan was launched in 2016 in which Kuwait has committed to "require obligatory prescriptions by licensed veterinarians for all antimicrobials used for disease control in food animals" [3]. The WHO Library of National Action Plans does not provide evidence of an action plan for Kuwait. [4]

[1] Public Authority of Agriculture Affairs and Fish Resources. "Livestock Sector".

[http://website.paaf.gov.kw/pls/portal/url/page/paafweb/HOME/ABOUT/ANIMAL_SECTOR]. Accessed February 12 2021.

[2] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [<https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11-eng.pdf?sequence=1&isAllowed=y>]. Accessed February 12 2021.

[3] Balkhy, H., Assiri, A., Al Mousa, H., Al-Abri, S., Al-Katheeri, H., Alansari, H., Abdulrazzaq, N., Aidara-Kane, A., Pittet, D, July-August 2016. "The Strategic Plan for Combating Antimicrobial Resistance in Gulf Cooperation Council States". Journal of Infection and Public Health Vol 9

[4]. [<http://www.sciencedirect.com/science/article/pii/S1876034116300144>]. Accessed February 12 2021.

[4] WHO. "Library of National Action Plans". [<https://www.who.int/antimicrobial-resistance/national-action-plans/library/en/>]. Accessed February 12 2021.

1.2 ZONOTIC DISEASE

1.2.1 National planning for zoonotic diseases/pathogens

1.2.1a

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

Yes = 1 , No = 0

Current Year Score: 0

Kuwait has national initiatives that amount to a zoonotic disease strategy; however, there is no evidence of a singular document detailing a plan.

In Kuwait, the Ministry of Health (MoH) is responsible for the prevention and control of zoonotic diseases in humans [1]. According to the Joint External Evaluation (JEE) assessment of Kuwait, published in May 2017, in 2010, Kuwait established an inter-sectoral National High Committee for Zoonoses where relevant sectors, including the MoH are represented. The Committee facilitates the coordination and information sharing between human and animal health authorities for zoonotic diseases of public health concern (this includes brucellosis, bovine tuberculosis, Glanders, Notifiable Avian Influenza, Rabies and MERS-CoV). General surveillance carried out for endemic diseases while active surveillance is carried out for emerging and important zoonotic diseases. The JEE adds that "priority zoonotic diseases are controlled within a national programme on the animal side and owners should report as per the veterinary law for notifiable diseases. A compensation plan in place encourages owners to report animal diseases. Indemnities are paid to animal's owners for compensation of slaughter for brucellosis in cattle and bovine tuberculosis" [1].

The JEE also notes that "suitable control measures" are in place for the control of MERS-CoV and Brucellosis cases on both the animal health and public health sides, and that Kuwait has demonstrated its ability to successfully deal with a Glanders outbreak, suggesting effective control is in place for at least these three diseases [1]. Furthermore, the JEE notes that sharing of information among different sectors is not automatic and there are no written standard operating procedures (SOPs) or common reporting systems in place, with the exception of MERS-CoV and Brucella, which have interagency response and investigation teams for suspected outbreaks [1].

The WHO's Health Profile of Kuwait, published in 2015, reports that Kuwait's public health surveillance system remains underfunded; as a result, the effectiveness, national coverage, and performance of the system for timely detection and notification of any emerging health threats remains in doubt [2]. The website of the Public Authority of Agriculture Affairs and Fish Resources does not provide additional information in this regard [3].

[1] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [<https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11-eng.pdf?sequence=1&isAllowed=y>]. Accessed February 12 2021.

[2] World Health Organization. 2015. "Health Profile: Kuwait".

[http://applications.emro.who.int/dsaf/EMROPUB_2016_EN_19271.pdf?ua=1]. Accessed February 12 2021.

[3] Public Authority of Agriculture Affairs and Fish Resources. [<http://website.paaf.gov.kw/>]. Accessed February 12 2021.

1.2.1b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available information that shows that Kuwait has 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.

According to the Joint External Evaluation (JEE) assessment of Kuwait, published in May 2017, "the coordination mechanisms between human and animal health authorities are established under the High committee for zoonoses. Kuwait has no formal policy for One Health. Kuwait has successfully dealt with MERS-CoV and glanders outbreaks. Sharing of information among different sectors, however, is not automatic and is based on good will and there are no written standard operating procedures (SOPs) or national plan". The JEE does not provide evidence of national legislation, plans or an equivalent strategy

document which includes measures for risk identification and reduction for zoonotic disease spillover events from animals to humans.

Further, the websites of the Environment Public Authority and the Public Authority of Agriculture Affairs and Fish Resources do not provide information about national legislation, plans, or an equivalent strategy document which include measures for risk identification and reduction for zoonotic disease spillover events from animals to humans [2, 3]. According to the website of the OIE PVS evaluation reports, Kuwait does not have an OIE PVS evaluation report that is publicly available and, therefore, does not provide information about national plans, guidelines, or laws that tackle measures for risk identification and reduction for zoonotic disease spillover events [4]. The website of the Ministry of Health does not provide additional information in this regard [5].

[1] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [<https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11-eng.pdf?sequence=1&isAllowed=y>]. Accessed February 12 2021.

[2] Environment Public Authority. [<https://epa.org.kw/en-us/About>]. Accessed February 12 2021.

[3] Public Authority of Agriculture Affairs and Fish Resources. "Livestock Sector". [http://website.paaf.gov.kw/pls/portal/url/page/paafweb/HOME/ABOUT/ANIMAL_SECTOR]. Accessed February 12 2021.

[4] World Organization for Animal Health (OIE). "OIE PVS Evaluation Reports". [<http://www.oie.int/solidarity/pvs-evaluations/pvs-evaluation-reports/>]. Accessed February 12 2021.

[5] Jordanian Ministry of Health. [<https://www.moh.gov.kw/>]. Accessed February 12 2021.

1.2.1c

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

Yes = 1 , No = 0

Current Year Score: 0

Kuwait has national initiatives that amount to a zoonotic disease strategy; however, there is no evidence of a singular document detailing a plan that includes surveillance and control.

According to the Joint External Evaluation (JEE) assessment of Kuwait, published in May 2017, "the veterinary services have prioritized 5 zoonotic diseases including brucellosis, bovine tuberculosis, Glanders, Notifiable Avian Influenza and Rabies in addition to MERS-CoV. Collaboration between the animal health and public health sectors is functioning through regular but informal communication and information sharing for surveillance and response to some diseases such as MERS-CoV and Brucellosis. National surveillance plans on animals for these priority diseases are designed as active surveillance except for rabies where it is passive surveillance. Further efforts are needed to formalize surveillance systems for all priority zoonotic diseases from both sides with regular sharing of surveillance reports"[1].

Additionally, in terms of control programs, the JEE adds that "Veterinary Services have active surveillance and control programmes for brucellosis, bovine tuberculosis and Salmonellosis in poultry", and that "Priority zoonotic diseases are controlled within a national program on the animal side"[1].

Further, the websites of the Environment Public Authority and the Public Authority of Agriculture Affairs and Fish Resources do not provide evidence of guidelines that account for the surveillance and control of multiple zoonotic pathogens of public health concern [2, 3]. According to the website of the OIE PVS evaluation reports, Kuwait does not have an OIE PVS evaluation report that is publicly available and, therefore, does not provide evidence of guidelines that account for the

surveillance and control of multiple zoonotic pathogens of public health concern [4]. There is no further evidence on the website of the Ministry of Health [5].

[1] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [<https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11-eng.pdf?sequence=1&isAllowed=y>]. Accessed February 12 2021.

[2] Environment Public Authority. [<https://epa.org.kw/en-us/About>]. Accessed February 12 2021.

[3] Public Authority of Agriculture Affairs and Fish Resources. "Livestock Sector".

[http://website.paaf.gov.kw/pls/portal/url/page/paafweb/HOME/ABOUT/ANIMAL_SECTOR]. Accessed February 12 2021.

[4] World Organization for Animal Health (OIE). "OIE PVS Evaluation Reports". [<http://www.oie.int/solidarity/pvs-evaluations/pvs-evaluation-reports/>]. Accessed February 12 2021.

[5] Jordanian Ministry of Health. [<https://www.moh.gov.kw/>]. Accessed February 12 2021.

1.2.1d

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that Kuwait has a department dedicated to zoonotic diseases which functions across ministries.

According to the Joint External Evaluation (JEE) assessment of Kuwait, published in May 2017, in 2010, Kuwait does have an inter-sectoral National High Committee for Zoonoses with representatives from relevant sectors (including the Ministry of Health (MoH), the Public Authority of Agriculture Affairs and Fish Resources (PAAF), the Kuwait Municipality, the Public Authority of the Environment, the Public Authority for Food Safety and Nutrition and the Ministry of Industry and Commerce). Responses and preventative measures to be taken against zoonotic diseases are coordinated through the Committee [1]. However, the National High Committee for Zoonoses functions more as a committee as opposed to an agency that has joint staffing, funding, reporting or other substantial operations by more than one ministry. Furthermore, the Department of Animal Health is also mandated to maintain human health by preventing the spread of common diseases transmitted from animals to humans through cooperation with the MoH through the Joint Diseases Committee; however, there is no evidence of joint staffing, funding, reporting or other substantial operations with the Ministry of Health or another ministry [2].

While Kuwait does not have a formal and comprehensive 'One Health' policy in place, Kuwait has demonstrated its capacity to successfully deal with zoonotic disease outbreaks in the past, including MERS-CoV and glanders outbreaks. However, the JEE notes that coordination continues to happen on an ad hoc basis with no written standard operating procedures, national plan or formal data sharing mechanisms between the animal and human health sectors in place, and recommends strengthening the role of the National High Committee for Zoonoses in fostering a cohesive approach to surveillance, preparedness, strategic planning, joint outbreak investigations and timely information sharing [1]. Therefore, it seems that the National High Committee for Zoonoses is the closest public body available that can potentially act as a department dedicated to zoonotic diseases which functions across ministries.

Beyond the two aforementioned committees, there is no publicly available evidence of a dedicated cross-sectoral unit dedicated to zoonotic diseases. A review of the Ministry of Health's website has not yielded any further evidence [3].

[1] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [<https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11-eng.pdf?sequence=1&isAllowed=y>]. Accessed February 12 2021.

[2] Public Authority of Agriculture Affairs and Fish Resources. "Livestock Development and Animal Health Sector". [http://website.paaf.gov.kw/public_html/animal.html]. Accessed February 12 2021.

[3] Ministry of Health. [<https://www.moh.gov.kw/>]. Accessed February 12 2021.

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 insufficient evidence of a national mechanism for owners of livestock to conduct and report on disease surveillance to a central government agency.

According to the Joint External Evaluation (JEE) assessment of Kuwait, published in May 2017, priority zoonotic diseases are controlled through a national program whereby animal owners "should report as per the veterinary law for notifiable diseases", however it does not specify through what mechanism such reporting takes place [1].

A compensation plan has also been introduced to encourage livestock owners to report animal diseases. Through this program, indemnities are paid to animal owners in order to compensate for the slaughter of cattle diagnosed with brucellosis and bovine tuberculosis. Additionally, there is also an annual census of animal resources as well as an identification program which has been implemented. No further information was available on the Public Authority of Agriculture Affairs and Fish Resources (PAAF) website nor the website of the Department of Animal Health under PAAF, which is in charge of the supervision of animal health [2, 3].

Upon conducting an online search using the terms "kuwait livestock compensation report diseases" or "kuwait livestock owners report disease surveillance", there is no publicly available information that outlines in more detail how owners of livestock report on disease surveillance to the public authorities.

[1] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [<https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11-eng.pdf?sequence=1&isAllowed=y>]. Accessed February 12 2021.

[2] Public Authority of Agriculture Affairs and Fish Resources. [<http://www.paaf.gov.kw/>]. Accessed February 12 2021.

[3] Public Authority of Agriculture Affairs and Fish Resources. "Livestock Sector". [http://website.paaf.gov.kw/pls/portal/url/page/paafweb/HOME/ABOUT/ANIMAL_SECTOR]. Accessed February 12 2021.

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 Kuwait has laws or guidelines that safeguard the confidentiality of information gathered through surveillance activities for animals. An online review of current privacy and data confidentiality laws has not provided evidence of specific guidelines regarding health data for animals or animal owners. Neither has a review of the Ministry of Health and the Public Authority of Agriculture Affairs and Fish Resources (PAAF) websites, or Kuwait's Joint External Evaluation assessment, published in May 2017 [1, 2, 3]. While Kuwait does not have an overarching data protection law, confidentiality provisions are available in certain laws. For example, article 39 of Kuwait's constitution states that "the freedom of postal, telegraphic and telephonic communications is safeguarded and their secrecy is guaranteed" [4]. This likely suggests that voluntary reporting of priority diseases in animals, which Kuwait's Joint External Evaluation (JEE), published in May 2017, affirms takes place, is safeguarded [6]. This is likely the case as the JEE further adds that a compensation plan has also been introduced to encourage livestock owners to report animal diseases, through which indemnities are paid to animal's owners in order to compensate the slaughter of cattle diagnosed with brucellosis and bovine tuberculosis [3]. Still, this is insufficient evidence to prove that Kuwait has laws or guidelines that safeguard the confidentiality of information gathered through surveillance activities for animals. Furthermore, according to a report published by the Charles Russel Speechlys law firm on the data protection landscape in the GCC, Kuwait's Evidence Law mentions that professionals who acquire information in the course of carrying out their professions may not reveal such information, even after the end of their services or their representative capacity [5]. Moreover, according to Global System for Mobile Communications Association's "Data Privacy Frameworks in MENA" 2019 report, "there is currently no specific data protection law in Kuwait. There are limited provisions in cyber security and electronic transactions legislation however the jurisdiction lags behind other GCC nations"[6].

[1] Ministry of Health. [<https://www.moh.gov.kw/>]. Accessed February 12 2021.

[2] Public Authority of Agriculture Affairs and Fish Resources. [<http://www.paaf.gov.kw/>]. Accessed February 12 2021.

[3] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [<https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11-eng.pdf?sequence=1&isAllowed=y>]. Accessed February 12 2021.

[4] Government of Kuwait. "Kuwaiti Constitution 1962". [<https://www.wipo.int/edocs/lexdocs/laws/en/kw/kw004en.pdf>]. Accessed February 12 2021.

[5] Charles Russel Speechlys. 2015. "The Data Protection Landscape in the GCC".

[<https://www.lexology.com/library/detail.aspx?g=8e4bc5b5-d911-4b80-b63d-04ad4d0e4e4a>]. Accessed February 12 2021.

[6] GSMA. 2019. "Data Privacy Frameworks in MENA". Accessed February 12 2021.

1.2.2c

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence to suggest that Kuwait conducts surveillance of zoonotic disease in wildlife.

According to the Joint External Evaluation (JEE) assessment of Kuwait, published in May 2017, wildlife and insect control fall under the authority of the Environment Public Authority (EPA) [1]. The Wildlife Monitoring section of the EPA monitors wildlife in its various forms in the natural reserves of the EPA and in other places throughout the State of Kuwait, to identify means and methods of scientific and technical resources required to implement the required protection and sustainable use of these wildlife organisms [2]. No specific mention is made regarding the surveillance of zoonotic disease in wildlife, and the link to the Wildlife Monitoring Section was not working as of March 2019 [2, 3].

The veterinary quarantine department under the Public Authority of Agriculture Affairs and Fish Resources (PAAF) is entrusted with vaccinating poultry and pigeons against infectious diseases, however, no further detail is provided with regards to wildlife surveillance [4]. A review of the Ministry of Health's website has also not yielded any further evidence [5].

[1] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [<https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11-eng.pdf?sequence=1&isAllowed=y>]. Accessed February 12 2021.

[2] Environment Public Authority. "Department of Biodiversity Conservation".

[<https://eservices.epa.org.kw/page.php?id=64&language=e>]. Accessed February 12 2021.

[3] Environment Public Authority. "Department of Wildlife Monitoring". [<https://eservices.epa.org.kw/notfound.html>].

Accessed February 12 2021.

[4] Public Authority of Agriculture Affairs and Fish Resources. "Livestock Development and Animal Health Sector".

[http://website.paaf.gov.kw/public_html/animal.html]. Accessed February 12 2021.

[5] Ministry of Health. [<https://www.moh.gov.kw/>]. Accessed February 12 2021.

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: 8.77

2018

OIE WAHIS database

1.2.4b

Number of veterinary para-professionals per 100,000 people

Input number

Current Year Score: 5.82

2018

OIE WAHIS database

1.2.5 Private sector and zoonotic

1.2.5a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that Kuwait has a publicly available formal plan on zoonotic diseases, and the existing regulations and legislation do not include mechanisms for working with the private sector in controlling or responding to zoonosis.

The Animal Health Department under the Livestock Directorate of the Public Authority of Agriculture Affairs and Fish Resources (PAAF) is in charge of the supervision of animal health. The department includes an Epidemiology Unit mandated to address animal-related emergencies, develop contingency plans and conduct disease surveillance. However, no mention of private sector involvement is made [1].

According to the Joint External Evaluation (JEE) assessment of Kuwait, published in May 2017, most animal health services are delivered by the private sector through 24 private hospitals, 3 private clinics, and private veterinarians for industrial farms (poultry and dairy cattle), all of which operate under control of PAAF within a licensing procedure [2]. This suggests that close coordination with the private sector is highly likely when controlling or responding to zoonoses, however no further information was provided on PAAF's website [3].

Furthermore, while PAAF is the agency with overarching responsibility for the prevention and control of zoonotic diseases in animals, the Ministry of Health (MoH) is responsible for the prevention and control of zoonotic diseases in humans [2]. However, no information was found on either PAAF or the MoH websites indicating mechanisms were in place for working with the private sector in controlling or responding to zoonoses [3, 4].

[1] Public Authority of Agriculture Affairs and Fish Resources. "Livestock Sector".

[http://website.paaf.gov.kw/pls/portal/url/page/paafweb/HOME/ABOUT/ANIMAL_SECTOR]. Accessed February 15 2021.

[2] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [<https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11-eng.pdf?sequence=1&isAllowed=y>]. Accessed February 15 2021.

[3] Public Authority of Agriculture Affairs and Fish Resources.

[http://website.paaf.gov.kw/portal/page?_pageid=136,2112003&_dad=portal&_schema=PORTAL]. Accessed February 15 2021.

[4] Ministry of Health. [<https://www.moh.gov.kw/en>]. Accessed February 15 2021.

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: 1

There is evidence that Kuwait maintains a record of the facilities in which especially dangerous pathogens and toxins are stored, and an inventory management system for those facilities.

According to the Joint External Evaluation (JEE) assessment of Kuwait, published in May 2017, "Polio, M. tuberculosis and MERS-CoV have been identified nationally as dangerous pathogens for which knowledge of the holding sites exists" [1]. However, the JEE does recommend that Kuwait should "Expand the list of agents/pathogens of concern based on internationally available risk agent/pathogen list, and establish an inventory of the expanded list..." [1].

A review of online sources, including the websites of the Ministry of Health's Department of Medical Laboratory Services, the Civil Defence, the Public Authority of Agriculture Affairs and Fish Resources, the Kuwait International Laboratory (LABCO), and Farwaniya Hospital Medical Laboratory has not yielded any further evidence or provided any details on inventory management at these facilities [2, 3, 4, 5, 6].

Furthermore, although Kuwait is a party to the Biological Weapons Convention, it has not submitted Confidence Building Measures since 1996. Access to its most recent CBM report is restricted and is not publicly available [7].

[1] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [<https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11-eng.pdf?sequence=1&isAllowed=y>]. Accessed February 15 2021.

[2] Ministry of Health. "Department of Medical Laboratory Services". [<https://www.moh.gov.kw/Departments/5/5-1/5-1-2>]. Accessed February 15 2021.

[3] General Department of Civil Defence. [<https://www.moi.gov.kw/civildefense/en/index.aspx>]. Accessed February 15 2021.

[4] Public Authority of Agriculture Affairs and Fish Resources.

[http://website.paaf.gov.kw/portal/page?_pageid=136,2112003&_dad=portal&_schema=PORTAL]. Accessed February 15 2021.

[5] Kuwait International Laboratory (LABCO). [<http://www.labco-kw.com/home.html>]. Accessed February 15 2021.

[6] Farwaniya Hospital. "Medical Laboratory". [<http://www.farwaniyahospital.org/medical-laboratory>]. Accessed February 15 2021.

[7] Biological Weapons Convention. "Kuwait". [<https://bwc-ecbm.unog.ch/state/kuwait>]. Accessed February 15 2021.

1.3.1b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available information that shows that Kuwait has national biosecurity legislation or regulations in place.

Kuwait's Joint External Evaluation (JEE) assessment, completed in May 2017, does not provide documented information on a regulatory framework for biosecurity. Dangerous pathogens have been identified (polio, M. tuberculosis, and MERS-CoV) and the whereabouts of their storage locations are known; additionally, according to the information given verbally to the JEE team, training has been implemented on the correct handling of these microbes in some, but not all, the relevant laboratories with the listed dangerous pathogens [1].

In a study conducted in 2009 by the Central Laboratory for Evaluation of Veterinary Biologics in Egypt examining the capabilities of veterinary laboratories in the Middle East, findings reveal that Kuwait's veterinary laboratories have the appropriate laboratory facilities in place and that these laboratories monitor, control and record the environmental condition as required by specification methods and procedures. The report also noted that these laboratories "separate neighboring areas to prevent cross-contamination and apply biosecurity measures" [2].

The Government of Kuwait has a licensing process for all medical laboratories, part of the process includes obtaining the approval of the Medical License Committee, this may likely include certain biosecurity protocols. However, this information is not publicly available [3]. Furthermore, in April 2018, the Department of Public Health held a workshop for biological laboratories on risk management and biosecurity training based on ISO standards [4]. The JEE does however recommend strengthening the implementation and monitoring of biosecurity-related processes in laboratories and introducing a comprehensive and coordinated national program with regulations and standard operating procedures on biosecurity [1].

No further information was found on the websites of the Ministry of Health's Department of Medical Laboratory Services, the Civil Defence, or the Public Authority of Agriculture Affairs and Fish Resources [5, 6, 7]. Furthermore, although Kuwait is a party to the Biological Weapons Convention, it has not submitted Confidence Building Measures since 1996. Access to its most recent CBM report is restricted and is not publicly available [8]. The VERTIC database does not offer additional information in this regard [9].

[1] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [<https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11-eng.pdf?sequence=1&isAllowed=y>]. Accessed February 15 2021.

[2] El-Ebiary, E. 2009. "Capabilities of Veterinary Laboratories in the Middle East: Needs to Improve Animal Disease Diagnostic". Conference of OIE. [<http://wahis2-devt.oie.int/doc/ged/D9762.PDF>]. Accessed February 15 2021.

[3] Kuwait Government Online. "Issuing Licenses to Open Medical Laboratories". [<https://www.e.gov.kw/sites/kgenglish/Pages/Services/MOH/OpenMedicalLaboratoriesLicense.aspx>]. Accessed February 15 2021.

[4] Al Anba news. 4th April 2018. "Al Khashti: Medical Laboratory Technicians Have a Vital Role in the Health System". [<https://www.alanba.com.kw/ar/kuwait-news/health/823509/04-04-2018-%D8%A7%D9%84%D8%AE%D8%B4%D8%AA%D9%8A-%D9%85%D9%87%D9%86%D8%A9-%D9%81%D9%86%D9%8A%D9%8A-%D8%A7%D9%84%D9%85%D8%AE%D8%AA%D8%A8%D8%B1%D8%A7%D8%AA-%D8%A7%D9%84%D8%B7%D8%A8%D9%8A%D8%A9-%D9%84%D9%87%D8%A7-%D8%AF%D9%88%D8%B1-%D8%AD%D9%8A%D9%88%D9%8A-%D8%A7%D9%84%D9%85%D9%86%D8%B8%D9%88%D9%85%D8%A9-%D8%A7%D9%84%D8%B5%D8%AD%D9%8A%D8%A9>]. Accessed February 15 2021.

[5] Ministry of Health. "Department of Medical Laboratory Services". [<https://www.moh.gov.kw/Departments/5/5-1/5-1-2>]. Accessed February 15 2021.

[6] General Department of Civil Defence. [<https://www.moi.gov.kw/civildefense/en/index.aspx>]. Accessed February 15 2021.

[7] Public Authority of Agriculture Affairs and Fish Resources.

[http://website.paaf.gov.kw/portal/page?_pageid=136,2112003&_dad=portal&_schema=PORTAL]. Accessed February 15 2021.

[8] Biological Weapons Convention. "Kuwait". [<https://bwc-ecbm.unog.ch/state/kuwait>]. Accessed February 15 2021.

[9] VERTIC Database. "Kuwait Profile". [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/k/>]. Accessed February 15 2021.

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 public evidence that Kuwait has an established agency or committee responsible for the enforcement of biosecurity legislation and regulations; there is also no evidence of the existence of biosecurity legislation in the country.

Kuwait's Joint External Evaluation (JEE) assessment, completed in May 2017, does not provide documented information on a regulatory framework for biosecurity. Additionally, according to the information given verbally to the JEE team, training has been implemented on the correct handling of these dangerous pathogens in some, but not all, laboratories handling dangerous microbes [1]. The Government of Kuwait has a licensing process for all medical laboratories; part of the process includes obtaining the approval of the Medical License Committee, which is the government agency that would likely be responsible for the enforcement of biosecurity regulations. The licensing process may include certain biosecurity protocols, however, this information is not publicly available [2]. The JEE recommends strengthening the implementation and monitoring of biosecurity-related processes in laboratories and introducing a comprehensive and coordinated national program with regulations and standard operating procedures on biosecurity [1].

No further information was found on the websites of the Ministry of Health's Department of Medical Laboratory Services, the Civil Defence, or the Public Authority of Agriculture Affairs and Fish Resources [3, 4, 5]. Furthermore, although Kuwait is a party to the Biological Weapons Convention, it has not submitted Confidence Building Measures since 1996. Access to its most recent CBM report is restricted and is not publicly available [6]. The VERTIC database does not offer additional information in this regard [7].

[1] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [<https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11-eng.pdf?sequence=1&isAllowed=y>]. Accessed February 15 2021.

[2] Kuwait Government Online. "Issuing Licenses to Open Medical Laboratories".

[<https://www.e.gov.kw/sites/kgenglish/Pages/Services/MOH/OpenMedicalLaboratoriesLisense.aspx>]. Accessed February 15 2021.

[3] Ministry of Health. "Department of Medical Laboratory Services". [<https://www.moh.gov.kw/Departments/5/5-1/5-1-2>]. Accessed February 15 2021.

[4] General Department of Civil Defence. [<https://www.moi.gov.kw/civildefense/en/index.aspx>]. Accessed February 15 2021.

[5] Public Authority of Agriculture Affairs and Fish Resources.

[http://website.paaf.gov.kw/portal/page?_pageid=136,2112003&_dad=portal&_schema=PORTAL]. Accessed February 15 2021.

[6] Biological Weapons Convention. "Kuwait". [<https://bwc-ecbm.unog.ch/state/kuwait>]. Accessed February 15 2021.

[7] VERTIC Database. "Kuwait Profile". [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc->

legislation-database/k/]. Accessed February 15 2021.

1.3.1d

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

Yes = 1 , No = 0

Current Year Score: 0

There is no public evidence that indicates that Kuwait has taken action to consolidate its inventories of dangerous pathogens and toxins into a minimum number of facilities.

According to the Joint External Evaluation (JEE) assessment of Kuwait, published in May 2017, Polio, M. tuberculosis, and MERS-CoV have been identified by the Kuwaiti government as dangerous pathogens, and the government is aware of where these specimens are stored, however, a review of online sources does not suggest that this information is publicly available [1].

A review of online sources, including the websites of the Ministry of Health's Department of Medical Laboratory Services, the Civil Defence, the Public Authority of Agriculture Affairs and Fish Resources, the Kuwait International Laboratory (LABCO), and the Farwaniya Hospital Medical Laboratory has not yielded any further evidence on where dangerous pathogens and toxins are stored, nor any details on whether actions have been taken to consolidate the inventory of dangerous pathogens into a minimum number of facilities [2, 3, 4, 5, 6].

Furthermore, according to the information given verbally to the JEE team, training has been implemented on the correct handling of dangerous microbes "in some, but not all, the relevant laboratories with the listed dangerous pathogens", suggesting that several laboratories may have access to these pathogens and efforts to consolidate inventories have not taken place [1]. Although Kuwait is a party to the Biological Weapons Convention, it has not submitted Confidence Building Measures since 1996. Access to its most recent CBM report is restricted and is not publicly available [7]. The VERTIC database does not offer additional information in this regard [8].

[1] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [<https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11-eng.pdf?sequence=1&isAllowed=y>]. Accessed February 15 2021.

[2] Ministry of Health. "Department of Medical Laboratory Services". [<https://www.moh.gov.kw/Departments/5/5-1/5-1-2>]. Accessed February 15 2021.

[3] General Department of Civil Defence. [<https://www.moi.gov.kw/civildefense/en/index.aspx>]. Accessed February 15 2021.

[4] Public Authority of Agriculture Affairs and Fish Resources.

[http://website.paaf.gov.kw/portal/page?_pageid=136,2112003&_dad=portal&_schema=PORTAL]. Accessed February 15 2021.

[5] Kuwait International Laboratory (LABCO). [<http://www.labco-kw.com/home.html>]. Accessed February 15 2021.

[6] Farwaniya Hospital. "Medical Laboratory". [<http://www.farwaniyahospital.org/medical-laboratory>]. Accessed February 15 2021.

[7] Biological Weapons Convention. "Kuwait". [<https://bwc-ecbm.unog.ch/state/kuwait>]. Accessed February 15 2021.

[8] VERTIC Database. "Kuwait Profile". [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/k/>]. Accessed February 15 2021.

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 no public evidence that Kuwait has in-country capacity to conduct Polymerase Chain Reaction (PCR) diagnostic testing for anthrax or Ebola.

No mention of such capacity was made on the Ministry of Health (MoH), the Environment Public Authority, or the Civil Defence websites [1, 2, 3]. The Infection Control Directorate of the MoH released two documents with guidelines on infection prevention and control for suspected or confirmed cases of Ebola in patients, however, neither of these confirms that PCR testing for Ebola takes place in Kuwait [4, 5].

The 2018 guidelines on 'Infection Prevention and Control Recommendations for Hospitalized Patients with Known or Suspected Ebola Virus Disease' state that the "Ebola virus is classified as a Category A infectious substance. Specimens from PUIs [persons under investigation] or patients confirmed to have Ebola virus infection should be packaged and shipped as Category A infectious substances", which likely suggests that virus samples are shipped outside of Kuwait for testing [5]. The Infection Control Directorate also released guidelines on infection control protocol for the management of anthrax cases in health care settings in 2002, however, this too does not include any indication that PCR-based testing for anthrax takes place in Kuwait [6].

The websites of the Kuwait International Laboratory (LABCO), the Farwaniya Hospital Medical Laboratory, as well as the Joint External Evaluation assessment of Kuwait, published in May 2017, has not yielded any further information to suggest that Kuwait has in-country capacity to conduct Polymerase Chain Reaction (PCR) diagnostic testing for anthrax or Ebola. The JEE only mentions that "national policy, tools, and resources to support diagnostics other than culturing dangerous pathogens, such as PCR, are in place" [7, 8, 9]. The website of the Ministry of Defence seems to be discontinued and provides an archived webpage from year 2013; no information is provided that pertains to in-country capacity to conduct Polymerase Chain Reaction (PCR) diagnostic testing for anthrax or Ebola [10].

[1] Ministry of Health. [<https://www.moh.gov.kw/en>]. Accessed February 15 2021.

[2] Environment Public Authority. "Center for Analytical Laboratories".

[<https://eservices.epa.org.kw/page.php?id=31&language=a>]. Accessed February 15 2021.

[3] General Department of Civil Defence. [<https://www.moi.gov.kw/civildefense/en/index.aspx>]. Accessed February 15 2021.

[4] Ministry of Health - Infection Control Directorate. June 2018. "Updated Infection Prevention and Control Recommendations for Hospitalized Patients with Known or Suspected Ebola Virus Disease (EVD)".

[<http://www.icdkwt.com/pdf/policiesandguidelines/InfectionPreventionandControl/ebolavirus2018.pdf>]. Accessed February 15 2021.

[5] Ministry of Health - Infection Control Directorate. 2014. "Infection Prevention and Control Recommendations for Hospitalized Patients with Known or Suspected Ebola Hemorrhagic Fever".

[<http://www.icdkwt.com/pdf/policiesandguidelines/InfectionPreventionandControl/Infection%20Prevention%20and%20Control%20Recommendations%20for%20Hospitalized%20Patients%20with%20Known%20or%20Suspected%20Ebola%20Hemorrhagic%20Fever.pdf>]. Accessed February 15 2021.

[6] Ministry of Health - Infection Control Directorate. 2002. "Infection Control Protocol for the Management of Anthrax Cases in Health Care settings". [<http://www.icdkwt.com/pdf/policiesandguidelines/InfectionPreventionandControl/anthrax.pdf>]. Accessed February 15 2021.

[7] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [<https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11-eng.pdf?sequence=1&isAllowed=y>]. Accessed February 15 2021.

[8] Kuwait International Laboratory (LABCO). [<http://www.labco-kw.com/home.html>]. Accessed February 15 2021.

[9] Farwaniya Hospital. "Medical Laboratory". [<http://www.farwaniyahospital.org/medical-laboratory>]. Accessed February 15 2021.

[10] Ministry of Defence. [www.mod.gov.kw]. Accessed February 15 2021.

1.3.2 Biosecurity training and practices

1.3.2a

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

Yes = 1 , No = 0

Current Year Score: 0

There is insufficient publicly available evidence to determine if Kuwait 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 and toxins.

According to the Joint External Evaluation (JEE) assessment of Kuwait, published in May 2017, Kuwait does have a standardized approach to biosafety training in place which includes training of laboratory staff and trainers. However, the JEE notes that training for staff at the facilities housing especially dangerous pathogens and toxins has not yet been fully completed [1].

Furthermore, according to the information given verbally to the JEE team, pieces of training have been implemented on the correct handling of identified dangerous microbes in some, but not all, the relevant laboratories which house the listed dangerous pathogens (polio, M. tuberculosis, and MERS-CoV) [1]. The JEE also recommends developing an annual action plan for biosecurity training and strengthening the mechanisms of monitoring the implementation of biosecurity-related processes in laboratories, further suggesting such pieces of training are not yet in place. However, the JEE does note that all laboratory staff in the public and private sectors are trained on the transport of infectious substances according to international standards [1].

Training for Laboratory personnel falls under the control of the training department located in the Ministry of Health's (MoH) Department of Laboratory Services. According to the Department's website, the training department undertakes several trainings, including organizing intensive training courses for laboratory staff in coordination with the MoH, organizing field trainings and developing specialized courses, however no specific mention is made with regards to biosecurity training [2].

According to a news article posted by Al Wasat in 2017, a training workshop was held for public health laboratories which included training on biosecurity concepts, suggesting that such pieces of training may become standardized in the near future [3].

Although Kuwait is a party to the Biological Weapons Convention, it has not submitted Confidence Building Measures since 1996. Access to its most recent CBM report is restricted and is not publicly available [4]. A review of online sources, including the Civil Defence website, the Public Authority of Agriculture Affairs and Fish Resources website, the Kuwait International

Laboratory (LABCO), and the Farwaniya Hospital Medical Laboratory has not yielded any further evidence [5, 6, 7, 8]. The website of the Ministry of Defence seems to be discontinued and provides an archived webpage from year 2013; no information is provided to suggest that Kuwait requires biosecurity training using a standardized required approach [9]. The VERTIC database does not offer additional information in this regard [10].

- [1] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [<https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11-eng.pdf?sequence=1&isAllowed=y>]. Accessed February 16 2021.
- [2] Ministry of Health. "Department of Medical Laboratory Services". [<https://www.moh.gov.kw/Departments/5/5-1/5-1-2>]. Accessed February 16 2021.
- [3] Al Wasat News. 12th May 2017. "Public Health Laboratories Organize "Biological Risk Management in Health Facilities" Workshop". [<http://www.alwasatnews.com/news/998085.html>]. Accessed February 16 2021.
- [4] Biological Weapons Convention. "Kuwait". [<https://bwc-ecbm.unog.ch/state/kuwait>]. Accessed February 16 2021.
- [5] General Department of Civil Defence. [<https://www.moi.gov.kw/civildefense/en/index.aspx>]. Accessed February 16 2021.
- [6] Public Authority of Agriculture Affairs and Fish Resources. [http://website.paaf.gov.kw/portal/page?_pageid=136,2112003&_dad=portal&_schema=PORTAL]. Accessed February 16 2021.
- [7] Kuwait International Laboratory (LABCO). [<http://www.labco-kw.com/home.html>]. Accessed February 15 2021.
- [8] Farwaniya Hospital. "Medical Laboratory". [<http://www.farwaniyahospital.org/medical-laboratory>]. Accessed February 15 2021.
- [9] Ministry of Defence. [www.mod.gov.kw]. Accessed February 15 2021.
- [10] VERTIC Database. "Kuwait Profile". [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/k/>]. Accessed February 15 2021.

1.3.3 Personnel vetting: regulating access to sensitive locations

1.3.3a

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

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

Current Year Score: 0

There is insufficient publicly available 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 background checks, drug testing, or mental fitness tests.

The Government of Kuwait has a licensing process for all medical laboratories. Part of the process includes obtaining the approval of the Medical License Committee. Some of the conditions that must be met include: verification of the medical certifications of doctors and laboratory technicians working as full-time employees in the laboratory (e.g. bachelor's degree and a minimum of 10 years of experience for the applicant technician); all laboratory employees must be qualified in the field of medical laboratory sciences and provide authenticated science certificates, and 'medical fitness certificates' are required. However, it does not specify whether this applies to all employees or senior doctors and laboratory technicians managing the laboratory [1].

Furthermore, although Kuwait is a party to the Biological Weapons Convention, it has not submitted Confidence Building Measures since 1996. Access to its most recent CBM report is restricted and is not publicly available [2]. A review of online sources, including the Civil Defence website, the Public Authority of Agriculture Affairs and Fish Resources website, the Kuwait International Laboratory (LABCO) website, and the Farwaniya Hospital Medical Laboratory website has not yielded any further evidence [3, 4, 5, 6]. The website of the Ministry of Defence seems to be discontinued and provides an archived webpage from year 2013; no information is provided to suggest 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 drug testing, background checks, and psychological or mental fitness checks [7]. The VERTIC database does not offer additional information in this regard [8]. Neither does the Joint External Evaluation (JEE) assessment of Kuwait, published in May 2017 [9].

[1] Kuwait Government Online. "Issuing Licenses to Open Medical Laboratories".

[<https://www.e.gov.kw/sites/kgenglish/Pages/Services/MOH/OpenMedicalLaboratoriesLicense.aspx>]. Accessed February 16 2021.

[2] Biological Weapons Convention. "Kuwait". [<https://bwc-ecbm.unog.ch/state/kuwait>]. Accessed February 16 2021.

[3] General Department of Civil Defence. [<https://www.moi.gov.kw/civildefense/en/index.aspx>]. Accessed February 16 2021.

[4] Public Authority of Agriculture Affairs and Fish Resources.

[http://website.paaf.gov.kw/portal/page?_pageid=136,2112003&_dad=portal&_schema=PORTAL]. Accessed February 16 2021.

[5] Kuwait International Laboratory (LABCO). [<http://www.labco-kw.com/home.html>]. Accessed February 16 2021.

[6] Farwaniya Hospital. "Medical Laboratory". [<http://www.farwaniyahospital.org/medical-laboratory>]. Accessed February 16 2021.

[7] Ministry of Defence. [www.mod.gov.kw]. Accessed February 16 2021.

[8] VERTIC Database. "Kuwait Profile". [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/k/>]. Accessed February 16 2021.

[9] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [<https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11-eng.pdf?sequence=1&isAllowed=y>]. Accessed February 16 2021.

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 insufficient evidence that shows that Kuwait has publicly available information on national regulations on the safe and secure transport of infectious substances (Categories A and B).

According to the Joint External Evaluation (JEE) assessment, published in May 2017, Kuwait's specimen transportation logistics are well developed for both national and international transportation [1, 2]. The JEE states that "Specimen transportation logistics mechanisms are well-developed", and that "International transport regulations are being followed and people trained". However, no explicit mention of 'Category A' and 'Category B' substances is made.

In 2013, the National Technical Committee of the Ministry of Health issued laboratory diagnosis guidelines and

transportation protocols for Category B substances, including MERS-CoV disease [3]. In 2018, the Ministry of Health published guidelines on infection prevention and control for suspected or confirmed Ebola cases, stating that Ebola is a category A substance and "specimens from PUIs or patients confirmed to have Ebola virus infection should be packaged and shipped as Category A infectious substances" [4]. This likely suggests that such guidelines are in place, although they do not appear to be publicly available. Additionally, the Gulf Cooperation Council (GCC) Center for Infection Control published an infection prevention and control manual in 2013, which includes specimen collection protocol for Rabies, for viral hemorrhagic fever, for Methicillin-Resistant Staphylococcus Aureus (MRSA), as well as handling procedures for Severe Acute Respiratory Syndrome (SARS).. Still, it doesn't mention the terms 'Category A' and 'Category B' explicitly [5]. Note that the GCC Centre for Infection Control (CIC) Infection Prevention & Control Manual was adopted during the Health Ministers 64th Conference (Riyadh: 5-6/2/2008) and ratified in the 2013 Annual Advisory Board Meeting of the GCC-CIC (Riyadh: 27-30/1/2013); however, an online search did not provide evidence of full implementation of the manual's guidelines and best practices in Kuwait.

Furthermore, although Kuwait is a party to the Biological Weapons Convention, it has not submitted Confidence Building Measures since 1996. Access to its most recent CBM report is restricted and is not publicly available [6]. A review of the Kuwait International Laboratory (LABCO) website and the Farwaniya Hospital Medical Laboratory website has not yielded any further evidence [7, 8]. The website of the Ministry of Defence seems to be discontinued and provides an archived webpage from year 2013; no information is provided to suggest that Kuwait has publicly available information on national regulations on the safe and secure transport of infectious substances (Categories A and B) [9]. The website of the Public Authority for Roads and Transportation provides no information [10]. The VERTIC database does not offer additional information in this regard [11].

[1] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [<https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11-eng.pdf?sequence=1&isAllowed=y>]. Accessed February 16 2021.

[2] World Health Organization. 2016. "Joint External Evaluation Tool ". 2016.

[http://apps.who.int/iris/bitstream/10665/204368/1/9789241510172_eng.pdf]. Accessed February 16 2021.

[3] Ministry of Health. 2013. "National Guidelines: Laboratory Diagnosis Guidance and Lab Investigation of (MERS-CoV)". [<https://www.moh.gov.kw/ric/files/National-Guidelines-of-MERS-Laboratory-Diagnosis.pdf>]. Accessed February 16 2021.

[4] Ministry of Health - Infection Control Directorate. June 2018. "Updated Infection Prevention and Control Recommendations for Hospitalized Patients with Known or Suspected Ebola Virus Disease (EVD)".

[<http://www.icdkwt.com/pdf/policiesandguidelines/InfectionPreventionandControl/ebolavirus2018.pdf>]. Accessed February 16 2021.

[5] Gulf Cooperation Council - Centre for Infection Control (GCC-CIC) [hosted by Saudi Arabia's National Guard of Health Affairs]. 2013. "Infection Prevention & Control Manual - 2nd Edition".

[<https://www.moh.gov.sa/CCC/Documents/GCC%20Infection%20control%20manual%202013%20revisedOPT.pdf>]. Accessed February 16 2021.

[6] Biological Weapons Convention. "Kuwait". [<https://bwc-ecbm.unog.ch/state/kuwait>]. Accessed February 16 2021.

[7] Kuwait International Laboratory (LABCO). [<http://www.labco-kw.com/home.html>]. Accessed February 16 2021.

[8] Farwaniya Hospital. "Medical Laboratory". [<http://www.farwaniyahospital.org/medical-laboratory>]. Accessed February 16 2021.

[9] Ministry of Defence. [www.mod.gov.kw]. Accessed February 16 2021.

[10] Public Authority for Roads and Transportation. [<https://www.part.gov.kw/>]. Accessed February 16 2021.

[11] VERTIC Database. "Kuwait Profile". [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/k/>]. Accessed February 16 2021.

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 insufficient publicly available evidence to indicate whether Kuwait has national legislation, regulation, or another form of guidance to oversee the cross-border transfer and end-user screening of especially-dangerous pathogens. However, the Joint External Evaluation Assessment of Kuwait, published in May 2017, gave Kuwait's specimen referral and transport system a score of 5 out of 5, indicating a high level of demonstrated capacity. The JEE also notes that international transport regulations are being followed and people are being trained to adhere to the proper protocols [1].

Kuwait became a party to the Cartagena Protocol on Biosafety in 2017, which suggests the protocols of the agreement govern Kuwaiti cross-border movement of dangerous pathogens [2]. Additionally, in 2016, the Ministry of Health (MoH) published a manual on the safe management of wastes from health-care activities, and the manual states that Kuwait is a party to the United Nations Committee of Experts on the Transport of Dangerous Goods [3].

Although Kuwait is a party to the Biological Weapons Convention, it has not submitted Confidence Building Measures since 1996. Access to its most recent CBM report is restricted and is not publicly available [4]. No additional mention of regulations is made on the websites of the Ministry of Health, the Public Authority of Agriculture Affairs and Fish Resources, the General Department of Civil Defence, and the Ministry of Commerce and Industry [5, 6, 7, 8]. The website of the Ministry of Defence seems to be discontinued and provides an archived webpage from year 2013; no information is provided to suggest that Kuwait has national legislation, regulation, or another form of guidance to oversee the cross-border transfer and end-user screening of especially-dangerous pathogens [9]. The VERTIC database does not offer additional information in this regard [10].

[1] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [<https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11-eng.pdf?sequence=1&isAllowed=y>]. Accessed February 16 2021.

[2] Convention on Biological Diversity website. "Parties to the Cartagena Protocol and its Supplementary Protocol on Liability and Redress". [<https://bch.cbd.int/protocol/parties/>]. Accessed February 16 2021.

[3] Ministry of Health. 2016. "Safe Management of Wastes from Health-Care Activities". [<http://www.icdkwt.com/pdf/policiesandguidelines/ICforSupportiveServices/wastemanagement.pdf>]. Accessed February 16 2021.

[4] Biological Weapons Convention. "Kuwait". [<https://bwc-ecbm.unog.ch/state/kuwait>]. Accessed February 16 2021.

[5] Ministry of Health. [<https://www.moh.gov.kw/en>]. Accessed February 16 2021.

[6] Public Authority of Agriculture Affairs and Fish Resources. [<http://website.paaf.gov.kw/>]. Accessed February 16 2021.

[7] General Department of Civil Defense. [<https://www.moi.gov.kw/civildefense/en/index.aspx>]. Accessed February 16 2021.

[8] Ministry of Commerce and Industry. [<https://www.moci.gov.kw/>]. Accessed February 16 2021.

[9] Ministry of Defence. [www.mod.gov.kw]. Accessed February 16 2021.

[10] VERTIC Database. "Kuwait Profile". [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/k/>]. Accessed February 16 2021.

1.4 BIOSAFETY

1.4.1 Whole-of-government biosafety systems

1.4.1a

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

Yes = 1 , No = 0

Current Year Score: 1

Kuwait has national biosafety regulations in place.

According to the Joint External Evaluation (JEE) assessment of Kuwait, published in May 2017, a strong biosafety program is in place and the Ministry of Health sets national standards for health care facilities and laboratories in both the public and private sectors. The JEE adds that the national biosafety regulatory framework includes standard operating procedures for laboratories, universal precautions, appropriate packaging of material for transportation, the need for separating clean and contaminated areas, workplace risk assessments, incident reporting protocols, and other biosafety measures [1]. The JEE team noted that the premises and technical equipment in the laboratories visited appeared "mostly appropriate". However, the JEE also notes that documented information on a regulatory framework for biosecurity was not available [1].

The Ministry of Health has brief guidelines publicly available on the conditions that must be met for operating a laboratory in Kuwait (public or private). This includes some safety-related provisions (e.g. if the laboratory is part of a building with other facilities, the laboratory must have its own air condition system, and the laboratory cannot be less than 250 square meters). Licenses must also be renewed every two years [2].

Although Kuwait is a party to the Biological Weapons Convention, it has not submitted Confidence Building Measures since 1996. Access to its most recent CBM report is restricted and is not publicly available [3]. A review of online sources including the websites of the Ministry of Health's Department of Medical Laboratory Services website, the Kuwait International Laboratory (LABCO), the Farwaniya Hospital Medical Laboratory, and the Public Authority of Agriculture Affairs and Fish Resources has not yielded any further evidence [4, 5, 6, 7].

[1] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [<https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11-eng.pdf?sequence=1&isAllowed=y>]. Accessed February 16 2021.

[2] Kuwait Government Online. "Issuing Licenses to Open Medical Laboratories". [<https://www.e.gov.kw/sites/kgenglish/Pages/Services/MOH/OpenMedicalLaboratoriesLicense.aspx>]. Accessed February 16 2021.

[3] Biological Weapons Convention. "Kuwait". [<https://bwc-ecbm.unog.ch/state/kuwait>]. Accessed February 16 2021.

[4] Ministry of Health. "Department of Medical Laboratory Services". [<https://www.moh.gov.kw/Departments/5/5-1/5-1-2>]. Accessed February 16 2021.

[5] Kuwait International Laboratory (LABCO). [<http://www.labco-kw.com/home.html>]. Accessed February 16 2021.

[6] Farwaniya Hospital. "Medical Laboratory". [<http://www.farwaniyahospital.org/medical-laboratory>]. Accessed February 16 2021.

[7] Public Authority of Agriculture Affairs and Fish Resources. [<http://website.paaf.gov.kw/>]. Accessed February 16 2021.

1.4.1b

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

Yes = 1 , No = 0

Current Year Score: 1

Kuwait has an established agency responsible for the enforcement of biosafety legislation and regulations.

According to the Joint External Evaluation (JEE) assessment of Kuwait, published in May 2017, the Ministry of Health (MoH) has a monitoring mechanism in place for auditing laboratories in the health care system, which is used to supervise biosafety programs in both public and private sector laboratories [1].

Additionally, the Department of Medical Laboratory Services supervises all laboratories and monitors the quality of performance in accordance with Ministerial Resolution No 221 for the year 2009 [2]. The inspection committees of the MoH's Department of Medical Laboratory Services, in coordination with the Health Licensing Department, carry out inspection duties on medical laboratories in both the public and the private sector [2].

The MoH has brief guidelines publicly available on the conditions that must be met to obtain a license for operating a laboratory in Kuwait, which include some safety-related provisions. Licenses must also be renewed every 2 years, suggesting that the MoH is thereby responsible for the enforcement of biosafety regulations and legislation, at least every 2 years [3].

Furthermore, Kuwait is a party to the Biological Weapons Convention, it has not submitted Confidence Building Measures since 1996. Access to its most recent CBM report is restricted and is not publicly available [4].

[1] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [<https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11-eng.pdf?sequence=1&isAllowed=y>]. Accessed February 16 2021.

[2] Ministry of Health. "Department of Medical Laboratory Services". [<https://www.moh.gov.kw/Departments/5/5-1/5-1-2>]. Accessed February 16 2021.

[3] Kuwait Government Online. "Issuing Licenses to Open Medical Laboratories". [<https://www.e.gov.kw/sites/kgoenglish/Pages/Services/MOH/OpenMedicalLaboratoriesLisense.aspx>]. Accessed February 16 2021.

[4] Biological Weapons Convention. "Kuwait". [<https://bwc-ecbm.unog.ch/state/kuwait>]. Accessed February 16 2021.

1.4.2 Biosafety training and practices

1.4.2a

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

Yes = 1 , No = 0

Current Year Score: 0

There is insufficient publicly available evidence to suggest that Kuwait 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 .

According to the Joint External Evaluation (JEE) assessment of Kuwait, published in May 2017, Kuwait has an ongoing biosafety training program in place, which includes training of laboratory staff and trainers. However, the JEE notes that training for staff at the facilities housing especially dangerous pathogens and toxins has not yet been fully completed [1]. Additionally, there is no evidence that training is required.

The training department is located in the Ministry of Health's (MoH) Department of Laboratory Services. According to the Department's website, the training department undertakes several pieces of training, including organizing intensive training courses for laboratory staff in coordination with the MoH, organizing field training, and developing specialized courses [2]. The JEE also notes that all microbiology laboratories in the public and private sectors must have nominated biosafety officers, and laboratory staff is trained on the transport of infectious substances according to international standards [1].

However, no further information regarding standardized training is publicly available; nor is there evidence that ongoing training programs are required. Additionally, Kuwait is a party to the Biological Weapons Convention, it has not submitted Confidence Building Measures since 1996. Access to its most recent CBM report is restricted and is not publicly available [3]. A review of online sources including the websites of the Kuwait International Laboratory (LABCO), the Farwaniya Hospital Medical Laboratory, and the Public Authority of Agriculture Affairs and Fish Resources has not yielded any further evidence to indicate that Kuwait 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 [4, 5, 6]. The website of the Ministry of Defence seems to be discontinued and provides an archived webpage from year 2013; no information is provided to suggest that Kuwait 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 [7]. The VERTIC database does not offer additional information in this regard [8].

[1] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [<https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11-eng.pdf?sequence=1&isAllowed=y>]. Accessed February 17 2021.

[2] Ministry of Health. "Department of Medical Laboratory Services". [<https://www.moh.gov.kw/Departments/5/5-1/5-1-2>]. Accessed February 17 2021.

[3] Biological Weapons Convention. "Kuwait". [<https://bwc-ecbm.unog.ch/state/kuwait>]. Accessed February 17 2021.

[4] Kuwait International Laboratory (LABCO). [<http://www.labco-kw.com/home.html>]. Accessed February 16 2021.

[5] Farwaniya Hospital. "Medical Laboratory". [<http://www.farwaniyahospital.org/medical-laboratory>]. Accessed February 16 2021.

[6] Public Authority of Agriculture Affairs and Fish Resources. [<http://website.paaf.gov.kw/>]. Accessed February 16 2021.

[7] Ministry of Defence. [www.mod.gov.kw]. Accessed February 16 2021

[8] VERTIC Database. "Kuwait Profile". [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/k/>]. Accessed February 16 2021.

1.5 DUAL-USE RESEARCH AND CULTURE OF RESPONSIBLE SCIENCE

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

1.5.1a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that Kuwait has conducted an assessment to determine whether ongoing research is occurring on especially dangerous pathogens, toxins, and/or pathogens with pandemic potential.

A review of online sources including the Ministry of Health, the Public Authority of Agriculture Affairs and Fish Resources, and the General Department of Civil Defence websites has not provided evidence of the existence of such an assessment [1, 2, 3]. Furthermore, although Kuwait is a party to the Biological Weapons Convention, it has not submitted Confidence Building Measures since 1996. Access to its most recent CBM report is restricted and is not publicly available [4]. The Joint External Evaluation (JEE) assessment of Kuwait, published in May 2017, does not mention anything about dual-use research [5]. A review of online sources such as the Kuwait International Laboratory (LABCO) website and the Farwaniya Hospital Medical Laboratory website has not yielded any further evidence [6, 7]. The website of the Ministry of Defence seems to be discontinued and provides an archived webpage from year 2013; no information is provided to suggest that Kuwait has conducted an assessment to determine whether ongoing research is occurring on especially dangerous pathogens, toxins, and/or pathogens with pandemic potential [8]. The VERTIC database does not offer additional information in this regard [9].

[1] Ministry of Health. [<https://www.moh.gov.kw/en>]. Accessed February 17 2021.

[2] Public Authority of Agriculture Affairs and Fish Resources. "Livestock Sector".

[http://website.paaf.gov.kw/pls/portal/url/page/paafweb/HOME/ABOUT/ANIMAL_SECTOR]. Accessed February 17 2021.

[3] General Department of Civil Defense. [<https://www.moi.gov.kw/civildefense/en/index.aspx>]. Accessed February 17 2021.

[4] Biological Weapons Convention. "Kuwait". [<https://bwc-ecbm.unog.ch/state/kuwait>]. Accessed February 17 2021.

[5] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [<https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11-eng.pdf?sequence=1&isAllowed=y>]. Accessed February 17 2021.

[6] Kuwait International Laboratory (LABCO). [<http://www.labco-kw.com/home.html>]. Accessed February 17 2021.

[7] Farwaniya Hospital. "Medical Laboratory". [<http://www.farwaniyahospital.org/medical-laboratory>]. Accessed February 17 2021.

[8] Ministry of Defence. [www.mod.gov.kw]. Accessed February 17 2021.

[9] VERTIC Database. "Kuwait Profile". [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/k/>]. Accessed February 17 2021.

1.5.1b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that shows that Kuwait has a national policy that requires the oversight of dual use research, such as research with especially dangerous pathogens, toxins, and/or pathogens with pandemic potential. According to the World Health Organization's 'National health research system mapping in the Eastern Mediterranean' study, published in 2008, Kuwait commits researchers to adhere to ethical principles. However, no further information on research oversight is provided [1]. A review of online sources including the Ministry of Health, the Public Authority of Agriculture Affairs and Fish Resources, and the General Department of Civil Defence websites has not provided evidence of the existence of a national policy overseeing dual use research [2, 3, 4]. Furthermore, although Kuwait is party to the Biological Weapons Convention, it has not submitted Confidence Building Measures since 1996. Access to its most recent CBM report is

restricted, and is not publicly available [5]. The Joint External Evaluation (JEE) assessment of Kuwait, published in May 2017, does not mention anything about dual use risk [6]. A review of online sources such as the Kuwait International Laboratory (LABCO) website and the Farwaniya Hospital Medical Laboratory website has not yielded any further evidence [7, 8]. The website of the Ministry of Defence seems to be discontinued and provides an archived webpage from year 2013; no information is provided to suggest that Kuwait has a national policy that requires the oversight of dual use research, such as research with especially dangerous pathogens, toxins, and/or pathogens with pandemic potential [9]. The VERTIC database does not offer additional information in this regard [10].

- [1] World Health Organization Regional Office for the Eastern Mediterranean. 2008. "National Health Research System Mapping in the Eastern Mediterranean Region - A Study of Ten Countries". [<http://www.cohred.org/wp-content/uploads/2011/05/NHRS-in-EMRO-study-2008.pdf>]. Accessed February 17 2021.
- [2] Ministry of Health. [<https://www.moh.gov.kw/en>]. Accessed February 17 2021.
- [3] Public Authority of Agriculture Affairs and Fish Resources. "Livestock Sector". [http://website.paaf.gov.kw/pls/portal/url/page/paafweb/HOME/ABOUT/ANIMAL_SECTOR]. Accessed February 17 2021.
- [4] General Department of Civil Defence. [<https://www.moi.gov.kw/civildefense/en/index.aspx>]. Accessed February 17 2021.
- [5] Biological Weapons Convention. "Kuwait". [<https://bwc-ecbm.unog.ch/state/kuwait>]. Accessed February 17 2021.
- [6] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [<https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11-eng.pdf?sequence=1&isAllowed=y>]. Accessed February 17 2021.
- [7] Kuwait International Laboratory (LABCO). [<http://www.labco-kw.com/home.html>]. Accessed February 17 2021.
- [8] Farwaniya Hospital. "Medical Laboratory". [<http://www.farwaniyahospital.org/medical-laboratory>]. Accessed February 17 2021.
- [9] Ministry of Defence. [www.mod.gov.kw]. Accessed February 17 2021.
- [10] VERTIC Database. "Kuwait Profile". [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/k/>]. Accessed February 17 2021.

1.5.1c

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that Kuwait has an agency responsible for overseeing research with especially dangerous pathogens, toxins, and/or pathogens with pandemic potential or dual use research. According to the World Health Organization's "National health research system mapping in the Eastern Mediterranean" study, published in 2008, Kuwait commits researchers to adhere to ethical principles. However, no further information on research oversight is provided [1]. Although Kuwait is party to the Biological Weapons Convention, it has not submitted Confidence Building Measures since 1996. Access to its most recent CBM report is restricted, and is not publicly available [2]. A review of online sources including the Ministry of Health, the Public Authority of Agriculture Affairs and Fish Resources, and the General Department of Civil Defence websites has not provided evidence of the existence of a national policy overseeing dual use research [3, 4, 5]. The Joint External Evaluation (JEE) assessment of Kuwait, published in May 2017, does not mention anything about dual use risk [6]. A review of online sources such as the Kuwait International Laboratory (LABCO) website and the Farwaniya Hospital Medical Laboratory website has not yielded any further evidence [7, 8]. The website of the Ministry of Defence seems to be discontinued and provides an archived webpage from year 2013; no information is provided to suggest that Kuwait has an agency responsible for overseeing research with especially dangerous pathogens, toxins, and/or pathogens with pandemic

potential or dual use research [9]. The VERTIC database does not offer additional information in this regard [10].

- [1] World Health Organization Regional Office for the Eastern Mediterranean. 2008. "National Health Research System Mapping in the Eastern Mediterranean Region - A Study of Ten Countries". [<http://www.cohred.org/wp-content/uploads/2011/05/NHRS-in-EMRO-study-2008.pdf>]. Accessed February 17 2021.
- [2] Biological Weapons Convention. "Kuwait". [<https://bwc-ecbm.unog.ch/state/kuwait>]. Accessed February 17 2021.
- [3] Ministry of Health. [<https://www.moh.gov.kw/en>]. Accessed February 17 2021.
- [4] Public Authority of Agriculture Affairs and Fish Resources. "Livestock Sector". [http://website.paaf.gov.kw/pls/portal/url/page/paafweb/HOME/ABOUT/ANIMAL_SECTOR]. Accessed February 17 2021.
- [5] General Department of Civil Defence. [<https://www.moi.gov.kw/civildefense/en/index.aspx>]. Accessed February 17 2021.
- [6] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [<https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11-eng.pdf?sequence=1&isAllowed=y>]. Accessed February 17 2021.
- [7] Kuwait International Laboratory (LABCO). [<http://www.labco-kw.com/home.html>]. Accessed February 17 2021.
- [8] Farwaniya Hospital. "Medical Laboratory". [<http://www.farwaniyahospital.org/medical-laboratory>]. Accessed February 17 2021.
- [9] Ministry of Defence. [www.mod.gov.kw]. Accessed February 17 2021.
- [10] VERTIC Database. "Kuwait Profile". [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/k/>]. Accessed February 17 2021.

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 publicly available evidence that Kuwait has national legislation, regulation, policy, or other guidance, requiring the screening of synthesized DNA before it is sold. A review of regulations issued by the Ministry of Health (MoH) (including the MoH's Drug and Food Control Center), the Public Authority of Agriculture Affairs and Fish Resources, and the General Department of Civil Defence websites has not provided evidence of the existence of any requirement for the screening of synthesized DNA to avoid known pathogens and toxin-related DNA before it is sold [1, 2, 3, 4]. Although Kuwait is party to the Biological Weapons Convention, it has not submitted Confidence Building Measures since 1996. Access to its most recent CBM report is restricted, and is not publicly available [5]. Furthermore, Kuwait applies Gulf Standardization Organization (GSO) biotech regulations on food and agricultural products. The GSO regulations, issued in 2011, call for biotech labelling if the biotech content of processed or unprocessed agricultural products exceeds one percent. Still, it is unclear whether the regulation relates to non-plant life, or that it is inclusive of DNA and not just crops [6, 7]. The Joint External Evaluation (JEE) assessment of Kuwait, published in May 2017, does not provide information in this regard [8]. A review of online sources such as the Kuwait International Laboratory (LABCO) website and the Farwaniya Hospital Medical Laboratory website has not yielded any further evidence [9, 10]. The website of the Ministry of Defence seems to be discontinued and provides an archived webpage from year 2013; no information is provided to suggest that Kuwait has national legislation, regulation, policy, or other guidance, requiring the screening of synthesized DNA before it is sold [11]. The website of the Public Authority for Roads and Transportation provides no information [12]. The VERTIC database does not offer additional information in this regard [13].

- [1] Ministry of Health. [<https://www.moh.gov.kw/>]. Accessed February 17 2021.
- [2] Ministry of Health. "Drug and Food Control Center". [<https://www.moh.gov.kw/Online-Services/Drug-Food-Control>]. Accessed February 17 2021.
- [3] Public Authority of Agriculture Affairs and Fish Resources. "Livestock Sector". [http://website.paaf.gov.kw/pls/portal/url/page/paafweb/HOME/ABOUT/ANIMAL_SECTOR]. Accessed February 17 2021.
- [4] General Department of Civil Defence. [<https://www.moi.gov.kw/civildefense/en/index.aspx>]. Accessed February 17 2021.
- [5] Biological Weapons Convention. "Kuwait". [<https://bwc-ecbm.unog.ch/state/kuwait>]. Accessed February 17 2021.
- [6] GCC Standardization Organization. 2010. "General Requirements for Genetically Modified Processed Food and Feed". [https://members.wto.org/crnattachments/2010/tbt/KWT/10_3895_00_e.pdf]. Accessed February 17 2021.
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- [8] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [<https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11-eng.pdf?sequence=1&isAllowed=y>]. Accessed February 17 2021.
- [9] Kuwait International Laboratory (LABCO). [<http://www.labco-kw.com/home.html>]. Accessed February 17 2021.
- [10] Farwaniya Hospital. "Medical Laboratory". [<http://www.farwaniyahospital.org/medical-laboratory>]. Accessed February 17 2021.
- [11] Ministry of Defence. [www.mod.gov.kw]. Accessed February 17 2021.
- [12] Public Authority for Roads and Transportation. [<https://www.part.gov.kw/>]. Accessed February 16 2021.
- [13] VERTIC Database. "Kuwait Profile". [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/k/>]. Accessed February 17 2021.

1.6 IMMUNIZATION

1.6.1 Vaccination rates

1.6.1a

Immunization rate (measles/MCV2)

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

Current Year Score: 1

2019

World Health Organization

1.6.1b

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

Yes = 1, No = 0

Current Year Score: 1

2020

OIE WAHIS database

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

2.1 LABORATORY SYSTEMS STRENGTH AND QUALITY

2.1.1 Laboratory testing for detection of priority diseases

2.1.1a

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

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

Current Year Score: 1

Kuwait's national laboratory system has the capacity to conduct diagnostic tests for at least 5 of the 10 WHO-defined core tests although the tests are not named.

According to the Joint External Evaluation (JEE) assessment of Kuwait, published in May 2017, Kuwait scores a 5 out of 5 on laboratory testing for detection of priority diseases, which according to the scoring criteria indicates that in addition to the country being capable of conducting five or more of the ten core tests, the country also has a national system for procurement and quality assurance [1, 2]. The JEE adds that Kuwait's laboratory system in the health care and veterinary sectors "is capable of detecting most of the ten core tests identified by the IHR, and agreements are in place for having the remaining tests carried out in international reference laboratories" [1].

The JEE states that in the health care sector, laboratory tests based on nucleic acid amplification are available for a range of microbes, and in Kuwait's Public Health Laboratory sequencing-based tests are conducted and point of care testing is being introduced. In the national Central Veterinary Laboratory, molecular testing is available for several microbes, and the National Central TB Laboratory is capable of culturing mycobacteria [1]. The three aforementioned laboratories do not appear to have websites.

A review of online sources, including the Ministry of Health's Department of Medical Laboratory Services website, the Kuwait International Laboratory (LABCO) website, and the Farwaniya Hospital Medical Laboratory website has not yielded any further evidence [3, 4, 5].

[1] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [<https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11-eng.pdf?sequence=1&isAllowed=y>]. Accessed February 18 2021.

[2] World Health Organization. 2016. "Joint External Evaluation Tool ". 2016.

[http://apps.who.int/iris/bitstream/10665/204368/1/9789241510172_eng.pdf]. Accessed February 18 2021.

[3] Ministry of Health. "Department of Medical Laboratory Services". [<https://www.moh.gov.kw/Departments/5/5-1/5-1-2>]. Accessed February 18 2021.

[4] Kuwait International Laboratory (LABCO). [<http://www.labco-kw.com/home.html>]. Accessed February 18 2021.

[5] Farwaniya Hospital. "Medical Laboratory". [<http://www.farwaniyahospital.org/medical-laboratory>]. Accessed February 18 2021.

2.1.1b

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

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

Current Year Score: 0

There is no evidence that Kuwait has 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.

According to the Joint External Evaluation (JEE) assessment of Kuwait, published in May 2017, "in the health care sector, laboratory tests based on nucleic acid amplification are available for a range of microbes both in the public and private clinical microbiology laboratories, and in the public health laboratories. In the Public Health Laboratory (PHL), sequencing is implemented. Point of care testing is being introduced, and a national committee monitors that the quality of this testing is ensured. Also in the Central Veterinary Laboratory (CVL), molecular testing is available for several microbes"[1].

The JEE report adds that "Kuwait is at an early stage of planning to introduce interlinked laboratory information systems, to facilitate efficient real-time exchange of data between laboratories and transmit case-based notifications to the epidemiologic surveillance system". Further, Kuwait scores a 5 out of 5 on the JEE's indicator D.1.3 ("Effective modern point of care and laboratory based diagnostics"), however, the JEE recommends that Kuwait should "develop a regulatory framework for national microbiological reference laboratories (NRL), covering all reference laboratory functions to support key communicable disease control programmes"[1]. There is no mention of a national plan, strategy or similar document for conducting testing during a public health emergency, which includes considerations for testing for novel pathogens, scaling capacity, and defining goals for testing.

The websites of the Ministry of Health, the Public Authority of Agriculture Affairs and Fish Resources, the Kuwait International Laboratory (LABCO), and the Farwaniya Hospital Medical Laboratory have not yielded any further evidence in this regard [2, 3, 4, 5]. Although Kuwait is a party to the Biological Weapons Convention, it has not submitted Confidence Building Measures since 1996. Access to its most recent CBM report is restricted and is not publicly available [6].

[1] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [<https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11-eng.pdf?sequence=1&isAllowed=y>]. Accessed February 18 2021.

[2] Ministry of Health. [<https://www.moh.gov.kw/>]. Accessed February 18 2021.

[3] Public Authority of Agriculture Affairs and Fish Resources. [<http://www.paaf.gov.kw/>]. Accessed February 18 2021.

[4] Kuwait International Laboratory (LABCO). [<http://www.labco-kw.com/home.html>]. Accessed February 18 2021.

[5] Farwaniya Hospital. "Medical Laboratory". [<http://www.farwaniyahospital.org/medical-laboratory>]. Accessed February 18 2021.

[6] Biological Weapons Convention. "Kuwait". [<https://bwc-ecbm.unog.ch/state/kuwait>]. Accessed February 18 2021.

2.1.2 Laboratory quality systems

2.1.2a

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

Yes = 1 , No = 0

Current Year Score: 0

There is insufficient publicly available evidence that shows that Kuwait has a national laboratory that serves as a reference facility that is accredited.

According to the Joint External Evaluation (JEE) assessment of Kuwait, published in May 2017, the Public Health Laboratory (PHL) was designated the national reference laboratory by the Ministry of Health (MoH) for a number of diseases including HIV, Bacillus anthracis, poliovirus, Zika virus, and Middle East Respiratory Syndrome (MERS-CoV). The JEE notes that as of May 2017, the PHL was undergoing the accreditation process. However, it does not mention the specific type of accreditation. A review of online sources has not yielded any evidence in this regard [1].

However, the Kuwait national poliovirus laboratory is located in the PHL and is part of the Eastern Mediterranean Region poliovirus laboratories network, and the World Health Organization (WHO) reports that the poliovirus laboratory is accredited by the WHO. According to a news report by the Kuwait News Agency in 2018, the polio laboratory within the PHL has been "approved by WHO as the regional laboratory for polio testing in the Middle East", and has been accredited by the College of American Pathologists and the International Standards Organization (ISO specification is not specifically mentioned) [2, 3].

The PHL does not appear to have a website; it has a Facebook social media page that is inactive, and no further information was found on the websites of the Ministry of Health and the Public Authority of Agriculture Affairs and Fish Resources [4, 5]. The JEE also notes that a number of the laboratories in the healthcare sector, including the PHL, also participate regularly in international EQA schemes [1].

[1] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [<https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11-eng.pdf?sequence=1&isAllowed=y>]. Accessed February 18 2021.

[2] Kuwait News Agency. 2018. "Kuwait Receives Key WHO Lab Accreditation for Polio Testing". [<https://www.kuna.net.kw/ArticleDetails.aspx?id=2733861&language=en#>]. Accessed February 18 2021.

[3] World Health Organization. "Polio Eradication Initiative". [<http://www.emro.who.int/polio/countries/Page-3.html>]. Accessed February 18 2021.

[4] Ministry of Health. [<https://www.moh.gov.kw/en>]. Accessed February 18 2021.

[5] Public Authority of Agriculture Affairs and Fish Resources. [<http://www.paaf.gov.kw/>]. Accessed February 18 2021.

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

Kuwait has a national laboratory that serves as a reference facility that is subject to external quality assurance.

According to the Joint External Evaluation (JEE) assessment of Kuwait, published in May 2017, the Public Health Laboratory was designated the national reference laboratory by the Ministry of Health (MoH) for a number of diseases including HIV, Bacillus anthracis, poliovirus, Zika virus, and MERS-CoV. The JEE notes that the MoH implements a national external quality assurance (EQA) program, and participation is obligatory for all publicly funded and private clinical microbiology laboratories. A number of the laboratories in the health care sector, including the Public Health Laboratory, also participate regularly in international EQA schemes. Publicly funded laboratories including the Public Health Laboratory are also subject to regular monitoring visits [1]. The Public Health Laboratory does not appear to have a website and no further information was found on the website of the Ministry of Health [2].

[1] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [<https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11-eng.pdf?sequence=1&isAllowed=y>]. Accessed February 18 2021.

[2] Ministry of Health. [<https://www.moh.gov.kw/en>]. Accessed February 18 2021.

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 to suggest that Kuwait has a nation-wide specimen transport system in place.

According to the Joint External Evaluation (JEE) assessment of Kuwait, published in May 2017, a specimen transport and referral system within the country exists in the health care sector for a number of specimens, and "the logistics of specimen referral both nationally and to international regional reference laboratories is well organized in the health and veterinary sector, with staff trained for the purpose. International standards are followed in packaging" [1].

The JEE has given Kuwait's system a score of 5 out of 5, which according to the scoring criteria indicates 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 and that systems are in place to transport specimens to and from labs across the region [1, 2]. The JEE notes that specimen transportation logistics mechanisms are well-developed, specimen transport and referral for both the health and veterinary sector are well organized, and international transport regulations are followed [1].

No further information was found on either the Ministry of Health or the Public Authority of Agriculture Affairs and Fish Resources websites [3, 4].

[1] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [<https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11-eng.pdf?sequence=1&isAllowed=y>]. Accessed February 18 2021.

[2] World Health Organization. 2016. "Joint External Evaluation Tool ". 2016.

[http://apps.who.int/iris/bitstream/10665/204368/1/9789241510172_eng.pdf]. Accessed February 18 2021.

[3] Ministry of Health. [<https://www.moh.gov.kw/>]. Accessed February 18 2021.

[4] Public Authority of Agriculture Affairs and Fish Resources.

[http://website.paaf.gov.kw/portal/page?_pageid=136,2619906&_dad=portal&_schema=PORTAL]. Accessed February 18 2021.

2.2.2 Laboratory cooperation and coordination

2.2.2a

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

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

Current Year Score: 0

There is no 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 (JEE) assessment of Kuwait, published in May 2017, recommends that "Emergency Operations Center (EOC) scaled levels of response should be documented in plans describing the resource requirements for each level and procedures for acquiring additional resources [1]". In terms of testing, the JEE states that "in the health care sector, laboratory tests based on nucleic acid amplification are available for a range of microbes both in the public and private clinical microbiology laboratories, and in the public health laboratories. In the Public Health Laboratory (PHL), sequencing is implemented. Point of care testing is being introduced, and a national committee monitors that the quality of this testing is ensured. Also in the Central Veterinary Laboratory (CVL), molecular testing is available for several microbes"[1]. The JEE report adds that "Kuwait is at an early stage of planning to introduce interlinked laboratory information systems, to facilitate efficient real-time exchange of data between laboratories and transmit case based notifications to the epidemiologic surveillance system". Further, the JEE recommends that Kuwait should "develop a regulatory framework for national microbiological reference laboratories (NRL), covering all reference laboratory functions to support key communicable disease control programmes"[1].

There is no mention of a national plan, strategy or similar document for conducting testing during a public health emergency; nor is there any mention of a plan in place to rapidly authorize or license laboratories to supplement the capacity of the national public health laboratory system to scale-up testing during an outbreak.

The websites of the Ministry of Health, the Public Authority of Agriculture Affairs and Fish Resources, the Kuwait International Laboratory (LABCO), and the Farwaniya Hospital Medical Laboratory have not yielded any further evidence in this regard [2, 3, 4, 5]. Although Kuwait is party to the Biological Weapons Convention, it has not submitted Confidence Building Measures since 1996. Access to its most recent CBM report is restricted, and is not publicly available [6].

[1] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [<https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11-eng.pdf?sequence=1&isAllowed=y>]. Accessed February 20 2021.

[2] Ministry of Health. [<https://www.moh.gov.kw/>]. Accessed February 20 2021.

[3] Public Authority of Agriculture Affairs and Fish Resources. [<http://www.paaf.gov.kw/>]. Accessed February 20 2021.

[4] Kuwait International Laboratory (LABCO). [<http://www.labco-kw.com/home.html>]. Accessed February 20 2021.

[5] Farwaniya Hospital. "Medical Laboratory". [<http://www.farwaniyahospital.org/medical-laboratory>]. Accessed February 20 2021.

[6] Biological Weapons Convention. "Kuwait". [<https://bwc-ecbm.unog.ch/state/kuwait>]. Accessed February 20 2021.

2.3 REAL-TIME SURVEILLANCE AND REPORTING

2.3.1 Indicator and event-based surveillance and reporting systems

2.3.1a

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

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

Current Year Score: 0

There is no public evidence that Kuwait has an event-based surveillance system in place, or that Kuwait is conducting ongoing event-based surveillance and analysis for infectious disease.

According to the Joint External Evaluation (JEE) assessment of Kuwait, published in May 2017, while Kuwait has an established indicator-based reporting system, event-based surveillance is not fully implemented and currently happens on an ad hoc basis in response to media alerts. The JEE suggests that further developments and training are required for event-based surveillance [1]. Additionally, while the Gulf Cooperation Council Emergency Management Center is headquartered in Kuwait, it is not clear that an event-based surveillance system is in place [2].

The Ministry of Health's Infection Control Directorate has 'process' and 'outcome' surveillance systems in place, however, neither of these appears to include event-based surveillance [3, 4]. A review of the websites of the Ministry of Health, the Public Authority of Agriculture Affairs and Fish Resources, the Kuwait International Laboratory (LABCO), and the Farwaniya Hospital Medical Laboratory have not yielded any further evidence in this regard [5, 6, 7, 8].

[1] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [<https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11-eng.pdf?sequence=1&isAllowed=y>]. Accessed February 20 2021.

[2] Secretariat General of the Gulf Cooperation Council. 10th December 2018. "The GCC Emergency Management Center holds the "Foundations of Chemical and Biological Threats" workshop". [<http://www.gcc-sg.org/en-us/MediaCenter/NewsCooperation/News/Pages/news2018-12-10-2.aspx>]. Accessed February 20 2021.

[3] Ministry of Health Infection Control Directorate. "Process Surveillance". [http://www.icdkwt.com/surveillance_process.php]. Accessed February 20 2021.

[4] Ministry of Health Infection Control Directorate. "Outcome Surveillance". [http://www.icdkwt.com/surveillance_outcome.php]. Accessed February 20 2021.

[5] Ministry of Health. [<https://www.moh.gov.kw/>]. Accessed February 20 2021.

[6] Public Authority of Agriculture Affairs and Fish Resources. [<http://www.paaf.gov.kw/>]. Accessed February 20 2021.

[7] Kuwait International Laboratory (LABCO). [<http://www.labco-kw.com/home.html>]. Accessed February 20 2021.

[8] Farwaniya Hospital. "Medical Laboratory". [<http://www.farwaniyahospital.org/medical-laboratory>]. Accessed February 20 2021.

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 publicly available evidence that Kuwait reported a potential public health emergency of international concern (PHEIC) to the WHO within the last two years including for Covid-19.

According to the WHO's 'Emergencies, Preparedness, Response' profile of Kuwait, the last reported outbreak was a case of Middle East Respiratory Syndrome (MERS) in September 2015 [1]. A review of Kuwait's country profile on the World Health Organization (WHO) website, as well as the WHO Regional Office for the Eastern Mediterranean has not provided any additional information to show that Kuwait reported a potential public health emergency of international concern (PHEIC) to the WHO within the last two years [2, 3].

A review of the Ministry of Health's website and the Joint External Evaluation assessment of Kuwait, published in March 2017, has not provided any further evidence in this regard [4, 5].

[1] World Health Organization. September 2015. "Emergencies, Preparedness, Response: Middle East respiratory syndrome coronavirus (MERS-CoV) - Kuwait". [<https://www.who.int/csr/don/23-september-2015-mers-kuwait/en/>]. Accessed February 20 2021.

[2] World Health Organization. "Countries: Kuwait". [<https://www.who.int/countries/kwt/en/>]. Accessed February 20 2021.

[3] World Health Organization. "Regional Office for the Eastern Mediterranean". [<http://www.emro.who.int/entity/media/news-archive.html>]. Accessed February 20 2021.

[4] Ministry of Health. [<https://www.moh.gov.kw/>]. Accessed February 20 2021.

[5] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [<https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11-eng.pdf?sequence=1&isAllowed=y>]. Accessed February 20 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

There is insufficient publicly available evidence to show that the government of Kuwait operates an electronic reporting surveillance system at both the national and sub-national level.

The 'Statistics' section of the Ministry of Health's (MoH) website includes publications on the national nutrition surveillance program, however, there is no evidence of disease monitoring [1, 2].

The MoH Infection Control Directorate contains a section on surveillance for both 'outcome' and 'process' surveillance, however, this appears to be limited to healthcare-associated infections [3, 4].

The Joint External Evaluation (JEE) assessment of Kuwait, published in May 2017, reports that Kuwait has surveillance systems in place for priority communicable diseases and syndromes with weekly reporting systems in place and monthly and annual summaries produced. The JEE also notes that Kuwait's surveillance system is still paper-based, however, there have been efforts to move to an electronic notification system [5]. A review of online sources has not indicated that this has taken

place yet, and no further information was found on the MoH website [6].

- [1] Ministry of Health. "Statistics". [<https://www.moh.gov.kw/Ministry-Statistics>]. Accessed February 20 2021.
- [2] Ministry of Health. 2016. "The Kuwait Nutrition Surveillance System: 2016 Annual Report". [<https://www.moh.gov.kw/Renderers/ShowPdf.ashx?Id=62b5708c-d2fa-45a5-b677-c02632ac76a7>]. Accessed February 20 2021.
- [3] Ministry of Health Infection Control Directorate. "Process Surveillance". [http://www.icdkwt.com/surveillance_process.php]. Accessed February 20 2021.
- [4] Ministry of Health Infection Control Directorate. "Outcome Surveillance". [http://www.icdkwt.com/surveillance_outcome.php]. Accessed February 20 2021.
- [5] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [<https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11-eng.pdf?sequence=1&isAllowed=y>]. Accessed February 20 2021.
- [6] Ministry of Health. [<https://www.moh.gov.kw/>]. Accessed February 20 2021.

2.3.2b

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

Yes = 1 , No = 0

Current Year Score: 0

There is insufficient publicly available evidence to suggest that the government of Kuwait operates an electronic reporting surveillance system, or that this system collects ongoing real-time laboratory data. The Ministry of Health's Infection Control Directorate contains a section on surveillance for both 'outcome' and 'process' surveillance [1, 2]. While this appears to be limited to healthcare associated infections, there is evidence that some data is collected from laboratories [2]. The Joint External Evaluation (JEE) assessment of Kuwait, published in May 2017, reports that Kuwait has surveillance systems in place for priority communicable diseases and syndromes with weekly reporting systems in place and monthly and annual summaries produced, however it recommends that laboratory and veterinary reports need to be integrated into this system suggesting that the collection of ongoing real-time laboratory data is weak. The JEE also notes that Kuwait's surveillance system is still paper-based, however there have been efforts to move to an electronic notification system [3]. A review of online sources, including the Ministry of Health's website, has not provided any further evidence [4].

- [1] Ministry of Health Infection Control Directorate. "Process Surveillance". [http://www.icdkwt.com/surveillance_process.php]. Accessed February 20 2021.
- [2] Ministry of Health Infection Control Directorate. "Outcome Surveillance". [http://www.icdkwt.com/surveillance_outcome.php]. Accessed February 20 2021.
- [3] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [<https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11-eng.pdf?sequence=1&isAllowed=y>]. Accessed February 20 2021.
- [4] Ministry of Health. [<https://www.moh.gov.kw/>]. Accessed February 20 2021.

2.4 SURVEILLANCE DATA ACCESSIBILITY AND TRANSPARENCY

2.4.1 Coverage and use of electronic health records

2.4.1a

Are electronic health records commonly in use?

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

Current Year Score: 1

Electronic health records are commonly used in Kuwait.

According to a 2018 study titled, "Physicians' Perceptions of Electronic Prescribing with an Electronic Medical Record in Kuwait Primary Healthcare Centers", "there are a total of 97 primary healthcare centres located throughout the country". The study mentions as well that "in 2000, the national health information Electronic Medical Records (EMR) system was developed by the Ministry of Health (MOH) and subsequently implemented in all primary healthcare centres in 2001", demonstrating that EMRs are in use [1].

According to a study published in the Health Information Management Journal in 2009, since 1999, one of the key objectives of the MoH has been to establish an Electronic Medical Record system under the Ministry's computerization program [2]. The study notes that as of 2009, there were 78 medical centers across Kuwait's 5 regions using electronic medical records [2].

In 2013 Department of Information Systems (DoIS) and the MoH released a plan detailing the creation of an electronic medical records system, including a patient and doctor portal which is fully integrated with primary healthcare systems as well as hospital health information systems [3, 4]. According to the plan, in 2012 the DoIS and MoH began operating a new data center with the purpose of catering to various ICT-related services to all hospitals and clinics in Kuwait. The plan also states that patients would have electronic access to their medical records through this system [3].

While implementation rates are not clear, electronic health records do seem to be increasingly used. Al Jarida, a Kuwaiti newspaper reported in 2017 that Al Farwaniya hospital, the main public hospital in the Al Farwaniya region, had plans to transfer all medical records into the electronic form [5].

In September 2017, Al Jarida also reported that the MoH had plans to put forward a unified electronic health system and issued a tender in late 2017, however, it is not clear which parties are anticipated to use this system [6]. The Joint External Evaluation (JEE) assessment of Kuwait, published in May 2017, does not bring any mention of electronic health records [7].

[1] Al Mutairi, Al-Azmi, Potts. November 2018. "Physicians' Perceptions of Electronic Prescribing with an Electronic Medical Record in Kuwait Primary Healthcare Centers". Sultan Qaboos University Medical Journal.

[https://www.researchgate.net/publication/332245661_Physicians%27_Perceptions_of_Electronic_Prescribing_with_an_Electronic_Medical_Record_in_Kuwait_Primary_Healthcare_Centers]. Accessed February 20 2021.

[2] Al-Azmi, S., Chowdhury, R., Al-Enzi, N. 2009. "User's Attitudes to an Electronic Medical Record Systems and its Correlates: A Multivariate Analysis". The Health Information Management Journal Volume 38 [2].

[https://www.researchgate.net/publication/26311041_Users'_attitudes_to_an_electronic_medical_record_system_and_its_correlates_A_multivariate_analysis]. Accessed February 20 2021.

[3] Ministry of Health and Department of Information Systems. 2013. "IT Vision and Applications - 2013".

[https://www.who.int/goe/policies/countries/kwt_ehealth.pdf?ua=1]. Accessed February 20 2021.

[4] World Health Organization. 2013. "Global Observatory for eHealth: Kuwait".

[<https://www.who.int/goe/policies/countries/kwt/en/>]. Accessed February 20 2021.

[5] Al Jarida news. November 2017. "Electronic Health Records in Al Farwaniya... Soon".

[<http://www.aljarida.com/articles/1509988158261803100/>]. Accessed February 20 2021.

[6] Al Jarida news. September 2017. "Health: Introducing Unified Electronic Records".

[<http://www.aljarida.com/articles/1505235617753070600/>]. Accessed February 20 2021.

[7] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [<https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11-eng.pdf?sequence=1&isAllowed=y>]. Accessed February 20 2021.

2.4.1b

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

Yes = 1 , No = 0

Current Year Score: 0

There is insufficient evidence that the national public health system has access to electronic health records of individuals in Kuwait. According to the Ministry of Health's (MoH) Central Department for Primary Health Care, the total number of primary health care centres under the MoH is 97, all of which use electronic records [1]. Although there is insufficient evidence that the Ministry of Health has direct access to individual health records, there is evidence of efforts to create such a system. In 2013 Department of Information Systems (DoIS) and the MoH released a plan detailing the creation of an electronic medical records system, including a patient and doctor portal which is fully integrated with primary healthcare systems as well as hospital health information systems [2, 3]. According to the plan, one of the anticipated uses of the new system is to better connect the government to citizens and enable "a citizen centric process [of] citizen data integration" wherein a single source of records exists through a 'citizen data hub'. The plan also notes that laboratory results would be delivered through the 'library information system' online [2]. In September 2017, Al Jarida also reported that the MoH had plans to put forward a unified electronic health system and issued a tender in late 2017, however, it is not clear who is anticipated to use this system. [4] The Joint External Evaluation (JEE) assessment of Kuwait, published in May 2017, does not bring any mention of electronic health records [5].

[1] Ministry of Health. "Central Department for Primary Health Care". [<https://www.moh.gov.kw/en/Departments/5/5-2/5-2-2>]. Accessed February 21 2021.

[2] Ministry of Health and Department of Information Systems. 2013. "IT Vision and Applications - 2013".

[https://www.who.int/goe/policies/countries/kwt_ehealth.pdf?ua=1]. Accessed February 21 2021.

[3] World Health Organization. 2013. "Global Observatory for eHealth: Kuwait".

[<https://www.who.int/goe/policies/countries/kwt/en/>]. Accessed February 21 2021.

[4] Al Jarida news. September 2017. "Health: Introducing Unified Electronic Records".

[<http://www.aljarida.com/articles/1505235617753070600/>]. Accessed February 21 2021.

[5] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [<https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11-eng.pdf?sequence=1&isAllowed=y>]. Accessed February 21 2021.

2.4.1c

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

Yes = 1 , No = 0

Current Year Score: 1

There is evidence to suggest that Kuwait has data standards to ensure that data is comparable. In 2013 Department of Information Systems (DoIS) and the Ministry of Health (MoH) released a plan detailing the creation of an electronic medical records system, including a patient and doctor portal which is fully integrated with primary healthcare systems as well as hospital health information systems [1, 2]. According to the plan, the MoH has special software packages in place for all hospitals within the MoH network. The MoH is reported to have implemented solutions based on global firms Unix and Oracle's relational databases to ensure achieving a single medical electronic file database [2]. The Unix operating system uses certain standards to ensure the security and standardization of data, such as system V interface definition (SVID3) and various industry standard specifications including Federal Information Processing Standards (FIPS) and Portable Operating System Interface (POSIX) [2]. The MoH also has a publicly available training plan for their information system, however, course examples appear to be quite basic (e.g. windows 10, printings skills, power point 2016) [3, 4]. A review has not provided any indication of International Standards Organization (ISO) standards in place, including in the Joint External Evaluation (JEE) assessment of Kuwait, published in May 2017 [5].

[1] World Health Organization. 2013. "Global Observatory for eHealth: Kuwait".

[<https://www.who.int/goe/policies/countries/kwt/en/>]. Accessed February 21 2021.

[2] Ministry of Health and Department of Information Systems. 2013. "IT Vision and Applications - 2013".

[https://www.who.int/goe/policies/countries/kwt_ehealth.pdf?ua=1]. Accessed February 21 2021.

[3] Ministry of Health. "Information Systems Training Program". [https://www.moh.gov.kw/en/Departments/5/5-14/IT_Training]. Accessed February 21 2021.

[4] Ministry of Health. 2019. "Training Plan for (January - May) 2019. [<https://www.moh.gov.kw/media/fc062db1-e051-4fd4-bcd0-e8e95c5d9224/-1589266006/Training/Jan2019.pdf>]. Accessed February 21 2021.

[5] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [<https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11-eng.pdf?sequence=1&isAllowed=y>]. Accessed February 21 2021.

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

2.4.2a

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

Yes = 1 , No = 0

Current Year Score: 0

There is insufficient public evidence of established mechanisms at the relevant ministries responsible for animal, human and wildlife surveillance to share data.

The Joint External Evaluation (JEE) assessment of Kuwait, published in May 2017, reports that Kuwait has surveillance systems in place for priority communicable diseases and syndromes with weekly reporting systems in place and monthly and annual summaries produced. The JEE also notes that Kuwait's surveillance system is still paper-based and needs to be further integrated. However, there have been efforts to move to an electronic notification system [1].

The JEE also states that laboratory and veterinary reports need to be integrated into the surveillance system, suggesting that a mechanism for data sharing between the Public Authority of Agriculture Affairs and the Ministry of Health have not yet

been standardized. However, the JEE also mentions that syndromic surveillance systems are in place with clear standard operating procedures, and have given this indicator (indicator D.2.4) a score of 4 out of 5 [1].

As for the JEE's "Zoonotic Diseases" section, it states that "the coordination mechanisms between human and animal health authorities are established under the High committee for zoonoses. Kuwait has no formal policy for One Health. Kuwait has successfully dealt with MERS-CoV and glanders outbreaks. Sharing of information among different sectors, however, is not automatic and is based on good will and there are no written standard operating procedures (SOPs) or national plan. Human health and veterinary sectors do not have a common reporting system. Veterinary laboratories and human health laboratories are not linked and don't share common reports except for Middle East Respiratory Syndrome (MERS-CoV) for which samples have been shared between the two laboratories. The public health and animal health surveillance systems are not linked. With the exception of MERS-CoV and Brucella there are no interagency response teams for investigation of suspected outbreaks of zoonotic diseases"[1]. Therefore, the JEE presents insufficient evidence to indicate that there are established mechanisms at the relevant ministries responsible for animal, human and wildlife surveillance to share data.

A review of online sources has not provided evidence of established mechanisms at the relevant ministries responsible for animal, human, and wildlife surveillance to share data; and no further information was found on the MoH website (including the infection prevention and control directorate), the Public Authority of Agriculture Affairs and Fish Resources website, or the Environment Public Authority website [2, 3, 4, 5, 6].

[1] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [<https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11-eng.pdf?sequence=1&isAllowed=y>]. Accessed February 21 2021.

[2] Ministry of Health. [<https://www.moh.gov.kw/>]. Accessed February 21 2021.

[3] Ministry of Health Infection Control Directorate. "Process Surveillance". [http://www.icdkwt.com/surveillance_process.php]. Accessed February 21 2021.

[4] Ministry of Health Infection Control Directorate. "Outcome Surveillance". [http://www.icdkwt.com/surveillance_outcome.php]. Accessed February 21 2021.

[5] Public Authority of Agriculture Affairs and Fish Resources. [<http://website.paaf.gov.kw/>]. Accessed February 21 2021.

[6] Environment Public Authority. [<https://eservices.epa.org.kw/index.php?&language=e>]. Accessed February 21 2021.

2.4.3 Transparency of surveillance data

2.4.3a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that Kuwait makes de-identified health surveillance data on disease outbreaks publicly available on government websites.

The Ministry of Health's Infection Control Directorate contains a section on surveillance for both 'outcome' and 'process' surveillance. While this appears to be limited to healthcare-associated infections, there is no evidence that this data is made publicly available [1, 2].

The Joint External Evaluation (JEE) assessment of Kuwait, published in May 2017, reports that Kuwait has surveillance systems in place for priority communicable diseases and syndromes with weekly reporting systems in place and monthly and annual summaries produced. However, these do not appear to be publicly available. The JEE also notes that Kuwait's surveillance system is still paper-based, however, there have been efforts to move to an electronic notification system [3].

A review of online sources including the Ministry of Health and the Public Authority of Agriculture Affairs and Fish Resources website has not provided any further evidence of de-identified health surveillance data on disease outbreaks made publicly available [4, 5].

[1] Ministry of Health Infection Control Directorate. "Process Surveillance".

[http://www.icdkwt.com/surveillance_process.php]. Accessed February 21 2021.

[2] Ministry of Health Infection Control Directorate. "Outcome Surveillance".

[http://www.icdkwt.com/surveillance_outcome.php]. Accessed February 21 2021.

[3] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [<https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11-eng.pdf?sequence=1&isAllowed=y>]. Accessed February 21 2021.

[4] Ministry of Health. [<https://www.moh.gov.kw/>]. Accessed February 21 2021.

[5] Public Authority of Agriculture Affairs and Fish Resources. [<http://website.paaf.gov.kw/>]. Accessed February 21 2021.

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 publicly available evidence to indicate that Kuwait makes de-identified COVID-19 surveillance data (including details such as daily case count, mortality rate, etc) available via daily reports.

The Ministry of Health (MoH) has two active twitter accounts, one is a general account, while the other is the MoH news account [1, 2]. On the evening of March 2, 2021, the Ministry of Health released the daily COVID-19 surveillance data for March 2, 2021. The report shared a variety of statistics, such as Total New Tests, Total New Cases, Total New Deaths, Total New Recoveries, % of Daily New Cases/New Tests, % of Recoveries, Total Serious Cases, Total Active Cases [3].

[1] Twitter. "Kuwait Ministry of Health (@KUWAIT_MOH)". [https://twitter.com/KUWAIT_MOH]. Accessed February 28 2021.

[2] Twitter. "Kuwait Ministry of Health News (@KuwaitMOHNews)". [<https://twitter.com/KuwaitMOHNews>]. Accessed February 28 2021.

[3] Twitter. March 2, 2021. "Kuwait Ministry of Health (@KUWAIT_MOH): Daily Report".

[https://twitter.com/KUWAIT_MOH/status/1366794163103166472?s=20]/https://twitter.com/KUWAIT_MOH/status/1366794163103166472?s=. Accessed February 28 2021.

2.4.4 Ethical considerations during surveillance

2.4.4a

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

Yes = 1 , No = 0

Current Year Score: 1

Kuwait does have laws, regulations or guidelines that safeguard the confidentiality of identifiable health information for individuals that is generated through surveillance activities.

Article 6 of law number 25 of 1981 on the practice of medicine and dentistry states that "a doctor shall not disclose a secret that was identified during his / her job by himself or disclosed to him by the patient" [1].

Article 10 of the Insurance Law for Retired Kuwaitis (Law number 114) of 2014, states that "files of insured and all related information are confidential and may not be disclosed to third parties" [2].

Additionally, section 7 of the Electronic Transactions Law of 2014 relates to data protection; article 32 states that other than under legally authorized circumstances, it is not permissible for government bodies, companies or non-governmental entities or their employees to freely view, disclose or publish any personal data recorded in electronic records or electronic systems, and this includes the health status of individuals. Article 35 further adds that governmental bodies, companies or non-governmental entities and their employees are prohibited from illegally collecting and processing personal data through illegal means, or without an individual's consent. It is also impermissible to use the data for purposes other than that for which it was collected [3].

Article 3 of Kuwait's Law number 63 of 2015 on combatting cyber crimes also states that gaining illegal entry into an information site or electronic data-processing system in order to access, modify, destroy or disclose confidential data, including data related to medical examinations, medical diagnosis, medical treatment or medical care, is punishable through prison sentences for a period not exceeding three years, and fined between 3,000 Kuwaiti dinars and 10,000 Kuwaiti dinars (USD 9,913 to 33,045 as of February 21, 2021) [4]. Note that the Law number 63 of 2015 has been enacted and came into force on January 12, 2016 [5].

[1] Government of Kuwait. 1981. "Law No. 25 of 1981 on the Practice of Human Medicine, Dentistry and Associated Professions". [<http://www.gcc-legal.org/LawAsPDF.aspx?opt&country=1&LawID=3373>]. Accessed February 21 2021.

[2] Government of Kuwait. 2014. "Law No. 114 of 2014 on Health Insurance for Retired Citizens (114/2014)". [<http://www.gcc-legal.org/LawAsPDF.aspx?opt&country=1&LawID=4141>]. Accessed February 21 2021.

[3] Government of Kuwait. 2014. "Law No. 20 of 2014 Concerning Electronic Transactions (20/2014)". [<http://www.gcc-legal.org/LawAsPDF.aspx?country=1&LawID=4094>]. Accessed February 21 2021.

[4] Government of Kuwait. 2015. "Law No. 63 of 2015 on Combatting Cyber Crimes". [<https://www.e.gov.kw/sites/kgoenglish/Forms/CAITLawNo.63of2015oncombatingInformationTechnologyCrimes.pdf>]. Accessed February 21 2021.

[5] Article 19. January 21, 2016. "Kuwait New Cyber Crimes Law Restricts Expression And Targets Online Activists". [<https://www.article19.org/resources/kuwait-new-cyber-crimes-law-restricts-expression-and-targets-online-activists/>]. Accessed February 21 2021.

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 insufficient publicly available evidence that Kuwait's 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.

Neither law number 25 of 1981 on the practice of medicine and dentistry, the electronic transactions law of 2014, or Kuwait's Law number 63 of 2015 on combatting cybercrimes include regulations safeguarding the confidentiality of identifiable health information from cyberattacks [1, 2, 3].

According to the Council of Europe, in 2017, the government of Kuwait issued its first National Cyber Security Strategy (2017-2020). It set out "three main objectives: 1) promote a culture of cyber security that supports safe and proper usage of cyberspace; 2) safeguard and continuously maintain the security of national assets, including critical infrastructure, national data, communication technologies and internet in the State of Kuwait; and 3) promote the cooperation, coordination and information exchange among local and international bodies in the field of cyber security". Within Objective Two, the "government intends to 'develop legislation for laws of cybercrime (...) to keep pace with technological evolution' with the collaboration of several government departments. The Communication and Information Technology Regulatory Authority of Kuwait (CITRA) will take the lead to 'develop national capabilities in different cyber security domains such as the fight against cybercrime'"[4,5].

The plan establishes a "Security Operation Center (SOC) in the vital sectors of the state of Kuwait to provide a continuous monitoring of cyber security events, and develop the proper means of response". It also mentions the roles of providing "continuous monitoring mechanisms for the critical national infrastructures and information", as well as providing business continuity plans, maintaining national cybersecurity laws, monitoring compliance, and developing "national capabilities in different cyber security domains such as the fight against cybercrime, implementation and monitoring of policies and regulations, and emergency response"[4]. While there is insufficient evidence to prove that the Security Operation Center (SOC) has been implemented, Kuwait's Communication and Information Technology Regulatory Authority of Kuwait (CITRA) is clearly an established agency, and is currently in the process of implementing the national plan. According to an article by the Middle East Business Intelligence (MEED) in 2018, "CITRA is implementing the strategy (National Cyber Security Strategy 2017-2020) in close cooperation with Kuwait's Defence, Interior and Electricity and Water ministries, as well as Kuwait's oil companies"[6]. Therefore, the evidence is insufficient to prove that legislation 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).

A review of the Ministry of Health's webpage has not yielded any further evidence in this regard [7].

[1] Government of Kuwait. 1981. "Law No. 25 of 1981 on the Practice of Human Medicine, Dentistry and Associated Professions". [<http://www.gcc-legal.org/LawAsPDF.aspx?opt&country=1&LawID=3373>]. Accessed February 22 2021.

[2] Government of Kuwait. 2014. "Law No. 20 of 2014 Concerning Electronic Transactions (20/2014)". [<http://www.gcc-legal.org/LawAsPDF.aspx?country=1&LawID=4094>]. Accessed February 22 2021.

[3] Government of Kuwait. 2015. "Law No. 63 of 2015 on Combatting Cyber Crimes". [<https://www.e.gov.kw/sites/kgenglish/Forms/CAITLawNo.63of2015oncombattingInformationTechnologyCrimes.pdf>]. Accessed February 22 2021.

[4] Government of Kuwait. 2017. "National Cyber Security Strategy 2017-2020". [<https://citra.gov.kw/sites/en/LegalReferences/English%20Cyber%20Security%20Strategy.pdf>]. Accessed February 22 2021.

[5] Communication and Information Technology Regulatory Authority of Kuwait (CITRA).

[<https://citra.gov.kw/sites/en/Pages/Search.aspx#k=cybercrime>]. Accessed February 22 2021.

[6] Jennifer Aguinaldo. September 2018. "Kuwait and the US Sign Cybersecurity Agreement". Middle East Business Intelligence. [<https://www.meed.com/kuwait-us-sign-cybersecurity-cooperation-deal/>]. Accessed February 22 2021.

[7] Ministry of Health. [<https://www.moh.gov.kw/>]. Accessed February 22 2021.

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.

The Joint External Evaluation (JEE) assessment of Kuwait, published in May 2017, does not provide sufficient 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 [1]. In its "IHR coordination, communication and advocacy" section, the JEE states that "Kuwait complies with International Health Regulations (IHR) notification mechanisms to World Health Organization (WHO), World Organisation for Animal Health (OIE) and Food and Agriculture Organization of the United Nations (FAO), sharing information on public health events with international concern in a timely manner". In its Zoonotic Diseases section, the JEE mentions that "Information sharing related to zoonotic events or foodborne diseases from the IHR National Focal Point (NFP) to OIE and International Food Safety Authorities Network (INFOSAN) focal points is in place. However, it's neither based on written protocols nor supported by an IT platform for the timely sharing of information. The National Technical committee for Coronavirus was established in 2013 but unfortunately the pathway and channel of reporting to the NFP and WHO is not mentioned in its terms of reference".

The website of the Ministry of Health does not provide information that shows that the government has made a commitment via public statements, legislation, and/or a cooperative agreement to share surveillance data during a public health emergency with other countries in the region [2]. The website of the Ministry of Health Infection Control Directorate 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 [3]. An online search does not provide any additional evidence of 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.

[1] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [<https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11-eng.pdf?sequence=1&isAllowed=y>]. Accessed February 22 2021.

[2] Ministry of Health. [<https://www.moh.gov.kw/>]. Accessed February 22 2021.

[3] Ministry of Health Infection Control Directorate. "Process Surveillance".

[http://www.icdkwt.com/surveillance_process.php]. Accessed February 22 2021.

2.5 CASE-BASED INVESTIGATION

2.5.1 Case investigation and contact tracing

2.5.1a

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

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

Current Year Score: 0

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

The Joint External Evaluation (JEE) assessment of Kuwait, published in May 2017, does not bring specific reference to provision of 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 [1]. It recommends that the "Emergency Operation Center (EOC) scaled levels of response should be documented in plans describing the resource requirements for each level and procedures for acquiring additional resources". Further, it states that "emergency medical personnel and resources have been activated on a large scale through at least two simulations over the past year"[1].

Moreover, the JEE mentions that "Large-scale multi-sectoral exercises are routinely held across sectors within Kuwait, for example the Shamil 3 multi-series exercise performed once a year. Joint drills and exercises are also regularly conducted involving health and security personnel covering varied scenarios, (e.g. a terrorist event at the Avenues Mall, and an emergency evacuation of a petroleum company) with the frequency of circa 40 times a year. A table-top exercise is first performed with all stakeholders followed by an actual drill or simulation to practically test roles and responsibilities; lessons learned are widely circulated, and follow-up capacity building is offered. Furthermore, Public Health and Security Forces collaborate in the event of either communicable or zoonotic disease, and there are formal procedures for applying both animal and human quarantine. In addition, for potential events of both public health and security significance there are procedures in place to conduct a joint risk assessment amongst sectors. Protocols are additionally in place to liaise with security personnel at Points of Entry (PoE) in Kuwait in the case of a public health event at the border or air/seaport"[1]. While certain procedures are in place, this is insufficient evidence of 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.

The website of the Ministry of Health does not provide information that shows that the government has 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 [2].

The website of the Ministry of Health Infection Control Directorate does not provide information that shows that the government has 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 [3].

Note that Kuwait in 2020 introduced a contact tracing application, as did other countries in the Gulf region, but there is no evidence of support being extended to sub-national units as part of the use of this app. [4].

[1] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [<https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11-eng.pdf?sequence=1&isAllowed=y>]. Accessed February 22 2021.

[2] Ministry of Health. [<https://www.moh.gov.kw/>]. Accessed February 22 2021.

[3] Ministry of Health Infection Control Directorate. "Process Surveillance". [http://www.icdkwt.com/surveillance_process.php]. Accessed February 22 2021.

[4] BBC. June 16, 2020. "Coronavirus: Alarm over 'invasive' Kuwait and Bahrain contact-tracing apps". [<https://www.bbc.com/news/world-middle-east-53052395>]. Accessed February 22 2021.

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 Kuwait 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. The Ministry of Health (MoH) has two active twitter accounts, one is a general account, while the other is the MoH news account [1, 2]. Both accounts do not provide information that suggests that Kuwait 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. The Ministry of Health, as well as the Joint External Evaluation (JEE) assessment of Kuwait, published in May 2017, do not provide information that shows that Kuwait 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 [3, 4]. Additionally, the Ministry of Social Affairs does not provide information to indicate that Kuwait 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 [5]. Upon reviewing the Ministry of Social Affairs' Twitter posts since the start of the Covid-19 pandemic, there is no evidence of 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. A Twitter post on April 29, 2020, stated that the Ministry of Health workforce- including doctors, nurses, pharmacists, lab technicians, medical engineers and assistants- are all exempt from any restrictions when accessing supermarkets and cooperatives [6]. This was one of only a handful of posts that were directly related to the pandemic.

As for the state of insurance in Kuwait, according to an April 2020 article by the Middle East Insurance Review, the insurance sector in Kuwait has been hit hard by Covid-19. The article mentions that "Mr Nasser Al-Omar, CEO and deputy chairman of Gulf Takaful Insurance, says that the insurance sector is currently suffering from the lack of new business in light of the interruption of both government and private projects as well as a decline in collections"[7]. However, it adds that the "coronavirus pandemic will not have a direct impact on claims, especially as insurers exclude pandemic coverage. Echoing this view, Mr Al-Mansour rules out the idea that insurance companies should bear significant compensation for the pandemic, arguing that it is a force majeure that insurance may not cover"[7]. Thus insurance companies are not liable for damage done due to the pandemic.

According to three articles tackling the Kuwait Covid-19 Labour Law update of 2020, there is no evidence that Kuwait 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 [8, 9, 10].

[1] Twitter. "Kuwait Ministry of Health (@KUWAIT_MOH)". [https://twitter.com/KUWAIT_MOH]. Accessed February 28 2021.

[2] Twitter. "Kuwait Ministry of Health News (@KuwaitMOHNews)". [https://twitter.com/KuwaitMOHNews]. Accessed February 28 2021.

[3] Ministry of Health Infection Control Directorate. [http://www.icdkt.com/]. Accessed February 28 2021.

[4] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11-eng.pdf?sequence=1&isAllowed=y]. Accessed February 28 2021.

[5] Ministry of Social Affairs. [https://mosa.gov.kw/webcenter/portal/extranet]. Accessed February 28 2021.

[6] Twitter. April 29, 2020. "Ministry of Social Affairs". [https://twitter.com/mosa1_kw/status/1255567179652554752]. Accessed February 28 2021.

[7] Middle East Insurance Review. April 16, 2020. "Kuwait:Insurance companies' liquidity affected by COVID-19". [https://www.meinsurancereview.com/News/View-News-Letter-Article?id=61240&Type=MiddleEast]. Accessed February 28 2021.

[8] Al Tamimi & Co. March 17, 2020. "Kuwait COVID-19 Labour Law Update". [https://www.tamimi.com/news/kuwait-covid-19-labour-law-update/]. Accessed February 28 2021.

[9] World Gulf. May 11, 2020. "Expert spells out changes in Kuwait labour Law prompted by COVID-19". [https://gulfnews.com/world/gulf/kuwait/expert-spells-out-changes-in-kuwait-labour-law-prompted-by-covid-19-1.71425876]. Accessed February 28 2021.

[10] Gulf Business. August 9, 2020. "Kuwaiti MPs reject draft law allowing private sector firms to cut salaries by up to 50%". [https://gulfbusiness.com/kuwaiti-mps-reject-draft-law-allowing-private-sector-firms-to-cut-salaries-by-up-to-50/]. Accessed February 28 2021.

2.5.1c

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available information that shows that Kuwait makes de-identified data on contact tracing efforts for COVID-19 (including the percentage of new cases from identified contacts) available via daily reports (or other format) on government websites (such as the Ministry of Health, or similar).

The Ministry of Health (MoH) releases daily updates online through Twitter. It has two active twitter accounts, one is a general account, while the other is the MoH news account [1, 2]. For instance, on the evening of March 2, 2021, the Ministry of Health released the daily COVID-19 surveillance data for March 2, 2021. The report shared a variety of statistics, such as Total New Tests, Total New Cases, Total New Deaths, Total New Recoveries, % of Daily New Cases/New Tests, % of Recoveries, Total Serious Cases, Total Active Cases [3]. This is the only range of data being updated daily, and no mention of contact-tracing is being made.

[1] Twitter. "Kuwait Ministry of Health (@KUWAIT_MOH)". [https://twitter.com/KUWAIT_MOH]. Accessed February 28 2021.

[2] Twitter. "Kuwait Ministry of Health News (@KuwaitMOHNews)". [https://twitter.com/KuwaitMOHNews]. Accessed February 28 2021.

[3] Twitter. March 2, 2021. "Kuwait Ministry of Health (@KUWAIT_MOH): Daily Report".

[https://twitter.com/KUWAIT_MOH/status/1366794163103166472?s=20]/twitter.com/KUWAIT_MOH/status/1366794163103166472?s=. Accessed February 28 2021.

2.5.2 Point of entry management

2.5.2a

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

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

Current Year Score: 0

There is no evidence of 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.

According to the Ministry of Interior and the Ministry of Health Infection Control Directorate, there is no evidence of 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 [1, 2].

The Ministry of Health (MoH) has two active twitter accounts, one is a general account, while the other is the MoH news account [3, 4]. Both accounts do not provide information about 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.

Note that Kuwait in 2020 introduced a contact tracing application, as did other countries in the Gulf region, to support contact-tracing efforts [5].

The website of the Ministry of Defence seems to be discontinued and provides an archived webpage from year 2013; no information is provided to suggest that Kuwait has a joint plan or cooperative agreement between the public health system and border control authorities to identify suspected and potential cases in international travelers and trace and quarantine their contacts in the event of a public health emergency [6].

[1] Ministry of Interior. [<https://www.moi.gov.kw/portal/varabic/>]. Accessed February 28 2021

[2] Ministry of Health Infection Control Directorate. [<http://www.icdkt.com/>]. Accessed February 28 2021.

[3] Twitter. "Kuwait Ministry of Health (@KUWAIT_MOH)". [https://twitter.com/KUWAIT_MOH]. Accessed February 28 2021.

[4] Twitter. "Kuwait Ministry of Health News (@KuwaitMOHNews)". [<https://twitter.com/KuwaitMOHNews>]. Accessed February 28 2021.

[5] BBC. June 16, 2020. "Coronavirus: Alarm over 'invasive' Kuwait and Bahrain contact-tracing apps". [<https://www.bbc.com/news/world-middle-east-53052395>]. Accessed February 28 2021.

[6] Ministry of Defence. [www.mod.gov.kw]. Accessed February 28 2021.

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 publicly available evidence that Kuwait has an applied epidemiology training program available in the country.

According to Kuwait's Joint External Evaluation (JEE) assessment, published in May 2017, there are "few local FETP / applied epidemiology graduates" however there is no indication of where these graduates underwent their training. The JEE also recommends rolling out a full FETP training course for public health workers (physicians and non-physicians), indicating such a training program is not currently in place [1].

It is unclear whether the government of Kuwait provides resources to send citizens to another country to participate in applied epidemiology training programs. The JEE notes that the government of Kuwait has long invested in education and staff development, and points out that the entire human resources system of Kuwait's public healthcare system is financed by the government and that there are masters and Ph.D. epidemiology graduates. However, the JEE also recommends establishing cross-border training opportunities, suggesting these too may not yet be in place [1].

A review of online sources including the Ministry of Health, Ministry of Higher Education websites has not yielded any further information [2, 3]. The website of the Task Force for Global Health (TEPHINET) does not include Kuwait as a member, nor provides information that shows that Kuwait provides applied epidemiology training programs [4]. The Eastern Mediterranean Public Health Network (EMPHNET) website states that Kuwait is not in the list of countries in the region that have an FETP program [5].

[1] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [<https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11-eng.pdf?sequence=1&isAllowed=y>]. Accessed February 22 2021.

[2] Ministry of Health. [<https://www.moh.gov.kw/>]. Accessed February 22 2021.

[3] Ministry of Higher Education. [<https://www.mohe.edu.kw/site/>]. Accessed February 22 2021.

[4] Training Programs in Epidemiology and Public Health Interventions Network (TEPHINET). "Training Programs". [<https://www.tephinet.org/training-programs>]. Accessed February 22 2021.

[5] The Eastern Mediterranean Public Health Network (EMPHNET). "About Us". [<http://emphnet.net/en/about-us/>]. Accessed February 22 2021.

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 public evidence that Kuwait has field epidemiology training programs explicitly inclusive of animal health professionals or that there is a specific animal health field epidemiology training program offered (such as the FETPV).

According to Kuwait's Joint External Evaluation (JEE) assessment, published in May 2017, more opportunities are needed to train staff in public health, including those working in veterinarians. The JEE notes that animal health experts and veterinarians from the public sector are trained on the job for field epidemiology within the country, however, it also recommends that animal health experts and veterinarians undergo FETP trainings or related trainings [1].

There is evidence that that Public Authority of Agriculture Affairs and Fish Resources (PAAF) provides some training courses, however these do not seem to be specific to the field of epidemiology and are more general courses on animal breeding [2].

A review of online sources including the Ministry of Health, Ministry of Higher Education, and PAAF websites has not yielded any further evidence [3, 4, 5]. The website of the Task Force for Global Health (TEPHINET) does not include Kuwait as a member, nor provides information that shows that Kuwait provides applied epidemiology training programmes [6]. The Eastern Mediterranean Public Health Network (EMPHNET) website states that Kuwait is not in the list of countries in the region that have an FETP programme [7].

[1] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [<https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11-eng.pdf?sequence=1&isAllowed=y>]. Accessed February 22 2021.

[2] Public Authority of Agriculture Affairs and Fish Resources. "Home Garden Course". [<http://website.paaf.gov.kw/paaf/ershada/courses.jsp>]. Accessed February 22 2021.

[3] Ministry of Health. [<https://www.moh.gov.kw/>]. Accessed February 22 2021.

[4] Ministry of Higher Education. [<https://www.mohe.edu.kw/site/>]. Accessed February 22 2021.

[5] Public Authority of Agriculture Affairs and Fish Resources. [<http://www.paaf.gov.kw/>]. Accessed February 22 2021.

[6] Training Programs in Epidemiology and Public Health Interventions Network (TEPHINET). "Training Programs". [<https://www.tephinet.org/training-programs>]. Accessed February 22 2021.

[7] The Eastern Mediterranean Public Health Network (EMPHNET). "About Us". [<http://emphnet.net/en/about-us/>]. Accessed February 22 2021.

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 to indicate that Kuwait has a national public health emergency response plan in place which addresses planning for multiple communicable diseases with pandemic potential, but it is not publicly available.

According to Kuwait's Joint External Evaluation (JEE) report, published in May 2017, Kuwait has robust multi-hazard preparedness and response capabilities. Kuwait's National Emergency Preparedness and Response Plan is reportedly regularly tested and evaluated on a regular basis. A multi-sectoral collaborative approach is adopted to identify priority public health risks and map resources to mitigate these risks for an effective emergency response plan, which the JEE gave a score of 5 out of 5 indicating a high level of functional capacity [1, 2]. While the JEE does not explicitly mention which diseases are covered by this plan, it does report that there are 14 established emergency contingency plans involving diverse hazards and health consequences, and the Ministry of Health is represented in all health-related emergencies [1].

The plan does not appear to be publicly available online. Furthermore, according to a report published in 2016 by the Government of Kuwait for a Convention on Nuclear Safety meeting, pursuant to the Council of Ministers Decision 897/1997, the Emergency Committee of the Civil Defense is the highest authority during emergency outbreaks and has the power to activate the emergency response plan to an accident on a nation-wide level [3].

A review of online web sources including the General Civil Defence Department, the Ministry of Interior and the Ministry of Health websites has not provided any further evidence [4, 5, 6].

[1] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [<https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11-eng.pdf?sequence=1&isAllowed=y>]. Accessed February 22 2021.

[2] World Health Organization. 2016. "Joint External Evaluation Tool ". 2016.

[http://apps.who.int/iris/bitstream/10665/204368/1/9789241510172_eng.pdf]. Accessed February 22 2021.

[3] Government of Kuwait. 2016. "Kuwait Country Report For the 7th Review Meeting of the Contracting Parties to the

Convention on Nuclear Safety CNS 27March - 7th April 2017". [[https://www-](https://www-ns.iaea.org/downloads/ni/safety_convention/7th-review-meeting/kuwait_nr-7th-rm.pdf)

ns.iaea.org/downloads/ni/safety_convention/7th-review-meeting/kuwait_nr-7th-rm.pdf]. Accessed February 22 2021.

[4] General Department of Civil Defence. [<https://www.moi.gov.kw/civildefense/index.aspx>]. Accessed February 22 2021.

[5] Ministry of Interior. [<https://www.moi.gov.kw/portal/varabic/>]. Accessed February 22 2021.

[6] Ministry of Health. [<https://www.moh.gov.kw/>]. Accessed February 22 2021.

3.1.1b

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

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

Current Year Score: 0

There is insufficient evidence to suggest that Kuwait's national public health emergency response plan has been updated in the last 3 years.

It is unclear when exactly the plan was put in place or what the specificities of the plan are, however, according to Kuwait's Joint External Evaluation (JEE) report, published in May 2017, the national emergency response plan is regularly updated and was given a score of 5 out of 5 for indicator R.1.1 (national multi-hazard public health emergency preparedness and response plan developed and implemented). The JEE also notes that public health risks and resources are assessed and mapped for IHR-relevant hazards and are updated at various levels according to a monthly to yearly review cycle. Additionally, simulation exercise testing response and preparedness capabilities are periodically carried out and updated accordingly, further suggesting that Kuwait's public health emergency response plan has likely been updated over the past three years [1].

However, the plan does not appear to be publicly available online, and it is, therefore, unclear whether this plan covers multiple communicable diseases with pandemic potential. Furthermore, according to both the JEE and a report published in 2016 by the Government of Kuwait for a Convention on Nuclear Safety meeting, pursuant to the Council of Ministers Decision 897/1997, the Emergency Committee of the Civil Defense is the highest authority during emergency outbreaks and has the power to activate the emergency response plan to any accident on a nation-wide level [1, 2].

A review of online web sources including the General Civil Defence Department, the Ministry of Interior and the Ministry of Health webpages has not provided any further evidence [3, 4, 5].

[1] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [<https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11-eng.pdf?sequence=1&isAllowed=y>]. Accessed February 22 2021.

[2] Government of Kuwait. 2016. "Kuwait Country Report For the 7th Review Meeting of the Contracting Parties to the Convention on Nuclear Safety CNS 27March - 7th April 2017". [https://www-ns.iaea.org/downloads/ni/safety_convention/7th-review-meeting/kuwait_nr-7th-rm.pdf]. Accessed February 22 2021.

[3] General Department of Civil Defence. [<https://www.moi.gov.kw/civildefense/index.aspx>]. Accessed February 22 2021.

[4] Ministry of Interior. [<https://www.moi.gov.kw/portal/varabic/>]. Accessed February 22 2021.

[5] Ministry of Health. [<https://www.moh.gov.kw/>]. Accessed February 22 2021.

3.1.1c

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

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

Current Year Score: 0

There is insufficient publicly available evidence to indicate whether Kuwait's national public health emergency response plan includes considerations for pediatric and other vulnerable populations.

While the Joint External Evaluation (JEE) assessment of Kuwait, published in May 2017, cites the existence of the plan, the specifics of the plan are not publicly available [1]. However, the Ministry of Interior's General Civil Defence Department has a publication on the safe evacuation of schools (although this is not particular to health emergencies) which includes protocols and safety procedures for school children [2]. Other publicly available documents on the General Civil Defence Department webpage, including 'Preventive Measures in Case of a Potential Attack Using Chemical Weapons' guidelines and the 'Rescue Operations During Disasters and Accidents' guidelines make no mention of vulnerable populations including children [3, 4].

A review of online sources, including the Ministry of Interior and the Ministry of Health websites has not provided any further evidence in this regard [5, 6].

[1] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [<https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11-eng.pdf?sequence=1&isAllowed=y>]. Accessed February 22 2021.

[2] Ministry of Interior - General Civil Defence Department. "Safe Evacuation of Schools Manual". [<https://www.moi.gov.kw/civildefense/PDF/madares%20english.pdf>]. Accessed February 22 2021.

[3] Ministry of Interior - General Civil Defence Department. "Preventive Measures In Case of a Potential Attack Using Chemical Weapons". [<https://www.moi.gov.kw/civildefense/PDF/indicative%20evidence%20for%20the%20prevention%20of%20chemical%20attack%20and%20weapons%20of%20mass%20destruction%20english.pdf>]. Accessed February 22 2021.

[4] Ministry of Interior - General Civil Defence Department. "Rescue Operations During Disasters and Accidents". [<https://www.moi.gov.kw/civildefense/PDF/rescue%20operations%20in%20disasters%20and%20accidents%20english.pdf>]. Accessed February 22 2021.

[5] Ministry of Interior. [<https://www.moi.gov.kw/portal/varabic/>]. Accessed February 22 2021.

[6] Ministry of Health. [<https://www.moh.gov.kw/>]. Accessed February 22 2021.

3.1.1d

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

Yes = 1 , No = 0

Current Year Score: 0

2020

WHO Strategic Partnership for IHR and Health Security (SPH)

3.1.2 Private sector involvement in response planning

3.1.2a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that Kuwait has a specific mechanism for engaging with the private sector to assist with outbreak emergency preparedness and response.

The Joint External Evaluation (JEE) of Kuwait, published in May 2017, suggests that private sector engagement during health emergencies is relatively weak, as it notes that the role of the private sector during emergencies should be more clearly defined and the required resources and training should be provided to guarantee their effective and efficient engagement [1]. The JEE also recommends more actively involving the private sector in emergency risk communication and emergency risk communication exercises. However, the JEE does note that there are procedures in place to transfer ill passengers to both private and government hospitals. More generally, the JEE mentions that "the role of the private sector is included within legislation and the Public Health Directorate is in charge of all health care facilities in Kuwait and all the guidelines mention the role of the private sector" [1].

According to an article posted in Global Health Insights in 2017, Kuwaiti hospitals don't have the capacity to respond to mass emergencies, which was made apparent following the bombing in a mosque in Kuwait City in 2015, a factor which the article notes is being compensated by increasing private sector investment to expand Kuwait's healthcare sector [2]. According to another article posted by Arab Health in 2017, the government has been launching several large healthcare projects and the Kuwait Healthcare Authority is expected to increase investments into the private healthcare sector, which is expected to grow by 15-20% in coming years, in order to improve the overall healthcare quality in the country [3]. This likely suggests that some coordination with the private sector exists in responding to emergency outbreaks. However, the extent of it and the mechanisms through which this takes place are unclear. A review of online sources including the Ministry of Interior and the Ministry of Health websites has not provided any further evidence [4, 5].

[1] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [<https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11-eng.pdf?sequence=1&isAllowed=y>]. Accessed February 22 2021.

[2] Global Health Insights. 14th March 2017. "Kuwait Hospitals Are Closing Gaps in Quality and Capacity". [<https://globalhealthi.com/2017/03/14/kuwait-healthcare-system/>]. Accessed February 22 2021.

[3] Arab Health. 2017. "Healthcare Infrastructure in Kuwait: On Solid Footing". [<https://www.arabhealthonline.com/magazine/en/latest-issue/Issue-6/Healthcare-Infrastructure-in-Kuwait-On-Solid-Footing.html>]. Accessed February 22 2021.

[4] Ministry of Interior. [<https://www.moi.gov.kw/portal/varabic/>]. Accessed February 22 2021.

[5] Ministry of Health. [<https://www.moh.gov.kw/>]. Accessed February 22 2021.

3.1.3 Non-pharmaceutical interventions planning

3.1.3a

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

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

Current Year Score: 1

There is evidence that Kuwait has a policy, plan or guidelines in place to implement non-pharmaceutical interventions (NPIs) during an epidemic or pandemic. However, plan and/or guidelines exist only for one disease (covid-19).

The Joint External Evaluation (JEE) of Kuwait, published in May 2017, does not mention anything about Non-Pharmaceutical Interventions (NPIs) [1].

The Ministry of Health (MOH) and the Infection Control Directorate websites do not provide information that shows that Kuwait has a policy, plan and/or guidelines in place to implement non-pharmaceutical interventions (NPIs) during an epidemic or pandemic [2, 3].

According to the Multidisciplinary Digital Publishing Institute's 2020 "Forecasting the Spread of COVID-19 in Kuwait Using Compartmental and Logistic Regression Models" study, that was published in the aftermath of the COVID-19 pandemic, "the different actions taken by the Kuwait Government are considered as non-pharmaceutical intervention measures that are expected to reduce the spread of COVID-19 cases". [4] Kuwait adopted a set of Non-Pharmaceutical Interventions (NPIs). On February 26, 2020, the Kuwaiti Government suspended "studies in all public and private schools, universities and colleges, as of March 1, 2020, for a period of two weeks". On February 27, the "Civil Service Bureau decided to temporarily suspend the operation of the finger-print system in all government agencies from 1 March". On March 7, the Government suspended travel to and from a list of destinations and announced a set of quarantine measures. [4]

On March 11, the Government announced measures "preventing the presence of all restaurants and cafes, including shopping mall". On March 13, the Government announced measures "stopping the Friday sermon and congregational prayer in the mosques until further notice". There is a long list of NPIs adopted throughout the pandemic, however, there is no evidence that this was part of a policy, plan, or guidelines in place to implement non-pharmaceutical interventions (NPIs) during an epidemic or pandemic [4].

The above interventions have been communicated by the government, either through decisions by the Council of Ministers, or via a government spokesman such as Mr. Tareq Al-Mezrem [5, 6]. Note that the Joint External Evaluation (JEE) of Kuwait, published in May 2017, mentions that "a National Emergency Preparedness and Response Plan exists and is well tested and updated across sectors", and that "Nevertheless, establishment of an integral Department of Emergency Management under the MoH would improve coordination and communication. Developing a national risk profile, including an all-hazard approach, would assure Kuwait is proactively prepared for emerging threats; these risks should be further prioritized and linked securely to specific resources"[1]. Therefore, there is no emergency management agency in place in Kuwait according to the JEE report.

[1] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [<https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11-eng.pdf?sequence=1&isAllowed=y>]. Accessed February 25 2021.

[2] Ministry of Health. [<https://www.moh.gov.kw/>]. Accessed February 25 2021.

[3] Ministry of Health Infection Control Directorate. "Process Surveillance".

[http://www.icdkwt.com/surveillance_process.php]. Accessed February 25 2021.

[4] Abdullah M. Almeshal, Abdulla I. Almazrouee, Mohammad R. Alenizi and Saleh N. Alhajeri. May 14, 2020. "Forecasting the Spread of COVID-19 in Kuwait Using Compartmental and Logistic Regression Models". Multidisciplinary Digital Publishing Institute. [<https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKEWjG-bmPlIjvAhUqThUIHSpKA1EQFjACegQIAhAD&url=https%3A%2F%2Fwww.mdpi.com%2F2076-3417%2F10%2F10%2F3402%2Fpdf&usg=AOvVaw19pIOA9Q2EzMmu17CM1IK5>]. Accessed February 25 2021.

[5] Al Arabiya. February 3, 2021. "Kuwait tightens coronavirus restrictions: Closes shops, restaurants at night".

[<https://english.alarabiya.net/coronavirus/2021/02/03/Coronavirus-Kuwait-tightens-coronavirus-restrictions-Closes-all>

shops-restaurants-at-night]. Accessed February 25 2021.

[6] Arabian Business. March 15, 2020. "Kuwait closes shopping malls to curb spread of coronavirus".

[https://www.arabianbusiness.com/retail/442838-kuwait-closes-shopping-malls-to-curb-spread-of-coronavirus]. Accessed February 25 2021.

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: 0

There is no publicly available evidence that shows that Kuwait has activated a national emergency response plan for an infectious disease outbreak in the past year; additionally, there is no evidence that Kuwait has completed a national-level biological threat-focused exercise (either with WHO or separately) in the past year.

According to Kuwait's Joint External Evaluation (JEE) report, published in May 2017, Kuwait has robust multi-hazard preparedness and response capabilities. Kuwait's National Emergency Preparedness and Response Plan is reportedly regularly tested and evaluated on a regular basis. A multi-sectoral collaborative approach is adopted to identify priority public health risks and map resources to mitigate these risks for an effective emergency response plan, which the JEE gave a score of 5 out of 5 indicating a high level of functional capacity [1, 2]. While the JEE does not explicitly mention which diseases are covered by this plan, it does report that there are 14 established emergency contingency plans involving diverse hazards and health consequences, and the Ministry of Health is represented in all health-related emergencies [1]. The plan does not appear to be publicly available online. Furthermore, according to a report published in 2016 by the Government of Kuwait for a Convention on Nuclear Safety meeting, pursuant to the Council of Ministers Decision 897/1997, the Emergency Committee of the Civil Defense is the highest authority during emergency outbreaks and has the power to activate the emergency response plan to any accident on a nation-wide level [3].

A review of online web sources including the General Civil Defence Department, the Ministry of Interior, and the Ministry of Health websites has not provided any further evidence [4, 5, 6].

Further, there is no evidence that Kuwait has completed a national-level biological threat-focused exercise (either with WHO or separately) in the past year. The website of the WHO Simulation Exercise does not provide information indicating that in the past year, Kuwait had undergone a national-level biological threat-focused exercise (either with WHO or separately) [7]. It states that there is an exercise planned, however, no further information regarding the date or purpose of the exercise is provided.

The website of the Ministry of Health does not provide any additional information [6]. Both the World Health Organization (WHO) Kuwait country page, as well as the Regional Office for the Eastern Mediterranean (EMRO) do not provide any

additional information in this regard [8, 9].

[1] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [<https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11-eng.pdf?sequence=1&isAllowed=y>]. Accessed February 22 2021.

[2] World Health Organization. 2016. "Joint External Evaluation Tool ". 2016. [http://apps.who.int/iris/bitstream/10665/204368/1/9789241510172_eng.pdf]. Accessed February 22 2021.

[3] Government of Kuwait. 2016. "Kuwait Country Report For the 7th Review Meeting of the Contracting Parties to the Convention on Nuclear Safety CNS 27March - 7th April 2017". [https://www-ns.iaea.org/downloads/ni/safety_convention/7th-review-meeting/kuwait_nr-7th-rm.pdf]. Accessed February 22 2021.

[4] General Department of Civil Defence. [<https://www.moi.gov.kw/civildefense/index.aspx>]. Accessed February 22 2021.

[5] Ministry of Interior. [<https://www.moi.gov.kw/portal/varabic/>]. Accessed February 22 2021.

[6] Ministry of Health. [<https://www.moh.gov.kw/>]. Accessed February 22 2021.

[7] World Health Organisation (WHO). "Simulation Exercise". [<https://extranet.who.int/sph/simulation-exercise?region=All&country=282>]. Accessed February 22 2021.

[8] World Health Organisation (WHO) Kuwait Country Page. [<http://www.emro.who.int/countries/kuwait/index.html>]. Accessed February 22 2021.

[9] World Health Organisation (WHO) Regional Office for the Eastern Mediterranean. [<http://www.emro.who.int/index.html>]. Accessed February 22 2021.

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 public evidence that Kuwait has 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.

The WHO's Strategic Partnership Portal's list of after-action reviews does not indicate that Kuwait has ever conducted an after-action review, however, it had planned to undertake 1 such review on January 1, 2020. No further information is provided [1]. A review of the Ministry of Health, Ministry of Interior, and the WHO IHR websites also provide no evidence that Kuwait 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. [2, 3, 4].

Further, there is no evidence that Kuwait has completed a national-level biological threat-focused exercise (either with WHO or separately) in the past year. The website of the WHO Simulation Exercise does not provide information indicating that in the past year, Kuwait had undergone a national-level biological threat-focused exercise (either with WHO or separately) [5]. It states that there is an exercise planned, however, no further information regarding the date or purpose of the exercise is provided. Both the World Health Organization (WHO) Kuwait country page, as well as the Regional Office for the Eastern Mediterranean (EMRO) do not provide any additional information in this regard [6, 7].

- [1] WHO Strategic Partnership Portal. "After Action Review". [<https://extranet.who.int/sph/after-action-review>]. Accessed February 22 2021.
- [2] World Health Regulations. "International Health Regulations News". [<http://www.who.int/ihr/ihrnews/en/>]. Accessed February 22 2021.
- [3] Ministry of Health. [<https://www.moh.gov.kw/>]. Accessed February 22 2021.
- [4] Ministry of Interior. [<https://www.moi.gov.kw/portal/varabic/>]. Accessed February 22 2021.
- [5] World Health Organisation (WHO). "Simulation Exercise". [<https://extranet.who.int/sph/simulation-exercise?region=All&country=282>]. Accessed February 22 2021.
- [6] World Health Organisation (WHO) Kuwait Country Page. [<http://www.emro.who.int/countries/kuwait/index.html>]. Accessed February 22 2021.
- [7] World Health Organisation (WHO) Regional Office for the Eastern Mediterranean. [<http://www.emro.who.int/index.html>]. Accessed February 22 2021.

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 public evidence that Kuwait in the past year has undergone a national-level biological threat-focused exercise that has included private sector representatives.

The WHO's Strategic Partnership Portal's list of after action reviews does not indicate that Kuwait has ever conducted an after action review, however, it had planned to undertake 1 such review on January 1, 2020. No further information is provided [1]. A review the Ministry of Health, Ministry of Interior and the WHO IHR websites also provide no evidence that Kuwait in the past year has undergone a national-level biological threat-focused exercise that has included private sector representatives. [2, 3, 4]. The website of the WHO Simulation Exercise does not provide information indicating that Kuwait in the past year has undergone a national-level biological threat-focused exercise that has included private sector representatives [5]. It states that there is an exercise planned, however, no further information regarding date or purpose of the exercise is provided. Both the World Health Organization (WHO) Kuwait country page, as well as the Regional Office for the Eastern Mediterranean (EMRO) do not provide any additional information in this regard [6, 7].

- [1] WHO Strategic Partnership Portal. "After Action Review". [<https://extranet.who.int/sph/after-action-review>]. Accessed February 22 2021.
- [2] World Health Regulations. "International Health Regulations News". [<http://www.who.int/ihr/ihrnews/en/>]. Accessed February 22 2021.
- [3] Ministry of Health. [<https://www.moh.gov.kw/>]. Accessed February 22 2021.
- [4] Ministry of Interior. [<https://www.moi.gov.kw/portal/varabic/>]. Accessed February 22 2021.
- [5] World Health Organisation (WHO). "Simulation Exercise". [<https://extranet.who.int/sph/simulation-exercise?region=All&country=282>]. Accessed February 22 2021.
- [6] World Health Organisation (WHO) Kuwait Country Page. [<http://www.emro.who.int/countries/kuwait/index.html>]. Accessed February 22 2021.
- [7] World Health Organisation (WHO) Regional Office for the Eastern Mediterranean. [<http://www.emro.who.int/index.html>].

Accessed February 22 2021.

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: 0

There is insufficient evidence that Kuwait has an Emergency Operations Center (EOC) in place that is health related yet. According to Kuwait's Joint External Evaluation (JEE) assessment, published in May 2017, Kuwait's EOC operates at a highly functional level and is well equipped with the required infrastructure, information systems, and medical as well as non-medical equipment. The EOC focal points are available on a 24/7 basis to respond to any request for emergency medical services. Nevertheless, the JEE reports that the scope of the EOC needs to expand from operating as a medical dispatch centre, to incorporating a wide range of priority public health hazards and thus serve as a Public Health Emergency Operations Centre (PHEOC) covering all multi-sectoral public health emergencies within the country. This will require the necessary policies, plans and procedures to be formalized across a range of priority hazards, in conjunction with the relevant governmental and non-governmental partners, and introducing the necessary technical trainings for EOC staff [1]. A review of online sources including the Ministry of Health and Ministry of Interior websites has not yielded any further information in this regard [2, 3].

[1] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [<https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11-eng.pdf?sequence=1&isAllowed=y>]. Accessed February 25 2021.

[2] Ministry of Health. [<https://www.moh.gov.kw/>]. Accessed February 25 2021.

[3] Ministry of Interior. [<https://www.moi.gov.kw/portal/varabic/>]. Accessed February 25 2021.

3.3.1b

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

Yes = 1 , No = 0

Current Year Score: 0

There is insufficient publicly available evidence to suggest that Kuwait's Emergency Operations Center (EOC) is required to conduct a drill at least once per year; nor is there sufficient evidence that they conduct a drill at least once per year.

According to the Joint External Evaluation (JEE) assessment of Kuwait, published in May 2017, Kuwait has robust multi-hazard preparedness and response capabilities that are tested regularly through simulation exercises that are then evaluated to ensure EOCs and emergency response personnel can guarantee a high level of functional capacity. The JEE notes that emergency medical personnel and resources have been activated on a large scale through at least two simulations within a year of completing the JEE [1]. The Ministry of Interior's 'General Training Plan for 2018-2019' contains an exhaustive list of training courses all personnel must undergo, including strategic planning for security crises and management skills during crises (for various security sectors) and courses in operations and procedures for special security personnel. Note that the

weblink to the "General Training Plan for the Ministry of Interior 2018-2019" appears to be dysfunctional as of February 26, 2021 [2, 3]. While there is no explicit mention that drills must be conducted at least once a year, the rigid training curriculum indicates that this is likely the case. A review of the Ministry of Health website has not provided any further evidence in this regard [4].

[1] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [<https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11-eng.pdf?sequence=1&isAllowed=y>]. Accessed February 26 2021.

[2] Ministry of Interior. "General Training Plan for the Ministry of Interior 2018-2019". [<https://www.moi.gov.kw/MOITraining/index.html#7>]. Accessed February 26 2021.

[3] Ministry of Interior. 2018. "General Training Plan for the Ministry of Interior 2018-2019". [https://www.moi.gov.kw/portal/varabic/storage/other/MOITrainingPlan2018_2019.pdf]. Accessed February 26 2021.

[4] Ministry of Health. [<https://www.moh.gov.kw/>]. Accessed February 26 2021.

3.3.1c

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

Yes = 1 , No = 0

Current Year Score: 0

There is insufficient evidence to suggest that Kuwait's EOC can conduct a coordinated emergency response or emergency response exercise activated within 120 minutes of the identification of the public health emergency/scenario. According to the Joint External Evaluation (JEE) assessment of Kuwait, published in May 2017, emergency medical services and associated resources "are able to respond well in advance of 120 minutes to a range of health-related hazards" [1]. However, the JEE does not mention when the latest exercise was conducted. A review of the Ministry of Health and Ministry of Interior websites does not include any additional confirmation that exercises can be conducted within the 120-minute timeframe [2, 3].

[1] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [<https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11-eng.pdf?sequence=1&isAllowed=y>]. Accessed February 26 2021.

[2] Ministry of Health. [<https://www.moh.gov.kw/>]. Accessed February 26 2021.

[3] Ministry of Interior. [<https://www.moi.gov.kw/portal/varabic/>]. Accessed February 26 2021.

3.4 LINKING PUBLIC HEALTH AND SECURITY AUTHORITIES

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

3.4.1a

Does the country meet one of the following criteria?

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

agreements between the public health and security authorities to respond to a potential deliberate biological event (i.e., bioterrorism attack)?

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

Current Year Score: 1

There is publicly available evidence that Kuwait has guidelines, standard operating procedures and MOUs between the public health and security authorities to respond to a potential or deliberate biological event.

The JEE has given Kuwait a score of 5 out of 5 for its capacity to link public health and security officials during a confirmed or suspected biological event (indicator R.3.1), which according to the scoring criteria indicates that health and security authorities exchange reports and information on events of joint concern at national, intermediate and local levels using a formal MOU or other form of agreement, and that public health and security authorities engage in joint training programmes [2, 3]. The JEE adds that there are 14 established emergency contingency plans involving diverse hazards and health emergencies, and the Ministry of Health (MoH) is included in all of the health-related events and periodic information exchange and reporting occurs, although no specific mention is made with regards to a deliberate biological event. Furthermore, public health and security forces in Kuwait collaborate in the event of either a communicable or a zoonotic diseases outbreak, with formal procedures in place for both animal and human quarantine. Protocols are also in place to liaise with security personnel at points of entry in Kuwait in the case of a public health event at the border or air/seaport.

A review of online sources including the Ministry of Interior, the General Department of Civil Defence, and the MoH webpages did not provide any indication that these MOUs and standard operating procedures (SOPs) are publicly available [4, 5, 6]. There is insufficient publicly available evidence that Kuwait's public health and national security authorities have carried out an exercise to respond to a potential deliberate biological event. The General Department of Civil Defence is the coordinating entity in Kuwait responsible for the management of emergencies and disasters. The Department coordinates the participation of various sectors through convening multisectoral committees, and can effectively adapt the required response to include the participation of required sectors depending on the emergency [1, 2]. According to the Joint External Evaluation (JEE) assessment of Kuwait, published in May 2017, large-scale multi-sectoral exercises are routinely held across Kuwait, and around 40 joint drills and exercises are conducted annually between public health and security personnel for a range of scenarios (including terrorist events but not necessarily bioterrorism, and emergency evaluations). These simulations are followed up with evaluations of lessons learnt for improvement, which are then widely circulated to build the capacity of national response operations [2].

[1] Ministry of Interior - General Department of Civil Defence. [<https://www.moi.gov.kw/civildefense/en/index.aspx>]. Accessed February 22 2021.

[2] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [<https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11-eng.pdf?sequence=1&isAllowed=y>]. Accessed February 22 2021.

[3] World Health Organization. 2016. "Joint External Evaluation Tool ". 2016. [http://apps.who.int/iris/bitstream/10665/204368/1/9789241510172_eng.pdf]. Accessed February 22 2021.

[4] Ministry of Interior. [<https://www.moi.gov.kw/portal/varabic/>]. Accessed February 22 2021.

[5] General Department of Civil Defence. [<https://www.moi.gov.kw/civildefense/index.aspx>]. Accessed February 22 2021.

[6] Ministry of Health. [<https://www.moh.gov.kw/>]. Accessed February 22 2021.

3.5 RISK COMMUNICATIONS

3.5.1 Public communication

3.5.1b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that Kuwait's public health emergency response strategy outlines how messages will reach populations and sectors with different communications needs (e.g. different languages, location within country, media reach).

According to the Joint External Evaluation (JEE) assessment of Kuwait, published in May 2017, risk communication systems are established under the Ministry of Health (MoH) and incorporate diverse national sectors and stakeholders involved in emergency responses, with coordination functions supported via formal mechanisms. Designated public spokespersons receive training according to international guidelines on risk communications. Additionally, Kuwait has a permanent hotline and a separate hotline activated during emergencies which suggests that public health response teams are able to respond to the concerns of people who reach out [1].

However, the JEE also notes that there is no official national communication plan for emergency situations, and the systems that are in place do not seem to be publicly available, making it difficult to determine if the communication needs of different populations are in fact taken into account. The JEE also suggests that Kuwait's risk communication needs to be expanded and encompass a broader targeting of audiences using different languages, which is particularly important given that almost 70% of Kuwait's population consists of expatriates, according to the CIA World Factbook [1, 2].

The JEE recommendation likely suggests that the MoH's existing communication strategy may not take the communication needs of different groups into account. Beyond having a large expat population, this may also prove problematic for Kuwait's substantial 'bidoon' community, which is comprised of Arab migrants from the 1950s as well as their descendants whom the government consider to be illegal residents (bidoon literally translates to 'without' referring to their lack of citizenship). In 2015, the government had registered 110,729 bidoon in Kuwait, according to the Carnegie Center [3].

A review of online sources including the Ministry of Health, Ministry of Interior, and the General Department of Civil Defence webpages did not provide any further evidence in this regard [4, 5, 6].

[1] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [<https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11-eng.pdf?sequence=1&isAllowed=y>]. Accessed February 22 2021.

[2] CIA World Factbook. "Kuwait". [<https://www.cia.gov/the-world-factbook/countries/kuwait/>]. Accessed February 22 2021.

[3] Carnegie Endowment for International Peace, October 2017. "The Politics of Kuwait's Bidoon Issue". [<http://carnegieendowment.org/sada/73492>]. Accessed February 22 2021.

[4] Ministry of Health. [<https://www.moh.gov.kw/>]. Accessed February 22 2021.

[5] Ministry of Interior. [<https://www.moi.gov.kw/portal/varabic/>]. Accessed February 22 2021.

[6] General Department of Civil Defence. [<https://www.moi.gov.kw/civildefense/index.aspx>]. Accessed February 22 2021.

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 insufficient evidence that Kuwait has a formal risk communication plan in place that is specifically intended for use during a public health emergency.

According to the Joint External Evaluation (JEE) assessment of Kuwait, published in May 2017, risk communication systems are established under the Ministry of Health but incorporate diverse national sectors and stakeholders involved in emergency responses, with coordination functions supported via formal mechanisms. Roles and responsibilities concerning risk communication are established and agreed upon amongst ministries in the event of different scenarios, and risk communication has been integrated into simulation exercises in addition to having been put into practice during mass casualty and emergency outbreak events. However, the JEE also notes that there is no official national communication plan for emergency situations and a paucity of trained personnel to manage the existing risk communication system. Kuwait also does not have dedicated financial resources to facilitate ongoing and emergency scaling of risk communications activities. Nevertheless, roles and responsibilities concerning risk communication are agreed upon among several ministries according to different emergency scenarios, and designated public spokespersons receive training according to international guidelines on risk communications [1].

A review of online sources including the Ministry of Health, Ministry of Interior, and the General Department of Civil Defence webpages did not yield any further evidence [2, 3, 4].

[1] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [<https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11-eng.pdf?sequence=1&isAllowed=y>]. Accessed February 28 2021.

[2] Ministry of Health. [<https://www.moh.gov.kw/>]. Accessed February 28 2021.

[3] Ministry of Interior. [<https://www.moi.gov.kw/portal/varabic/>]. Accessed February 28 2021.

[4] General Department of Civil Defence. [<https://www.moi.gov.kw/civildefense/index.aspx>]. Accessed February 28 2021.

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: 1

There is publicly available evidence that shows that Kuwait's risk communication plan designates a specific position within the government to serve as the primary spokesperson to the public during a public health emergency.

According to the Joint External Evaluation (JEE) assessment of Kuwait, published in May 2017, risk communication systems are established under the Ministry of Health (MoH) and incorporate diverse national sectors and stakeholders involved in emergency responses, with coordination functions supported via formal mechanisms. Designated public spokespersons receive training according to international guidelines on risk communications. Additionally, Kuwait has a permanent hotline and a separate hotline activated during emergencies which suggests that public health response teams are able to respond to the concerns of people who reach out [1].

However, the JEE also notes that there is no official national communication plan for emergency situations, and the systems that are in place do not seem to be publicly available [1]. Additionally, the JEE mentions that "there is a dedicated spokesperson for each Ministry, yet in the event of an emergency, communication with the public is streamlined through the Ministry of Interior who is the paramount communicator"[1]. There is no evidence, however, of a specific person or position.

Still, in light of the Covid-19 pandemic, many Covid restrictions were announced either through decisions by the Council of Ministers, or via a government spokesman for the Government of Kuwait [2, 3]. Additionally, the Ministry of Health has a spokesman who also makes public statements on behalf of the Ministry of Health [4]. Note that the Joint External Evaluation (JEE) of Kuwait, published in May 2017, recommends that the "establishment of an integral Department of Emergency Management under the MoH would improve coordination and communication", meaning that no emergency medical agency is in place in Kuwait [1].

A review of online sources including the Ministry of Health, Ministry of Interior, and the General Department of Civil Defence webpages did not provide any further evidence in this regard [5, 6, 7].

[1] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [<https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11-eng.pdf?sequence=1&isAllowed=y>]. Accessed February 22 2021.

[2] Al Arabiya. February 3, 2021. "Kuwait tightens coronavirus restrictions: Closes shops, restaurants at night". [<https://english.alarabiya.net/coronavirus/2021/02/03/Coronavirus-Kuwait-tightens-coronavirus-restrictions-Closes-all-shops-restaurants-at-night>]. Accessed February 25 2021.

[3] Arabian Business. March 15, 2020. "Kuwait closes shopping malls to curb spread of coronavirus". [<https://www.arabianbusiness.com/retail/442838-kuwait-closes-shopping-malls-to-curb-spread-of-coronavirus>]. Accessed February 25 2021.

[4] Kuwait News Agency. February 7, 2020. [<https://www.kuna.net.kw/ArticleDetails.aspx?id=2958453&language=en>]. Accessed February 22, 2021.

[5] Ministry of Health. [<https://www.moh.gov.kw/>]. Accessed February 22 2021.

[6] Ministry of Interior. [<https://www.moi.gov.kw/portal/varabic/>]. Accessed February 22 2021.

[7] General Department of Civil Defence. [<https://www.moi.gov.kw/civildefense/index.aspx>]. Accessed February 22 2021.

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 in the past year, the Kuwaiti 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.

According to the Joint External Evaluation (JEE) assessment of Kuwait, published in May 2017, all governmental stakeholders involved in emergencies undertake continuous public outreach through traditional and social media [1].

The Ministry of Health (MoH) has a YouTube channel with videos on health-related topics; the channel was especially active during the COVID-19 pandemic, with daily and periodic health-related press conference updates being streamed, as well as guidelines, awareness, and advice for people to follow while quarantining [2, 3]. Prior to the COVID-19 pandemic, the last video uploaded dated back to November 2018. The channel also previously included videos aimed at raising awareness and taking preventative measures against MERS CoV for travellers planning to do Hajj or Omra in Mekkah, and videos generating awareness regarding the Ebola virus in 2014, among others throughout the years [4, 5].

The MoH also has an Instagram page, with over 494,000 followers and has over 1,900 posts, which dispelled rumors about COVID-19 vaccination, and also included awareness generation and preventative measures for a range of non-communicable diseases, as well as communicable diseases such as COVID-19, MERS CoV, and meningitis [5, 6, 7]. The page has been active on a regular basis during 2020.

The MoH also has two active twitter accounts, one is a general account with over 544,000 followers and over 9,000 tweets, while the other is the MoH news account with 132,000 followers and over 43,000 tweets [8, 9]. The MoH has used twitter to inform the public about disease outbreaks. On February 26, two separate posts were made, one to dispel a rumor regarding privacy of data of people who have taken the vaccine, and another addressing a rumor claiming that a person had died as a result of taking the vaccine [10, 11]. According to the WHO's disease outbreak news country profile for Kuwait, there have not been any outbreaks since March 2014 [12].

[1] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [<https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11-eng.pdf?sequence=1&isAllowed=y>]. Accessed February 28 2021.

[2] Youtube. March 14, 2020. "The guidelines to follow during home quarantine period - Health Media Office". [<https://www.youtube.com/watch?v=m7719aOhKIo>]. Accessed February 28 2021.

[2] Youtube. March 10, 2020. "Ministry of Health Press Conference". [https://www.youtube.com/watch?v=3_MGqQaGGYE]. Accessed February 28 2021.

[3] Youtube. 2014. "Kuwait Ministry of Health: Prevention from the Coronavirus for those Travelling to the Holy Land". [<https://www.youtube.com/watch?v=4SwOb6a3sbw>]. Accessed February 28 2021.

[4] Youtube. 2014. "Kuwait Ministry of Health: Ebola Virus". [<https://www.youtube.com/watch?v=-yUeimjukXg>]. Accessed February 28 2021.

[5] Instagram. February 26, 2021. "Kuwait Ministry of Health (Kuwait_moh): Announcement". [<https://www.instagram.com/p/CLxFEENjPi-/>]. Accessed February 28 2021.

[6] Instagram. May 5, 2014. "Kuwait Ministry of Health (Kuwait_moh): How to Protect Yourself from the Corona Virus". [<https://www.instagram.com/p/noC4IfOi5z/>]. Accessed February 28 2021

[7] Instagram. March 16, 2014. "Kuwait Ministry of Health (Kuwait_moh): Meningitis". [<https://www.instagram.com/p/lm7->

6XOizT/]. Accessed February 28 2021.

[8] Twitter. "Kuwait Ministry of Health (@KUWAIT_MOH)". [https://twitter.com/KUWAIT_MOH]. Accessed February 28 2021.

[9] Twitter. "Kuwait Ministry of Health News (@KuwaitMOHNews)". [<https://twitter.com/KuwaitMOHNews>]. Accessed February 28 2021.

[10] Twitter. "Kuwait Ministry of Health News (@KuwaitMOHNews): Ministry of Health Clarifies Information Circulating about Privacy of Patient Health Data and Protection of their Rights".

[<https://twitter.com/KuwaitMOHNews/status/1365409637240037390?s=20><https://twitter.com/KuwaitMOHNews/status/1365409637240037390?s=20>]. Accessed February 28 2021.

[11] Twitter. "Kuwait Ministry of Health News (@KuwaitMOHNews): No Detection of Any Deaths Related to COVID-19 Vaccination".

[<https://twitter.com/KuwaitMOHNews/status/1365409514959306754><https://twitter.com/KuwaitMOHNews/status/1365409514959306754>]. Accessed February 28 2021.

[12] World Health Organization. "Disease Outbreak News: Kuwait". [<https://www.who.int/csr/don/archive/country/kwt/en/>]. Accessed February 28 2021.

3.5.2b

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

No = 1, Yes = 0

Current Year Score: 1

There is no evidence that senior leaders in Kuwait have shared misinformation or disinformation on infectious diseases in the past two years (2019 & 2020).

Upon conducting an online search at the Kuwait News Agency health section, the BBC, and CNN, there is no publicly available evidence that shows that senior leaders in Kuwait have shared, knowingly or unknowingly, misinformation or disinformation on infectious diseases in the past two years [1, 2, 3].

[1] Kuwait News Agency. [<https://www.kuna.net.kw/CategoryPage.aspx?id=117&language=en&new=1>]. Accessed February 28 2021.

[3] BBC. "Search Results- Kuwait". [<https://www.bbc.co.uk/news/topics/cp7r8vglmjt/kuwait>]. Accessed February 28 2021.

[4] CNN. "Search Results- Kuwait".

[<https://edition.cnn.com/search?size=10&q=kuwait&category=us,politics,world,opinion,health>]. Accessed February 28 2021.

3.6 ACCESS TO COMMUNICATIONS INFRASTRUCTURE

3.6.1 Internet users

3.6.1a

Percentage of households with Internet

Input number

Current Year Score: 99.54

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: 174.16

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: 2.0

2019

Gallup; Economist Impact calculation

3.7 TRADE AND TRAVEL RESTRICTIONS

3.7.1 Trade restrictions

3.7.1a

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

Yes = 0 , No = 1

Current Year Score: 0

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

According to the Market Access Map's "Covid-19 Temporary Trade Measures", Kuwait has issued, on March 12, 2020, an "export prohibition for all foodstuffs, medicines, medical supplies and equipment, unless authorized by Ministry of Trade and Industry", due to the COVID-19 pandemic [1].

According to the World Trade Organization's "Covid-19: Measures Affecting Trade in Goods", there is no information that indicates that Kuwait has issued a restriction, without international/bilateral support, on the export/import of medical goods (e.g. medicines, oxygen, medical supplies, PPE) due to an infectious disease outbreak [2].

Neither the World Health Organisation's 'Disease Outbreak News', the Ministry of Health, nor the Public Authority of Agriculture Affairs and Fish Resources have made any mention of a restriction on the export/import of medical goods (e.g. medicines, oxygen, medical supplies, PPE) due to an infectious disease outbreak in the past year [3,4,5]. The World Organization for Animal Health page was out of service as of February 28, 2021 [6].

[1] Market Access Map. "Covid-19 Temporary Trade Measures". [<https://www.macmap.org/covid19>]. Accessed February 28 2021.

[2] World Trade Organization. "Covid-19: Measures Affecting Trade in Goods". [https://www.wto.org/english/tratop_e/covid19_e/trade_related_goods_measure_e.htm]. Accessed February 28 2021.

[3] World Health Organization (WHO). "WHO Disease Outbreak News". [<https://www.who.int/csr/don/archive/country/kwt/en/>]. Accessed February 28 2021.

[4] Ministry of Health. [<https://www.moh.gov.kw/>]. Accessed February 28 2021.

[5] Public Authority of Agriculture Affairs and Fish Resources. [<http://website.paaf.gov.kw/>]. Accessed February 28 2021.

[6] World Organization for Animal Health. "OIE Weekly disease information". [https://www.oie.int/wahis_2/public/wahid.php/Diseaseinformation/WI]. Accessed February 28 2021.

3.7.1b

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

Yes = 0 , No = 1

Current Year Score: 0

In the past year, Kuwait has 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.

According to the Market Access Map's "Covid-19 Temporary Trade Measures", Kuwait has issued, on March 12, 2020, an "export prohibition for all foodstuffs, medicines, medical supplies and equipment, unless authorized by Ministry of Trade and Industry", due to the COVID-19 pandemic [1].

According to the World Trade Organization's "Covid-19: Measures Affecting Trade in Goods", there is no information that indicates that Kuwait has 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 [2].

Neither the World Health Organisation's 'Disease Outbreak News', the Ministry of Health, nor the Public Authority of Agriculture Affairs and Fish Resources have made mention of a restriction on the export/import of non-medical goods (e.g. food, textiles, etc) due to an infectious disease outbreak [3,4,5]. The World Organization for Animal Health page was out of service as of February 28, 2021 [6].

[1] Market Access Map. "Covid-19 Temporary Trade Measures". [<https://www.macmap.org/covid19>]. Accessed February 28 2021.

[2] World Trade Organization. "Covid-19: Measures Affecting Trade in Goods". [https://www.wto.org/english/tratop_e/covid19_e/trade_related_goods_measure_e.htm]. Accessed February 28 2021.

[3] World Health Organization (WHO). "WHO Disease Outbreak News". [<https://www.who.int/csr/don/archive/country/kwt/en/>]. Accessed February 28 2021.

[4] Ministry of Health. [<https://www.moh.gov.kw/>]. Accessed February 28 2021.

[5] Public Authority of Agriculture Affairs and Fish Resources. [<http://website.paaf.gov.kw/>]. Accessed February 28 2021.

[6] World Organization for Animal Health. "OIE Weekly disease information". [https://www.oie.int/wahis_2/public/wahid.php/Diseaseinformation/WI]. Accessed February 28 2021.

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 publicly available information that shows that Kuwait has, in the past year, implemented a ban, without international/bilateral support, on travelers arriving from a specific country or countries due to an infectious disease outbreak.

According to an article by GardaWorld from March 2020, the government suspended "all commercial flights to and from Kuwait from March 13 amid COVID-19 concerns" [1]. According to an article by Al Arabiya from March 2020, "Kuwait's Directorate General of Civil Aviation (DGCA) announced the suspension of all flights to and from Egypt, Lebanon, Syria, Bangladesh, Philippines, India and Sri Lanka for a week starting Saturday, as well as banning the entry of anyone who has been in those seven countries in the last two weeks". The article mentioned as well that "Kuwait had previously banned travel to and from China, Hong Kong, Iran, South Korea, Thailand, Italy, Singapore, Japan and Iraq"[2].

Neither the General Department of Civil Defence, the Ministry of Interior, nor the Ministry of Foreign Affairs provide additional information in this regard [3, 4, 5].

[1] GardaWorld. March 7, 2020. "Kuwait: Government suspends all commercial flights from March 13 /update 7". [<https://www.garda.com/crisis24/news-alerts/321866/kuwait-government-suspends-all-commercial-flights-from-march-13-update-7>]. Accessed February 28, 2021.

[2] Al Arabiya. March 7, 2020. "Coronavirus: Kuwait bans travel with Egypt, Lebanon, Syria and 4 other countries". [<https://english.alarabiya.net/News/gulf/2020/03/07/Coronavirus-Kuwait-bans-travel-with-Egypt-Lebanon-Syria-and-4-other-countries>]. Accessed February 28, 2021.

[3] General Department of Civil Defence. [<https://www.moi.gov.kw/civildefense/index.aspx>]. Accessed February 28 2021.

[4] Ministry of Interior. [<https://www.moi.gov.kw/portal/varabic/>]. Accessed February 28 2021.

[5] Ministry of Foreign Affairs. [https://www.mofa.gov.kw/en/media-center/official-statements/?from_date=2020-02-01&to_date=2020-04-01]. Accessed February 28 2021.

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: 264.63

2015

WHO; national sources

4.1.1b

Nurses and midwives per 100,000 people

Input number

Current Year Score: 741.45

2018

WHO; national sources

4.1.1c

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

Yes = 1 , No = 0

Current Year Score: 0

There is insufficient publicly available evidence to suggest that Kuwait has a public workforce strategy in place which has been updated in the past 5 years to identify fields where there is an insufficient workforce along with strategies to address these shortcomings.

According to the Joint External Evaluation (JEE) assessment of Kuwait, published in May 2017, the training of public health workers is the responsibility of the Training and Development Department (although it is unclear where this department is located), which coordinates with the Kuwait Institute of Medical Specialization [1]. However, according to the WHO's 2012-2016 Country Cooperation Strategy for Kuwait, the public health sector is decentralized; Kuwait is divided into six health regions, and each region has an administrative unit with considerable autonomy in terms of administrative affairs, including the training of health workforce. The WHO report adds that human resources assessments and required training are undertaken in each department or major health facility, however, overall human resource development activities are scattered, not coordinated, and there is a need to develop a comprehensive training plan [2].

A review of the Ministry of Health (MoH) website only provides a basic overview of the training curriculum for the MoH's information system management team, however, course examples appear to be quite basic (e.g. windows 10, printings skills, power point 2016) and no additional indication of training plans or strategies is publicly available on the MoH website [3, 4, 5].

The JEE does note that adequate staffing and a sufficiently sized workforce are in place for all levels, however it also recommends that more opportunities are needed to train staff in tertiary degrees (masters and PhDs), for all health-related occupations (including veterinarians and health inspectors) [1]. A study published in the Journal of Emergency Medicine in 2018 had similar findings with regards to Kuwait's emergency medical service providers, finding that additional training in responding to mass casualty incidents was needed [6].

The WHO report adds that the health workforce in Kuwait relies heavily on an expatriate workforce, with a high level of dependence on expatriate nurses, doctors, and pharmacists, and anticipates that the utilization of non-Kuwaiti staff will continue for many more years. The study further notes that nationalization strategies and corresponding training have been introduced which aim to ensure an adequate level of availability of Kuwaiti medical personnel and to minimize dependence on foreign professional health staff. However, the study notes that for nursing the prospects of training an adequate number of Kuwaiti graduates are not good. The report recommends developing a system of human resources needs assessment with the required criteria to achieve a medical workforce on par with industrialized countries [2].

A review of the Ministry of Higher Education website has not yielded any further information [7]. Kuwait has a Ministry of Social Affairs and Labour, however, the link was not working during the time of access (February 28, 2021).

[1] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [<https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11-eng.pdf?sequence=1&isAllowed=y>]. Accessed February 28 2021.

[2] World Health Organization Regional Office for the Eastern Mediterranean. 2014. "Country Cooperation Strategy for WHO and Kuwait 2012-2016". [https://apps.who.int/iris/bitstream/handle/10665/113231/CCS_Kuwait_2014_EN_15234.pdf?sequence=1&isAllowed=y]. Accessed February 28 2021.

[3] Ministry of Health. [<https://www.moh.gov.kw/>]. Accessed February 28 2021.

[4] Ministry of Health. "Information Systems Training Program". [https://www.moh.gov.kw/en/Departments/5/5-14/IT_Training]. Accessed February 28 2021.

[5] Ministry of Health. 2019. "Training Plan for (January - May) 2019". [<https://www.moh.gov.kw/media/fc062db1-e051-4fd4-bcd0-e8e95c5d9224/-1589266006/Training/Jan2019.pdf>]. Accessed February 28 2021.

[6] Alharbi, A. 2018. "Effect of Mass Casualty Training on Prehospital Care Provider in Kuwait". Emergency Medicine. [<https://www.omicsonline.org/open-access/effect-of-mass-casualty-training-on-prehospital-care-providers-in-kuwait-2165-7548-1000368.pdf>]. Accessed February 28 2021.

[7] Ministry of Higher Education. [<https://www.mohe.edu.kw/site/>]. Accessed February 28 2021.

4.1.2 Facilities capacity

4.1.2a

Hospital beds per 100,000 people

Input number

Current Year Score: 204

2017

WHO/World Bank; national sources

4.1.2b

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

Yes = 1 , No = 0

Current Year Score: 1

There is evidence that Kuwait does have the capacity to isolate patients with highly communicable diseases in isolation facilities located within the country.

MediCleanAir, a Belgian-Swiss manufacturer of air purification and isolation units with negative pressure features, report that their units have been installed in several Kuwaiti hospitals (the Rashid (Maternity) Hospital; Al Salam Hospital; Al Amal Hospital and the Ministry of Health) [1].

Kuwait's Joint External Evaluation assessment, published in May 2017, notes that "formal procedures for applying both animal and human quarantine" are in place [2]. Furthermore, the Ministry of Health's Infection Control Directorate contains guidelines for patients suspected or known to have highly communicable diseases (e.g. Ebola, Nipah Virus, Avian Influenza) and includes guidelines on isolation rooms such patients should be placed in [3, 4, 5]. For example, the avian influenza infection emergency plan, published in 2005, states that the patient should be placed in an "airborne isolation room" with negative air pressure, likely suggesting such isolation units are in place [5].

Furthermore, Appendix 10 of the Infection Control Directorate's 'Isolation Policy' document, published in 2017, contains detailed guidelines on the proper engineering and control of isolation rooms to minimize the spread of disease, including guidelines related to air pressure, airflow, ventilation, and securing the parameters of the room, further suggesting that isolation units are in place in Kuwait [6].

[1] MediCleanAir. "Air Purification and Isolation Units".

[https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKEwiXk_qYi4_vAhU5tXEKHf3QDpoQFjAAegQIAxAD&url=https%3A%2F%2Fmediccleanair.com%2Frc-100-200.html%3Ffile%3Dfiles%2Fmca%2Finhalt%2Fdownloads%2FBroschure-EN.pdf&usg=AOvVaw1gjlXWm_lxtYhMCUBd7-f]. Accessed 28 February 2021.

[2] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [<https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11->

eng.pdf?sequence=1&isAllowed=y]. Accessed 28 February 2021.

[3] Ministry of Health - Infection Control Directorate. 2018. "Updated Infection Prevention and Control Recommendations for Hospitalized Patients with Known or Suspected Ebola Virus Disease (EVD)".

[<http://www.icdkwt.com/pdf/policiesandguidelines/InfectionPreventionandControl/ebolavirus2018.pdf>]. Accessed 28 February 2021.

[4] Ministry of Health - Infection Control Directorate. 2018. "Infection Control Guidelines within Healthcare Settings When Caring for Suspected Cases, Probable Cases, and Confirmed Cases for Nipah Virus Infection (NiV) including Encephalitis".

[<http://www.icdkwt.com/pdf/policiesandguidelines/InfectionPreventionandControl/Nipahvirus2018.pdf>]. Accessed 28 February 2021.

[5] Ministry of Health - Infection Control Directorate. 2005. "Avian Influenza (H5N1) Infection Control Emergency Plan & Guidelines for health care facilities".

[<http://www.icdkwt.com/pdf/policiesandguidelines/InfectionPreventionandControl/AvianInfluenza.pdf>]. Accessed 28 February 2021.

[6] Ministry of Health - Infection Control Directorate. 2017. "Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings".

[<http://www.icdkwt.com/pdf/policiesandguidelines/InfectionPreventionandControl/isolation-policy-march2017.pdf>]. Accessed 28 February 2021.

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 Kuwait has demonstrated capacity to expand isolation capacity in response to an infectious disease outbreak in the past two years. Additionally, there is no evidence that Kuwait has developed, updated or tested a plan to expand isolation capacity in response to an infectious disease outbreak in the past two years. While there is evidence of existing isolation capacity, there is no information on efforts to expand these facilities in the past two years, either through actual demonstrated capacity or plans to do so. MediCleanAir, a Belgian-Swiss manufacturer of air purification and isolation units with negative pressure features, report that their units have been installed in several Kuwaiti hospitals (the Rashid (Maternity) Hospital; Al Salam Hospital; Al Amal Hospital and the Ministry of Health) [1]. Kuwait's Joint External Evaluation assessment, published in May 2017, notes that "formal procedures for applying both animal and human quarantine" are in place. Additionally, there is no evidence that Kuwait has developed, updated or tested a plan to expand isolation capacity in response to an infectious disease outbreak in the past two years [2]. Furthermore, the Ministry of Health's Infection Control Directorate contains guidelines for patients suspected or known to have highly communicable diseases (e.g. Ebola, Nipah Virus, Avian Influenza) and includes guidelines on isolation rooms such patients should be placed in [3, 4, 5]. For example, the avian influenza infection emergency plan, published in 2005, states that the patient should be placed in an "airborne isolation room" with negative air pressure, likely suggesting such isolation units are in place [5]. Furthermore, Appendix 10 of the Infection Control Directorate's 'Isolation Policy' document, published in 2017, contains detailed guidelines on the proper engineering and control of isolation rooms to minimize the spread of disease, including guidelines related to air pressure, airflow, ventilation, and securing the parameters of the room, further suggesting that isolation units are in place in Kuwait [6]. But there is no evidence of isolation capacity expansion.

[1] MediCleanAir. "Air Purification and Isolation Units".

[https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKEwiXk_qYi4_vAhU5tXEKHf3QDpoQFjAAegQIAxAD&url=https%3A%2F%2Fmediccleanair.com%2Frc-100-200.html%3Ffile%3Dfiles%2Fmca%2Finhalt%2Fdownloads%2FBroschure-EN.pdf&usg=AOvVaw1gjlXWm_ltxYhMCUBd7-f]. Accessed 28 February 2021.

[2] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [<https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11-eng.pdf?sequence=1&isAllowed=y>]. Accessed 28 February 2021.

[3] Ministry of Health – Infection Control Directorate. 2018. "Updated Infection Prevention and Control Recommendations for Hospitalized Patients with Known or Suspected Ebola Virus Disease (EVD)".

[<http://www.icdkwt.com/pdf/policiesandguidelines/InfectionPreventionandControl/ebolavirus2018.pdf>]. Accessed 28 February 2021.

[4] Ministry of Health – Infection Control Directorate. 2018. "Infection Control Guidelines within Healthcare Settings When Caring for Suspected Cases, Probable Cases, and Confirmed Cases for Nipah Virus Infection (NiV) including Encephalitis".

[<http://www.icdkwt.com/pdf/policiesandguidelines/InfectionPreventionandControl/Nipahvirus2018.pdf>]. Accessed 28 February 2021.

[5] Ministry of Health – Infection Control Directorate. 2005. "Avian Influenza (H5N1) Infection Control Emergency Plan & Guidelines for health care facilities".

[<http://www.icdkwt.com/pdf/policiesandguidelines/InfectionPreventionandControl/AvianInfluenza.pdf>]. Accessed 28 February 2021.

[6] Ministry of Health – Infection Control Directorate. 2017. "Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings".

[<http://www.icdkwt.com/pdf/policiesandguidelines/InfectionPreventionandControl/isolation-policy-march2017.pdf>]. Accessed 28 February 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: 1

There is publicly available evidence suggesting that Kuwait has a national procurement protocol in place which can be utilized by the Ministry of Health but not the Ministry of Agriculture for the acquisition of laboratory supplies (e.g. equipment, reagents and media) and medical supplies (e.g. equipment, PPE) for routine needs.

According to the Joint External Evaluation assessment of Kuwait, published in May 2017, "the country has a rigorous system for procurement, with fast track mechanisms in urgent situations if necessary, ensuring business continuity"[1].

The JEE adds that "there are procedures in place for the fast-tracked procurement of medical countermeasures which were effectively exercised, for example, while acquiring Tamiflu during the 2009 H1N1 pandemic and personal protective

equipment (PPE) during the recent Ebola crisis. To better facilitate this process, an integrated database outlining established suppliers, their location, and their potential turn-around/response time is utilized in the event of rapid procurement". Further, the JEE states that "Kuwait has only one pharmaceutical company which supplies solely antibiotics, all other medical countermeasures come from outside the country. Procurement is centralized nationally, and warehouse stocks represent a 7-month supply".

With regards to a national procurement protocol in place which can be utilized by the Ministry of Agriculture, the JEE only states that "plans and procedures are in place for the procurement and distribution of animal countermeasures in coordination with the General Authority for Agriculture and Fisheries". Therefore, no mention of laboratory supplies (e.g. equipment, reagents and media) and medical supplies (e.g. equipment, PPE) was made [1].

The MoH webpage contains guidelines on how the medical workforce can procure supplies from third party providers and invoice these purchases to the MoH, however this information is not specific [2].

The Financial and Administrative Affairs section of the Public Authority of Agriculture and Fish Resources (PAAF) is responsible for providing PAAF with the necessary equipment, and also contains the procurement and tenders departments, however, the page is out of service for maintenance purposes as of February 28, 2021 [3]. The PAAF online webpage concerned with tenders and tender programs is out of service for maintenance as of February 28, 2021 [4].

[1] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [<https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11-eng.pdf?sequence=1&isAllowed=y>]. Accessed 28 February 2021.

[2] Ministry of Health. "Ministry of Health Services: Dues suppliers and contractors for exchange (purchase orders, supply contracts, construction contracts, consulting contracts, maintenance contracts)". [<https://www.moh.gov.kw/en/ServiceInstruction>]. Accessed 28 February 2021.

[3] Public Authority of Agriculture Affairs and Fish Resources. "Financial and Administrative Affairs Section". [http://website.paaf.gov.kw/public_html/maliah.html]. Accessed 28 February 2021.

[4] Public Authority of Agriculture Affairs and Fish Resources. [http://website.paaf.gov.kw/pls/portal/url/page/paafweb/home/SERVICES/TENDP_DISP/]. Accessed 28 February 2021.

4.2.2 Stockpiling for emergencies

4.2.2a

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

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

Current Year Score: 1

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

According to the Joint External Evaluation assessment of Kuwait, published in May 2017, "Kuwait has only one pharmaceutical company which supplies solely antibiotics, all other medical countermeasures come from outside the country. Procurement is centralized nationally, and warehouse stocks represent a 7-month supply". The JEE also mentions that "a well functioning central procurement system with a six-month emergency stock of vaccines has prevented stockout situations", and that "emergency stockpiles for response to priority biological, chemical and radiological

risks are prepositioned and critical stock levels are monitored and updated on a weekly to monthly basis". However, the JEE adds that there is a "lack of adequate storage space to accommodate the demand of pharmaceutical and medical equipment - storage space shortage has resulted in some reduction of warehouse stock". Thus Kuwait has a stockpile of medical supplies (e.g. MCMs, medicines, vaccines, medical equipment, PPE) for national use during a public health emergency.

Upon conducting an online inquiry in search of Kuwait's "Strategic stockpiling plan during emergencies 2015" document, the document could not be found online.

The websites of the Ministry of Health and the Public Authority of Agriculture and Fish Resources (PAAF) did not provide additional information in this regard [2, 3].

[1] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [<https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11-eng.pdf?sequence=1&isAllowed=y>]. Accessed 28 February 2021.

[2] Ministry of Health. [<https://www.moh.gov.kw/>]. Accessed 28 February 2021.

[3] Public Authority of Agriculture Affairs and Fish Resources. [<http://website.paaf.gov.kw/>]. Accessed 28 February 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 of a stockpile of laboratory supplies (e.g. reagents, media) for national use during a public health emergency.

According to the Joint External Evaluation assessment of Kuwait, published in May 2017, "Kuwait has only one pharmaceutical company which supplies solely antibiotics, all other medical countermeasures come from outside the country. Procurement is centralized nationally, and warehouse stocks represent a 7-month supply". The JEE also mentions that "a well functioning central procurement system with a six-month emergency stock of vaccines has prevented stockout situations", and that " emergency stockpiles for response to priority biological, chemical and radiological risks are prepositioned and critical stock levels are monitored and updated on a weekly to monthly basis". However, the JEE adds that there is a "lack of adequate storage space to accommodate the demand of pharmaceutical and medical equipment - storage space shortage has resulted in some reduction of warehouse stock". Therefore, there is insufficient evidence to show that Kuwait has a stockpile of laboratory supplies (e.g. reagents, media) for national use during a public health emergency.

Upon conducting an online inquiry in search of Kuwait's "Strategic stockpiling plan during emergencies 2015" document, the document could not be found online.

The websites of the Ministry of Health and the Public Authority of Agriculture and Fish Resources (PAAF) did not provide additional information in this regard [2, 3].

[1] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [<https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11-eng.pdf?sequence=1&isAllowed=y>]. Accessed 28 February 2021.

[2] Ministry of Health. [<https://www.moh.gov.kw/>]. Accessed 28 February 2021.

[3] Public Authority of Agriculture Affairs and Fish Resources. [<http://website.paaf.gov.kw/>]. Accessed 28 February 2021.

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 insufficient evidence that Kuwait conducts or requires an annual review of the national stockpile to ensure the supply is sufficient for a public health emergency. There is, however, evidence that the stockpile is monitored and updated on a weekly to monthly basis for inventory purposes. According to the Joint External Evaluation assessment of Kuwait, published in May 2017, "Kuwait has only one pharmaceutical company which supplies solely antibiotics, all other medical countermeasures come from outside the country. Procurement is centralized nationally, and warehouse stocks represent a 7-month supply". The JEE also mentions that "a well functioning central procurement system with a six-month emergency stock of vaccines has prevented stockout situations", and that "emergency stockpiles for response to priority biological, chemical and radiological risks are prepositioned and critical stock levels are monitored and updated on a weekly to monthly basis". However, the JEE adds that there is a "lack of adequate storage space to accommodate the demand of pharmaceutical and medical equipment - storage space shortage has resulted in some reduction of warehouse stock". [1] Upon conducting an online inquiry in search of Kuwait's "Strategic stockpiling plan during emergencies 2015" document, the document could not be found online. The websites of the Ministry of Health and the Public Authority of Agriculture and Fish Resources (PAAF) did not provide additional information in this regard [2, 3].

[1] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [<https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11-eng.pdf?sequence=1&isAllowed=y>]. Accessed 28 February 2021.

[2] Ministry of Health. [<https://www.moh.gov.kw/>]. Accessed 28 February 2021.

[3] Public Authority of Agriculture Affairs and Fish Resources. [<http://website.paaf.gov.kw/>]. Accessed 28 February 2021.

4.2.3 Manufacturing and procurement for emergencies

4.2.3a

Does the country meet one of the following criteria?

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

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

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

Current Year Score: 1

There is publicly available information that shows that Kuwait has a plan/mechanism to procure medical supplies (e.g. MCMs, medicines, vaccines, equipment, PPE) for national use during a public health emergency; however, there is no publicly available information that shows that Kuwait has 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.

Kuwait's Ministry of Health and the Public Authority of Agriculture and Fish Resources are stakeholders in the Gulf Health Council's Gulf Joint Procurement Program, whose mission is the "provision of high quality medicines, medical supplies and devices to member states and participating hospitals to the right location at the right time and from the registered manufacturers at fair prices"[1]. Among the Program's goals are ensuring "the continuous supply of medicines and medical supplies year-long via the use of supply batches", as well as opening "the door to other health sectors to secure their needs through the GCC unified procurement program"[1].

According to the Joint External Evaluation assessment of Kuwait, published in May 2017, "the country has a rigorous system for procurement, with fast track mechanisms in urgent situations if necessary, ensuring business continuity". This is limited to laboratory supplies rather than medical supplies [2]. According to the JEE, the Public Health Laboratory (PHL) was appointed by the Ministry of Health (MoH) as the national reference laboratory for a number of diseases, and the MoH requires the PHL's participation in the investigation of all disease outbreaks, likely suggesting that the PHL's procurement needs are taken care of by the MoH.

The JEE adds that "there are procedures in place for the fast-tracked procurement of medical countermeasures which were effectively exercised, for example, while acquiring Tamiflu during the 2009 H1N1 pandemic and personal protective equipment (PPE) during the recent Ebola crisis. To better facilitate this process, an integrated database outlining established suppliers, their location, and their potential turn-around/response time is utilized in the event of rapid procurement". Further, the JEE states that "Kuwait has only one pharmaceutical company which supplies solely antibiotics, all other medical countermeasures come from outside the country. Procurement is centralized nationally, and warehouse stocks represent a 7-month supply". Therefore, there is evidence of a plan/mechanism to procure medical supplies (e.g. MCMs, medicines, vaccines, equipment, PPE) for national use during a public health emergency.

The MoH webpage contains guidelines on how the medical workforce can procure supplies from third party providers and invoice these purchases to the MoH, however this information is not specific [3].

The Financial and Administrative Affairs section of the Public Authority of Agriculture and Fish Resources (PAAF) is responsible for providing PAAF with the necessary equipment, and also contains the procurement and tenders departments, however, the page is out of service for maintenance purposes as of February 28, 2021 [4]. The PAAF online webpage concerned with tenders and tender programs is out of service for maintenance as of February 28, 2021 [5].

[1] Gulf Health Council. "Gulf Joint Procurement Program". [<http://ghc.sa/en-us/Pages/gpintro.aspx>]. Accessed 28 February 2021.

[2] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [<https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11-eng.pdf?sequence=1&isAllowed=y>]. Accessed 28 February 2021.

[3] Ministry of Health. "Ministry of Health Services: Dues suppliers and contractors for exchange (purchase orders, supply contracts, construction contracts, consulting contracts, maintenance contracts)". [<https://www.moh.gov.kw/en/ServiceInstruction>]. Accessed 28 February 2021.

[4] Public Authority of Agriculture Affairs and Fish Resources. "Financial and Administrative Affairs Section". [http://website.paaf.gov.kw/public_html/maliah.html]. Accessed 28 February 2021.

[5] Public Authority of Agriculture Affairs and Fish Resources. [http://website.paaf.gov.kw/pls/portal/url/page/paafweb/home/SERVICES/TENDP_DISP/]. Accessed 28 February 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: 1

There is publicly available information that shows that Kuwait has a plan/mechanism to procure laboratory supplies (e.g. reagents, media) for national use during a public health emergency; additionally, there is no publicly available information that shows that Kuwait 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.

According to the Joint External Evaluation assessment of Kuwait, published in May 2017, "the country has a rigorous system for procurement, with fast track mechanisms in urgent situations if necessary, ensuring business continuity", and this is in reference to laboratory supplies procurement [1]. According to the JEE, the Public Health Laboratory (PHL) was appointed by the Ministry of Health (MoH) as the national reference laboratory for a number of diseases, and the MoH requires the PHL's participation in the investigation of all disease outbreaks, likely suggesting that the PHL's procurement needs are taken care of by the MoH. Additionally, the JEE provides no information regarding a plan/agreement to leverage domestic manufacturing capacity to produce laboratory supplies (e.g. reagents, media) for national use during a public health emergency.

The MoH webpage contains guidelines on how the medical workforce can procure supplies from third party providers and invoice these purchases to the MoH, however this information is not specific [2]. No information is provided regarding a plan/agreement to leverage domestic manufacturing capacity to produce laboratory supplies (e.g. reagents, media) for national use during a public health emergency.

The Financial and Administrative Affairs section of the Public Authority of Agriculture and Fish Resources (PAAF) is responsible for providing PAAF with the necessary equipment, and also contains the procurement and tenders departments, however, the page is out of service for maintenance purposes as of February 28, 2021 [3]. The PAAF online webpage concerned with tenders and tender programs is out of service for maintenance as of February 28, 2021 [4].

[1] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [<https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11-eng.pdf?sequence=1&isAllowed=y>]. Accessed 28 February 2021.

[2] Ministry of Health. "Ministry of Health Services: Dues suppliers and contractors for exchange (purchase orders, supply contracts, construction contracts, consulting contracts, maintenance contracts)". [<https://www.moh.gov.kw/en/ServiceInstruction>]. Accessed 28 February 2021.

[3] Public Authority of Agriculture Affairs and Fish Resources. "Financial and Administrative Affairs Section". [http://website.paaf.gov.kw/public_html/maliah.html]. Accessed 28 February 2021.

[4] Public Authority of Agriculture Affairs and Fish Resources.

[http://website.paaf.gov.kw/pls/portal/url/page/paafweb/home/SERVICES/TENDP_DISP/]. Accessed 28 February 2021.

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 insufficient publicly available evidence that indicates that Kuwait has a plan in place for dispensing medical countermeasures for national use during a public health emergency. Evidence suggests there is such a plan, although the plan does not appear to be publicly available.

According to the Joint External Evaluation (JEE) assessment of Kuwait, published in May 2017, several preparedness plans specifically include consideration for medical countermeasures, such as the 'Emergency Medical Warehouse Management Plan and site-map'. These plans are not publicly available online. The JEE also notes that "Existent human resources are well trained in the event of tracking/distributing medical countermeasures, and emergency task forces can be readily formed with full logistical, financial and manpower capacities" and that "Extensive experience in procurement of medical countermeasures and an integrated database to ensure logistical capacity" [1]. Guidelines for dispensing medical countermeasures may be in place, however a plan for dispensing medical countermeasures could not be located. The JEE adds that plans and procedures are also in place for the procurement and distribution of animal countermeasures, in coordination with the Public Authority of Agriculture Affairs and Fish Resources, however, these too could not be located online. Furthermore, agreements are also in place with the Kuwait Red Crescent Society and Ministry of Defence for the transfer and receipt of medical countermeasures during a shortage or public health emergency.

A review of online sources including the Ministry of Health, the Infection Control Directorate (which includes infection control emergency plans for numerous communicable diseases), the General Department of Civil Defence, which is the coordinating entity in Kuwait responsible for the management of emergencies and disasters, and the Public Authority for Agriculture Affairs and Fish Resources has not provided any further information [2, 3, 4, 5].

STA Law Firm's "A Guide to Distribution of Pharmaceutical Products in Kuwait 2019-2020" provides comprehensive information about the pharmaceutical sector in Kuwait, however, there is no evidence of a plan in place for dispensing medical countermeasures for national use during a public health emergency [6].

A London School of Economics and Political Science (LSE) publication titled, "Kuwait's Hundred Million Dollar Supply Management Opportunity", tackles Kuwait's health sector supply chain. It mentions that "the supply chain of the health sector - the manufacturing, distribution, procurement, and consumption of medical supplies - has severely lagged other supply chains in terms of efficiency, innovation and technologies". However, it does not mention anything about the plan in place for dispensing medical countermeasures for national use during a public health emergency [7].

[1] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [<https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11-eng.pdf?sequence=1&isAllowed=y>]. Accessed February 28 2021.

[2] Ministry of Health. [<https://www.moh.gov.kw/>]. Accessed February 28 2021.

- [3] Ministry of Health - Infection Control Directorate. [<http://www.icdkwt.com/index.php>]. Accessed February 28 2021.
- [4] General Department of Civil Defence. [<https://www.moi.gov.kw/civildefense/index.aspx>]. Accessed February 28 2021.
- [5] Public Authority of Agriculture Affairs and Fish Resources. [<http://www.paaf.gov.kw/>]. Accessed February 28 2021.
- [6] STA Law Firm. "A Guide to Distribution of Pharmaceutical Products in Kuwait 2019-2020". [https://www.stalawfirm.com/public/uploads/downloads/A_Guide_Distribution_of_pharmaceutical_products_in_Kuwait.pdf]. Accessed February 28 2021.
- [7] Yousef Abdulsalam. "Kuwait's Hundred Million Dollar Supply Management Opportunity". London School of Economics. [<https://blogs.lse.ac.uk/mec/2019/01/17/kuwaits-hundred-million-dollar-supply-management-opportunity/>]. Accessed February 28 2021.

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

Kuwait does not have a public plan to receive health personnel from other countries to respond to a public health emergency.

According to the Joint External Evaluation (JEE) assessment of Kuwait, published in May 2017, Kuwait has no plan for either sending or receiving health personnel in the event of a public health emergency, however, Kuwait has had significant experience in deploying specialists over the years throughout the region. Kuwaiti health specialists have been deployed to Iraq, Turkey, Lebanon, Libya, and Iran, and a roster of specialists for emergency deployment is updated periodically and can be officially requested through the Ministry of Health (MoH) [1].

Furthermore, the JEE notes that cooperation does take place through the Gulf Cooperation Council (GCC), which Kuwait is a member of. The Central Emergency and Crisis Management Committee of the MoH can request additional health personnel from GCC member states in the event of a public emergency. However, this function does not appear to be institutionalized as the JEE recommends formalizing plans, procedures, and standard operating procedures to support both the deployment and receiving of health personnel in order to ensure a timely and effective response [1]. A review of online web sources including the MoH, the General Civil Defence Department, and the Ministry of Interior webpages has not provided any further evidence [2, 3, 4].

[1] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [<https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11-eng.pdf?sequence=1&isAllowed=y>]. Accessed February 28 2021.

[2] Ministry of Health. [<https://www.moh.gov.kw/>]. Accessed February 28 2021.

[3] General Department of Civil Defence. [<https://www.moi.gov.kw/civildefense/index.aspx>]. Accessed February 28 2021.

[4] Ministry of Interior. [<https://www.moi.gov.kw/portal/varabic/>]. Accessed February 28 2021.

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

2015

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: 478.97

2017

WHO Global Health Expenditure database

4.4.2 Paid medical leave

4.4.2a

Are workers guaranteed paid sick leave?

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

Current Year Score: 2

2020

World Policy Analysis Center

4.4.3 Healthcare worker access to healthcare

4.4.3a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that shows that Kuwait 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.

According to a December 2020 article by Arab News, the health minister Sheikh Basel Al-Sabah said the "vaccine would be given out in four stages to prioritize those who need it most, and the first stage would include all health care providers, front-line workers and people aged over 65"[1].

An article by Bloomberg published on February 18, 2021, states that "Kuwait says it's prioritizing all frontline workers and those in high-risk groups"[2].

There is no mention of prioritized healthcare services to healthcare workers who become sick as a result of responding to a public health emergency. Conducting an online search at the Kuwait News Agency health section, the BBC, and CNN yields no additional information to show that Kuwait 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. [3, 4, 5]. Nor does the Ministry of Health website [6].

[1] Arab News. 22 December, 2020. "Kuwait to receive COVID-19 vaccine on Wednesday".

[<https://www.arabnews.com/node/1781281/middle-east>]. Accessed February 28, 2021.

[2] Fiona Macdonald. February 18, 2021. "Kuwait Puts Citizens Before Expats as Vaccine Push Stirs Anger". Bloomberg.

[<https://www.bloomberg.com/news/articles/2021-02-18/kuwait-puts-citizens-before-expats-as-vaccine-push-stirs-anger>].

Accessed February 28, 2021.

[3] Kuwait News Agency. [<https://www.kuna.net.kw/CategoryPage.aspx?id=117&language=en&new=1>]. Accessed February 28 2021.

[4] BBC. "Search Results- Kuwait". [<https://www.bbc.co.uk/news/topics/cp7r8vlgmjtkuwait>]. Accessed February 28 2021.

[5] CNN. "Search Results- Kuwait".

[<https://edition.cnn.com/search?size=10&q=kuwait&category=us,politics,world,opinion,health>]. Accessed February 28 2021.

[6] Ministry of Health. [<https://www.moh.gov.kw/>]. Accessed February 28 2021.

4.5 COMMUNICATIONS WITH HEALTHCARE WORKERS DURING A PUBLIC HEALTH EMERGENCY

4.5.1 Communication with healthcare workers

4.5.1a

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

Yes = 1 , No = 0

Current Year Score: 0

There is insufficient evidence that Kuwait has a system in place for public health officials and healthcare workers to communicate during a public health emergency.

According to Kuwait's Joint External Evaluation (JEE), published in May 2017, risk communications capacities and functions are undertaken in a formalized system under the Ministry of Health (MoH), with designated health focal points. Furthermore, the communication system is said to be multi-sectoral and engages with multiple stakeholders, with formal government arrangements to coordinate communication within the MoH, likely suggesting that communication systems are in place for public health officials and healthcare workers in MoH hospitals to communicate. However, the JEE notes that information sharing takes place with "a limited number of non-government stakeholders responsible for emergency responses"[1, 2].

Communication coordination is also tested on an annual basis, however, non-governmental stakeholders are not part of these exercises. Additionally, the JEE notes that there is no official national communication plan for emergency situations and a paucity of trained personnel. The JEE suggests further formalization of plans with more extensive coordination between all public health stakeholders at all levels will help to strengthen Kuwait's risk communications capacities [1].

A review of online sources including the Ministry of Health website and the General Department of Civil Defence, which is the coordinating entity in Kuwait responsible for the management of emergencies and disasters, has not provided any further information [3, 4].

[1] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [<https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11-eng.pdf?sequence=1&isAllowed=y>]. Accessed February 28 2021.

[2] World Health Organization. 2016. "Joint External Evaluation Tool ". 2016. [http://apps.who.int/iris/bitstream/10665/204368/1/9789241510172_eng.pdf]. Accessed February 28 2021.

[3] Ministry of Health. [<https://www.moh.gov.kw/>]. Accessed February 28 2021.

[4] General Department of Civil Defence. [<https://www.moi.gov.kw/civildefense/index.aspx>]. Accessed February 28 2021.

4.5.1b

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

Yes = 1 , No = 0

Current Year Score: 0

There is insufficient public evidence to suggest that Kuwait's system for risk communication encompasses both public and private sector healthcare workers.

According to Kuwait's Joint External Evaluation (JEE), published in May 2017, internal and partner communication and coordination exists but is scored a 3 out of 5, which indicates functionality in a limited capacity, and information with non-governmental stakeholders is reported as limited [1, 2]. The JEE report also includes a recommendation for formalizing a national coordination mechanism and involving the private sector and community organizations at all levels of risk communication, suggesting that this is not yet in place. The JEE adds that participation of the private sector and civil society organizations in emergency communications exercises should be made more frequent and expanded in scope [1].

A review of online sources including the Ministry of Health website and the General Department of Civil Defence, which is the

coordinating entity in Kuwait responsible for the management of emergencies and disasters, has not provided any further information [3, 4].

[1] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [<https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11-eng.pdf?sequence=1&isAllowed=y>]. Accessed February 28 2021.

[2] World Health Organization. 2016. "Joint External Evaluation Tool ". 2016.

[http://apps.who.int/iris/bitstream/10665/204368/1/9789241510172_eng.pdf]. Accessed February 28 2021.

[3] Ministry of Health. [<https://www.moh.gov.kw/>]. Accessed February 28 2021.

[4] General Department of Civil Defence. [<https://www.moi.gov.kw/civildefense/index.aspx>]. Accessed February 28 2021.

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: 1

There is evidence that the national public health system is monitoring and tracking the number of healthcare associated infections (HCAI) that take place in healthcare facilities.

According to Kuwait's Joint External Evaluation (JEE), published in May 2017, surveillance for healthcare associated infections in Kuwait has been in place for over than 30 years and effective infection control programmes are operational in Al Farwaniah and Ibn Sina hospitals with qualified personnel and solid surveillance infrastructure [1]. The Ministry of Health's (MoH) Infection Control Directorate website contains a section on surveillance of HCAI and states that this surveillance is carried out in all MoH hospitals. Data collected includes demographic profiles of infected patients, details relating to the infection (onset date, site of infection, patient care location of HCAI onset), risk factors, and laboratory specific data on pathogens, antibiograms etc. [2]. Specific surveillance programmes are in place for various HCAI including bloodstream infections, pneumonia, surgical site infections and urinary tract infections amongst others [2]. The directorate also has guidelines on identifying HCAI, as well as a 'process surveillance' systems in place [3, 4].

[1] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [<https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11-eng.pdf?sequence=1&isAllowed=y>]. Accessed February 28 2021.

[2] Ministry of Health - Infection Control Directorate. "Outcome Surveillance".

[http://www.icdkwt.com/surveillance_outcome.php]. Accessed February 28 2021.

[3] Ministry of Health - Infection Control Directorate. "Identifying Healthcare-associated Infections (HAI) for NHSN Surveillance". [http://www.icdkwt.com/surveillance_out/infection/KNHSS-identifying%20HAI%20-2015.pdf]. Accessed February 28 2021.

[4] Ministry of Health - Infection Control Directorate. "Process Surveillance".

[http://www.icdkwt.com/surveillance_process.php]. Accessed February 28 2021.

4.7 CAPACITY TO TEST AND APPROVE NEW MEDICAL COUNTERMEASURES

4.7.1 Regulatory process for conducting clinical trials of unregistered interventions

4.7.1a

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

Yes = 1 , No = 0

Current Year Score: 1

Kuwait has a national requirement for ethical review before beginning a clinical trial.

According to a 'pharmaceutical sector country profile questionnaire' for Kuwait, published by the WHO in 2013, "legal provisions exist requiring the agreement by an ethics committee/ institutional review board of the Clinical Trials to be performed" [1]. The report adds that clinical trials are not allowed unless a medical research higher committee reviews, accredits, and permits the trial which would take place under tight restrictions governing the conduct of the clinical study [1].

The Kuwait Institute for Medical Specialization (KIMS) is the national entity responsible for issuing research ethics guidelines and regulations in Kuwait according to an academic article published in BioMed Central (BMC) Medical Ethics journal in 2012, and a book titled "Research Ethics in the Arab Region" published in 2017 [2, 3, 4]. According to KIMS 'Ethical Guidelines for Biomedical Research', published in 2009, "all proposed clinical research, regardless of the source of support, should be approved by a review board to assure that the research plans are reasonable and that research participants are adequately protected" [2, 5].

Note that the link to KIMS' 'Ethical Guidelines for Biomedical Research' document, published in 2009, was out of service as of February 28, 2021. An online search for the document has yielded a study by the American University of Beirut (AUB) titled 'Challenges Facing Research Ethics Committees in the Arab Region', which provides a link to KIMS' 2009 document. However, this link is broken as well as of February 28, 2021 [6, 7].

The researcher is also obligated to obtain relevant clearance and approval from legal authorities for a research that is potentially risky to human subjects [8]. KIMS has established the Medical Research Ethics Committee for ethical review of biomedical research proposals involving human subjects, which is comprised of 3 academics, 2 consultants from the Ministry of Health and a lawyer. The committee is chaired by the Head of the Research Unit at KIMS, and meets on ad hoc basis [9, 10]. Members of this committee undertake a comprehensive ethical review, which includes the research protocol, consent form and the letter outlining the clinical trial's information for participating subjects [8]. Note that the Health Sciences Center (HSC) website is entirely out of service as of February 28, 2021. The "Joint Committee for the Protection of Human Subjects in Research" document could not be found elsewhere online.

[1] World Health Organization. 2013. "Pharmaceutical Sector Country Profile Questionnaire: Kuwait". [https://www.who.int/medicines/areas/coordination/Kuwait_country_profile-questionnaire2012-05-27edited.pdf]. Accessed February 28 2021.

[2] Ghiath Alahmad; Mohammad Al-Jumah and Kris Dierickx. 2012. "Review of national research ethics regulations and guidelines in Middle Eastern Arab countries". BMC Medical Ethics Vol. 13. [<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3576357/>]. Accessed February 28 2021.

- [3] Henry Silverman. 2017. "Research Ethics in the Arab Region". Springer International Publishing.
[<https://books.google.ae/books?id=pwdGDwAAQBAJ&pg=PA48&lpg=PA48&dq=KIMS+kuwait++clinical+trials+ethics+national+regulation&source=bl&ots=DqIOkeW8BM&sig=ACfU3U3xhMWSsbvkKq1i1L2-lekejG9H4g&hl=en&sa=X&ved=2ahUKEwin2J-53bLiAhULH5oKHeAMBq8Q6AEwBXoECAGQAQ#v=onepage&q=KIMS%20kuwait%20%20clinical%20trials%20ethics%20national%20regulation&f=false>]. Accessed February 28 2021.
- [4] Kuwait Institute for Medical Specialization. [<http://kims.org.kw/index.html>]. Accessed February 28 2021.
- [5] Kuwait Institute for Medical Specialization (KIMS). 2009. "Ethical Guidelines for Biomedical Research".
[https://firstclinical.com/regdocs/doc/?showpage=2&db=INT_Kuwait_Ethical_Guidelines_for_Biomedical_Research]. Accessed February 28 2021.
- [6] Silverman. "Challenges Facing Research Ethics Committees in the Arab Region". American University of Beirut.
[https://www.aub.edu.lb/fm/shbpbp/Documents/ChallengesinArabRECs_SilvermanI.pdf]. Accessed February 28 2021.
- [7] Kuwait Institute for Medical Specialization (KIMS). 2009. "Ethical Guidelines for Biomedical Research".
[<https://www.kims.org.kw/Ethical%202.doc>]. Accessed February 28 2021.
- [8] Kuwait Institute for Medical Specialization (KIMS). 2009. "Ethical Guidelines for Biomedical Research".
[https://firstclinical.com/regdocs/doc/?showpage=4&db=INT_Kuwait_Ethical_Guidelines_for_Biomedical_Research]. Accessed February 28 2021.
- [9] Kuwait Institute for Medical Specialization (KIMS). 2009. "Ethical Guidelines for Biomedical Research".
[https://firstclinical.com/regdocs/doc/?showpage=5&db=INT_Kuwait_Ethical_Guidelines_for_Biomedical_Research]. Accessed February 28 2021.
- [10] Abdul Mohsen Al-Abdulrazzak Health Sciences Center and Kuwait Institute for Medical Specialization. 2012. "Joint Committee for the Protection of Human Subjects in Research".
[<http://www.hsc.edu.kw/jc/EnglishForm/ETHICS%20COMMITTEE%20GUIDELINES-new2012.doc>]. Accessed February 28 2021.

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 publicly available evidence that Kuwait has an expedited process for approving clinical trials for unregistered medical countermeasures to treat ongoing pandemics.

According to the Kuwait Institute for Medical Specialization's (KIMS) 'Ethical Guidelines for Biomedical Research', published in 2009, " some research activities which involve human subjects may be exempted by the Medical Research Ethics Committee from the requirements of research on human subjects", however, the examples provided are "surveys on public behavior which do not expose human subjects to physical, social or psychological risks", suggesting that expedited processes are not in place [1].

Furthermore, the guidelines place a strong emphasis on human well-being and that of patients undergoing clinical trials, stating that "when an innovative therapy has no precedent, consultation with peers, an institutional review board, or another expert group is necessary to assess the risks of the innovation, the probable outcomes of not using a standard therapy, and whether the innovation is in the patient's best interest", further suggesting that expedited processes are not in place [2].

Note that the link to KIMS' 'Ethical Guidelines for Biomedical Research' document, published in 2009, was out of service as of February 28, 2021. An online search for the document has yielded a study by the American University of Beirut (AUB) titled

'Challenges Facing Research Ethics Committees in the Arab Region', which provides a link to KIMS' 2009 document. However, this link is broken as well as of February 28, 2021 [3, 4].

The Joint Committee for the Protection of Human Subjects in Research published guidelines in 2012, however, this too contains no mention of an expedited process for clinical trials in the event of an ongoing pandemic [5]. Note that the Health Sciences Center (HSC) website is entirely out of service as of February 28, 2021. The document could not be found elsewhere online. A review of the KIMS website as well as the Ministry of Health website has not provided any further evidence [6, 7].

- [1] Kuwait Institute for Medical Specialization (KIMS). 2009. "Ethical Guidelines for Biomedical Research". [https://firstclinical.com/regdocs/doc/?showpage=4&db=INT_Kuwait_Ethical_Guidelines_for_Biomedical_Research]. Accessed February 28 2021.
- [2] Kuwait Institute for Medical Specialization (KIMS). 2009. "Ethical Guidelines for Biomedical Research". [https://firstclinical.com/regdocs/doc/?showpage=2&db=INT_Kuwait_Ethical_Guidelines_for_Biomedical_Research]. Accessed February 28 2021.
- [3] Silverman. "Challenges Facing Research Ethics Committees in the Arab Region". American University of Beirut. [https://www.aub.edu.lb/fm/shbpb/Documents/ChallengesinArabRECs_Silverman.pdf]. Accessed February 28 2021.
- [4] Kuwait Institute for Medical Specialization (KIMS). 2009. "Ethical Guidelines for Biomedical Research". [<https://www.kims.org.kw/Ethical%202.doc>]. Accessed February 28 2021.
- [5] Abdul Mohsen Al-Abdulrazzak Health Sciences Center and Kuwait Institute for Medical Specialization. 2012. "Joint Committee for the Protection of Human Subjects in Research". [<http://www.hsc.edu.kw/jc/EnglishForm/ETHICS%20COMMITTEE%20GUIDELINES-new2012.doc>]. Accessed February 28 2021.
- [6] Kuwait Institute for Medical Specialization (KIMS). [<http://www.kims.org.kw/>]. Accessed February 28 2021.
- [7] Ministry of Health. [<https://www.moh.gov.kw/>]. Accessed February 28 2021.

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 public evidence to suggest that Kuwait has a government agency responsible for approving new medical countermeasures for humans.

Kuwait's Drug and Food Control Administration, which sits under the Ministry of Health, is the agency responsible for the registration and approval of new medications in the state of Kuwait [1]. The Administration has several departments for the registration of drugs for humans, drugs for animals, herbal products, food supplements and cosmetics. The pharmaceutical registration unit is the department responsible for the approval of all pharmaceutical products for human consumption [2]. While a review of the Drug and Food Control Administration website, including the 'Guidelines for the Registration of Pharmaceutical Products', do not specifically mention medical countermeasures, the administration is the agency that would likely be responsible for approving new medical countermeasures in humans [1, 3].

- [1] Drug and Food Control Administration. [<https://www.moh.gov.kw/en/Departments/5/5-6/5-6-6>]. Accessed February 28 2021.
- [2] Drug and Food Control Administration. "Conditions and Registration Process".

[<https://www.moh.gov.kw/en/Departments/5/5-6/5-6-6-6/%D8%B4%D8%B1%D9%88%D8%B7-%D9%88-%D8%A5%D8%AC%D8%B1%D8%A7%D8%A1%D8%A7%D8%AA-%D8%A7%D9%84%D8%AA%D8%B3%D8%AC%D9%8A%D9%84>]. Accessed February 28 2021.

[3] Drug and Food Control Administration. "Guidelines for Registration of Pharmaceutical Products - According to Ministerial Decree 302/80". [<https://www.moh.gov.kw/media/c6090cff-f5fa-4317-b660-2041036f036a/1634820049/KDFC/pharmaceuticalguidelines.zip>]. Accessed February 28 2021.

4.7.2b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that Kuwait has an expedited process for approving medical countermeasures for human use during public health emergencies .

A review of Kuwait's Drug and Food Control Administration's pharmaceutical unit's 'Guidelines for the Registration of Pharmaceutical Products', as well as a review of the publications under the 'Conditions and Registration Process' section of the website and the general information guidelines published have not provided any indication that an expedited process is in place for approving medical countermeasures for human use during a public health emergency, nor has there been specific mention of medical countermeasures [1, 2, 3].

The E-Health services section of the Ministry of Health website contains a section called 'request for registration drugs/ company/ certification' however the link was not working during the time of access [4, 5]. Kuwait has an Institute for Scientific Research (the Kuwait Institute for Scientific Research), however, there is no publicly available evidence that the Institute plays a role in approving medical countermeasures [6].

[1] Drug and Food Control Administration. "Guidelines for Registration of Pharmaceutical Products - According to Ministerial Decree 302/80". [<https://www.moh.gov.kw/media/c6090cff-f5fa-4317-b660-2041036f036a/1634820049/KDFC/pharmaceuticalguidelines.zip>]. Accessed February 28 2021.

[2] Drug and Food Control Administration. "Conditions and Registration Process". [<https://www.moh.gov.kw/en/Departments/5/5-6/5-6-6-6/%D8%B4%D8%B1%D9%88%D8%B7-%D9%88-%D8%A5%D8%AC%D8%B1%D8%A7%D8%A1%D8%A7%D8%AA-%D8%A7%D9%84%D8%AA%D8%B3%D8%AC%D9%8A%D9%84>]. Accessed February 28 2021.

[3] Drug and Food Control Administration. "Information and Databases". [<https://www.moh.gov.kw/Departments/5/5-6/5-6-6-6/%D9%85%D8%B9%D9%84%D9%88%D9%85%D8%A7%D8%AA-%D9%88%D9%82%D9%88%D8%A7%D8%B9%D8%AF-%D8%A8%D9%8A%D8%A7%D9%86%D8%A7%D8%AA>]. Accessed February 28 2021.

[4] Ministry of Health. "E-Health Services: Drug and Food Control Sector". [<https://www.moh.gov.kw/en/Online-Services/Drug-Food-Control>]. Accessed February 28 2021.

[5] Ministry of Health. "E-Health Services: Drug and Food Control Sector - Request for Registration: Drugs/ Company / Certification". [<https://www.moh.gov.kw/en/Online-Services/Drug-Food-Control/Registration-Request>]. Accessed February 28 2021.

[6] Kuwait Institute for Scientific Research. "About Us". [<http://www.kisr.edu.kw/en/discover-kisr/about-us/>]. Accessed February 28 2021.

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

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

5.1.1 Official IHR reporting

5.1.1a

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

Yes = 1 , No = 0

Current Year Score: 1

2020

World Health Organization

5.1.2 Integration of health into disaster risk reduction

5.1.2a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that Kuwait has a publicly available national disaster risk reduction strategy for pandemics.

According to the WHO's Health Profile for Kuwait, published in 2015, the Emergency Medical Services Directorate has developed disaster and evacuation plans in coordination with the Ministry of the Interior. Furthermore, all emergency response bodies in the Government, including the Emergency Medical Services and the Radiation Prevention Department of the Ministry of Health (MoH), Civil Defence (Ministry of the Interior), the Fire Department and the National Guard, have adopted their own preparedness plans to be ready for the threats of weapons of mass destruction. These plans were tested in 2014 [1].

No specific mention is made with regards to a national risk reduction strategy for pandemics. The report does, however, add that a coordinated health sector response plan has been agreed upon between the MoH, the Environment Public Authority, the public health authorities, and the medical emergency departments, however, it is unclear what the focus of this plan is. Additionally, the report states that in 2014 the Kuwaiti government began scaling up its preparedness for the Ebola virus by assessing and measuring their level of preparedness and readiness using the WHO assessment checklist and identifying critical gaps for improvement accordingly [1].

During a statement made by the Kuwaiti representative at the Global Platform for Disaster Risk Reduction in 2017, the

representative stated that following Kuwait's accession to the UN Office for Disaster Risk Reduction in 2017, Kuwait would form an official committee to follow up on implementing a national disaster risk reduction framework [2].

A review of online sources has not indicated that this committee has any publicly available information or that such a framework has come into effect. According to an article by the Kuwait Times in February of 2014, the GCC Emergency Center is also based in Kuwait, however it is unclear pandemics and health-specific emergencies specifically fall under the center's mandate. The link to the article is out of service as of March 1, 2021 [3].

Furthermore, as a member of the Arab League, Kuwait has committed to the "Arab Strategy for Disaster Risk Reduction 2020", which highlights pandemics as secondary risks in the region [4]. A review of online sources, including the websites of the Ministry of Health and the General Department of Civil Defence, which is the coordinating entity in Kuwait responsible for the management of emergencies and disasters, has not provided any further evidence [5, 6].

[1] World Health Organization. 2015. "Health Profile: Kuwait".

[http://applications.emro.who.int/dsaf/EMROPUB_2016_EN_19271.pdf?ua=1]. Accessed February 28 2021.

[2] Government of Kuwait. 2017. "Global Conference on Disaster Risk Reduction 22 May - 26 May 2017: Kuwait".

[<https://www.preventionweb.net/files/globalplatform/2017gpstatementkuwait.pdf>]. Accessed February 28 2021.

[3] Kuwait Times. 2nd February 2014. "GCC Emergency Center in Kuwait". [<http://news.kuwaittimes.net/gcc-emergency-center-kuwait/>]. Accessed February 28 2021.

[4] Council of Arab Ministers Responsible for the Environment. 2010. "The Arab Strategy for Disaster Risk Reduction 2020".

[https://www.unisdr.org/files/18903_17934asdrfinalenglishjanuary20111.pdf]. Accessed February 28 2021.

[5] Ministry of Health. [<https://www.moh.gov.kw/>]. Accessed February 28 2021.

[6] General Department of Civil Defence. [<https://www.moi.gov.kw/civildefense/index.aspx>]. Accessed February 28 2021.

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

5.2.1 Cross-border agreements

5.2.1a

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

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

Current Year Score: 0

There is insufficient evidence that Kuwait has cross-border agreements in place with regard to public health emergencies.

The Organization of Islamic Cooperation (OIC), an international organization comprised of 57 states including Kuwait, adopted the "OIC Strategic Health Programme of Action (SHPA) 2014-2023" with the aim of strengthening and enhancing collaboration in various health areas, including the prevention and control of diseases and pandemics and emergency health response and interventions [1, 2].

As a member of the Arab League, Kuwait committed in 2010 to "The Arab Strategy for Disaster Risk Reduction 2020", which mentions pandemics as a secondary risk [3]. Furthermore, according to the Joint External Evaluation (JEE) assessment of Kuwait, published in May 2017, the Gulf Cooperation Council (GCC) which Kuwait is a part of, has had experiences with medical countermeasures sent between member states in the event of a public health emergency, although it is unclear

whether there is a formal plan in place to facilitate this [4].

The JEE also notes that "through GCC collaboration, the Central Emergency and Crisis Management Committee of the Ministry of Health can request additional health personnel in the event of a public health emergency". Further, it states that "there is also demonstrated experience in sending medical countermeasures abroad during a public health emergency, both within the GCC (Potassium Iodine Tablets to Saudi Arabia) and internationally (medical assistance to Myanmar)". Lastly, the JEE mentions that "Kuwait also participates in the GCC Common Procurement, as well as benefits from Regional agreements and mechanisms in place for resource sharing - including procurement and human resources. Kuwait has never received medical countermeasures nor health personnel from abroad" [4].

Kuwait's Ministry of Health and the Public Authority of Agriculture and Fish Resources are stakeholders in the Gulf Health Council's Gulf Joint Procurement Program, whose mission is the "provision of high quality medicines, medical supplies and devices to member states and participating hospitals to the right location at the right time and from the registered manufacturers at fair prices"[5]. Among the Program's goals are ensuring "the continuous supply of medicines and medical supplies year-long via the use of supply batches", as well as opening "the door to other health sectors to secure their needs through the GCC unified procurement program"[5].

The GCC Secretariat General's website includes a section on cooperation in the field of health, however, there is no publicly available information regarding cross-border agreements with regards to public health emergencies [6] In light of the COVID-19 pandemic, and upon conducting an online search, there is no evidence that suggests that there are any gaps in implementation.

[1] Organization of Islamic Cooperation. "History". [https://www.oic-oci.org/page/?p_id=52&p_ref=26&lan=en]. Accessed 28 February 2021.

[2] Organization of Islamic Cooperation. 2013. "OIC Strategic Health Programme of Action 2014-2023 (OIC-SHPA)". [<http://www.sesric.org/files/article/480.pdf>]. Accessed 28 February 2021.

[3] Council of Arab Ministers Responsible for the Environment. 2010. "The Arab Strategy for Disaster Risk Reduction 2020". [https://www.unisdr.org/files/18903_17934asdrfinalenglishjanuary20111.pdf]. Accessed 28 February 2021.

[4] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [<https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11-eng.pdf?sequence=1&isAllowed=y>]. Accessed 28 February 2021.

[5] Gulf Health Council. "Gulf Joint Procurement Program". [<http://ghc.sa/en-us/Pages/gpintro.aspx>]. Accessed 28 February 2021.

[6] Secretariat General of the Gulf Cooperation Council. "Cooperation in the Field of Health". [<http://www.gcc-sg.org/en-us/CooperationAndAchievements/Achievements/CooperationinthefieldofHumanandEnvironmentAffairs/Pages/CooperationintheFiledofHealth.aspx>]. Accessed 28 February 2021.

5.2.1b

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

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

Current Year Score: 0

There is no publicly available evidence that Kuwait has cross-border agreements, protocols or MOU's with neighbouring countries with regards to animal health emergencies. Neither the Organization for Islamic Cooperation's "OIC Strategic Health Programme of Action (SHPA) 2014-2023", or the "Arab Strategy for Disaster Risk Reduction 2020", or the Gulf

Cooperation Council's agreements cover animal health specifically [1, 2, 3]. A review of the Ministry of Health, the Public Authority of Agriculture Affairs and Fish Resources and the General Department of Civil Defence webpages also provides no evidence of the existence of such an agreement [4, 5, 6]

[1] Organization of Islamic Cooperation. 2013. "OIC Strategic Health Programme of Action 2014-2023 (OIC-SHPA)".

[http://www.sesric.org/files/article/480.pdf]. Accessed 1 March 2021.

[2] Council of Arab Ministers Responsible for the Environment. 2010. "The Arab Strategy for Disaster Risk Reduction 2020".

[https://www.unisdr.org/files/18903_17934asdrfinalenglishjanuary20111.pdf]. Accessed 1 March 2021.

[3] Gulf Cooperation Council Secretary General. "Agreements". [http://www.gcc-sg.org/ar-

sa/CognitiveSources/Pages/Agreements.aspx]. Accessed 1 March 2021.

[4] Ministry of Health. [https://www.moh.gov.kw/en]. Accessed 1 March 2021.

[5] Public Authority of Agriculture Affairs and Fish Resources. [http://www.paaf.gov.kw/]. Accessed 1 March 2021.

[6] General Department of Civil Defence. [https://www.moi.gov.kw/civildefense/en/index.aspx]. Accessed 1 March 2021.

5.3 INTERNATIONAL COMMITMENTS

5.3.1 Participation in international agreements

5.3.1a

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

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

Current Year Score: 2

2021

Biological Weapons Convention

5.3.1b

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

Yes = 1, No = 0

Current Year Score: 0

2021

Biological Weapons Convention

5.3.1c

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

Yes = 1, No = 0

Current Year Score: 1

2021

Biological Weapons Convention

5.3.1d

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

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

Current Year Score: 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 publicly available information to show that Kuwait has allocated national funds to improve capacity to address epidemic threats within the past three years.

According to the Joint External Evaluation (JEE) assessment of Kuwait, published in May 2017, "overall, Kuwait has robust multi-hazard preparedness and response capabilities that are tested regularly through simulation exercises and evaluated"[1]. However, the JEE does not mention anything about allocated national funds to improve capacity to address epidemic threats within the past three years.

Kuwait's state budget does not provide information that shows that Kuwait has allocated national funds to improve capacity to address epidemic threats within the past three years. The Ministry of Finance's budget statements reveal that for the fiscal year 2019/2020, the Ministry of Health spent KD 2,588,530,000 (equivalent to USD 8.5 billion as of March 1, 2020) in Total Current expenses & Capital expenditures. As for the fiscal years 2018/2019 and 2017/2018, the respective values were KD 2,271,099,000 (equivalent to USD 7.5 billion as of March 1, 2020) and KD 1,973,744,000 (equivalent to USD 6.5 billion as of March 1, 2020) [2, 3, 4]. However, the budget statements do not reveal information to indicate that Kuwait has allocated national funds to improve capacity to address epidemic threats within the past three years.

The websites of the Ministry of Health, the Public Authority of Agriculture Affairs and Fish Resources, and the Ministry of Interior do not provide additional information in this regard [5, 6, 7].

[1] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [<https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11-eng.pdf?sequence=1&isAllowed=y>]. Accessed 28 February 2021.

[2] Ministry Of Finance. "The General Budget- The Fiscal Year 2019/2020". [<https://www.mof.gov.kw/MofBudget/PDF/Budget20-19eng.pdf>]. Accessed 28 February 2021.

[3] Ministry Of Finance. "The General Budget- The Fiscal Year 2018/2019". [<https://www.mof.gov.kw/MofBudget/PDF/BudgetEng19-18.pdf>]. Accessed 28 February 2021.

[4] Ministry Of Finance. "The General Budget- The Fiscal Year 2017/2018". [<https://www.mof.gov.kw/MofBudget/PDF/2017-2018-60.pdf>]. Accessed 28 February 2021.

[5] Ministry of Health. [<https://www.moh.gov.kw/en>]. Accessed 1 March 2021.

[6] Public Authority of Agriculture Affairs and Fish Resources. [<http://www.paaf.gov.kw/>]. Accessed 1 March 2021.

[7] Ministry of Interior. [<https://www.moi.gov.kw>]. Accessed 1 March 2021.

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 no publicly available evidence that Kuwait has identified the existence of special emergency public financing mechanism and funds to access during a public health emergency.

A review of the most recent publicly available health expenditure report by the Ministry of Health for the year 2012 does not contain specifics regarding financing for addressing public health emergencies, and neither does the Ministry of Finance's 'General Budget for the State of Kuwait' for fiscal year 2019-2020 [1, 2]. Kuwait is also not eligible for the World Bank's pandemic financing facility [3, 4].

According to the WHO's 2012-2016 Country Cooperation Strategy for Kuwait, the Government of Kuwait provides a large sum of money to the health sector and as a high-income country, Kuwait does not require financial support from external partners [5]. A review of online sources including the Ministry of Health website has not provided evidence of Kuwait allocating an emergency fund for domestic emergencies or establishing an agreement with a multilateral agency to do so [6].

[1] Ministry of Health. 2012. "National Health Accounts: Health Expenditure of Most Important Sectors in the State of Kuwait 2011 / 2012". [<https://www.moh.gov.kw/Renderers/ShowPdf.ashx?id=0eb6b421-8565-44a5-8866-7ac183326aa8>]. Accessed 28 February 2021.

[2] Ministry Of Finance. "The General Budget- The Fiscal Year 2019/2020". [<https://www.mof.gov.kw/MofBudget/PDF/Budget20-19eng.pdf>]. Accessed 28 February 2021.

[3] World Bank Group. "IDA". [<http://ida.worldbank.org/about/borrowing-countries>]. Accessed 28 February 2021.

[4] WB Pandemic Financing Facility. [<http://pubdocs.worldbank.org/en/119961516647620597/PEF-Operational-Brief-Dec-2017.pdf>]. Accessed 28 February 2021.

[5] World Health Organization Regional Office for the Eastern Mediterranean. 2014. "Country Cooperation Strategy for WHO and Kuwait 2012-2016".

[https://apps.who.int/iris/bitstream/handle/10665/113231/CCS_Kuwait_2014_EN_15234.pdf?sequence=1&isAllowed=y]. Accessed 28 February 2021.

[6] Ministry of Health. [<https://www.moh.gov.kw/>]. Accessed 28 February 2021.

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

5.5.4a

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

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

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

Current Year Score: 0

There is no publicly available evidence that senior officials in Kuwait, such as ministers, have made public commitments to support other countries' capacity to address epidemic threats by providing financing or support in the past three years; additionally, there is no publicly available evidence Kuwait has made such commitments to improve its own domestic capacity to address epidemic threats.

In July of 2018, the Kuwait News Agency reported that Kuwait's permanent representative to the UN and International Organizations, Jamal Al-Ghunaim, announced that Kuwait would cooperate with a number of international humanitarian organizations, including the WHO, in order to halt the cholera epidemic in Yemen [1].

Most Kuwaiti aid is funnelled through the Kuwait Fund for Arab Economic Development (KFAED), which is Kuwait's agency for the provision and administration of financial and technical assistance to developing countries [2]. However, a review of KFAED's 2017-2018 annual report, which is the latest published report published, does not specifically include announcements by senior officials in Kuwait regarding the provision of financing to improve capacity to address epidemics [3].

According to a 2020 Kuwait News Agency article, "Al-Ghunaim referred to the financial contributions made by Kuwait since the beginning of COVID-19 with the amount of USD 290 million which comes within the framework of Kuwait assuming responsibilities in supporting the international community tackling the pandemic"[4].

Regarding Kuwait's own domestic capacity, the most recent publicly available health expenditure report of the Ministry of Health is from 2012, and no mention is made by senior leaders regarding financing specifically for epidemics [5].

The Ministry of Finance's 'General Budget for the State of Kuwait' for fiscal year 2019-2020 also did not indicate a specific provision regarding financing for addressing epidemic threats [6]. According to the WHO's 2012-2016 Country Cooperation Strategy for Kuwait, the Government of Kuwait provides a large sum of money to the health sector and as a high income country Kuwait does not require financial support from external partners [7].

[1] Kuwait News Agency. 7th July 2018. "Kuwait to Hand Over Yemen's Humanitarian Commitments to Int'l Organizations". [<https://www.kuna.net.kw/ArticleDetails.aspx?id=2736021&language=en#>]. Accessed 28 February 2021.

[2] United Nations Office for the Coordination of Humanitarian Affairs. "Kuwait". [<https://www.unocha.org/middle-east-and-north-africa-romena/kuwait>]. Accessed 28 February 2021.

[3] Kuwait Fund for Arab Economic Development. 2017-2018. "Annual Report: 2017-2018". [<https://www.kuwait->

fund.org/documents/11433/13831/english++2017-2018+.pdf/08b0bdf0-4e40-48f6-be04-b57fadee71b4]. Accessed 28 February 2021.

[4] KUNA. 2020. "Kuwait says international community faces moral responsibility to challenges".

[https://www.kuna.net.kw/ArticleDetails.aspx?id=2929981&Language=en]. Accessed 28 February 2021.

[5] Ministry of Health. 2012. "National Health Accounts: Health Expenditure of Most Important Sectors in the State of Kuwait 2011 / 2012". [https://www.moh.gov.kw/Renderers/ShowPdf.ashx?id=0eb6b421-8565-44a5-8866-7ac183326aa8]. Accessed 28 February 2021.

[6] Ministry Of Finance. "The General Budget- The Fiscal Year 2019/2020".

[https://www.mof.gov.kw/MofBudget/PDF/Budget20-19eng.pdf]. Accessed 28 February 2021.

[7] World Health Organization Regional Office for the Eastern Mediterranean. 2014. "Country Cooperation Strategy for WHO and Kuwait 2012-2016".

[https://apps.who.int/iris/bitstream/handle/10665/113231/CCS_Kuwait_2014_EN_15234.pdf?sequence=1&isAllowed=y]. Accessed 28 February 2021.

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 Kuwait has provided other countries with financing or technical support to improve capacity to address epidemic threats in the past three years; additionally, there is no publicly available evidence Kuwait has requested financing or technical support from donors to improve the country's domestic capacity to address epidemic threats.

In July of 2018, Kuwait donated \$59 million to the World Health Organization (WHO) to help the people of Yemen obtain greater medical assistance [1]. While this comes during the midst of a cholera outbreak, the donation is not exclusively targeting Yemen's capacity to address cholera. In July of 2018, the Kuwait News Agency reported that Kuwait's permanent representative to the UN and International Organizations, Jamal Al-Ghunaim, announced that Kuwait would cooperate with a number of international humanitarian organizations, including the WHO, in order to halt the cholera epidemic in Yemen [2]. Most of the aid is funnelled through the Kuwait Fund for Arab Economic Development (KFAED), which is Kuwait's agency for the provision and administration of financial and technical assistance to developing countries [3]. However, a review of KFAED's 2017-2018 annual report, which is the latest published report published, does not specifically mention the provision of financing to improve capacity to address epidemics [4].

Furthermore, as a member of the Organization of Islamic Cooperation (OIC), the state of Kuwait has donated to the group's funds for fighting HIV/AIDS, Malaria and Tuberculosis in member states [5]. In light of the Covid-19 pandemic, Kuwait supported other regional and international countries in their response efforts in the ongoing pandemic [6]. According to a 2020 Kuwait News Agency article, "Al-Ghunaim referred to the financial contributions made by Kuwait since the beginning of COVID-19 with the amount of USD 290 million which comes within the framework of Kuwait assuming responsibilities in supporting the international community tackling the pandemic"[7]. According to the websites of the Ministry of Foreign Affairs, the United Nations/WHO pages, the Georgetown Infectious Disease Atlas (GIDA) Global Health Security Tracker, and the Ministry of Health, there is no information to indicate that Kuwait has publicly requested financing or technical support from donors to improve the country's domestic capacity to address epidemic threats [8, 9, 10, 11, 12]. Note that the

Georgetown Infectious Disease Atlas (GIDA) Global Health Security Tracker states that Kuwait provided USD 500,000 in disbursed funds in year 2019 [11].

- [1] World Health Organization. 26th July 2018. "WHO Thanks Kuwait for Generous Support to the People of Yemen". [<http://www.emro.who.int/media/news/who-thanks-kuwait-for-the-generous-support-to-the-people-of-yemen.html>]. Accessed 28 February 2021.
- [2] Kuwait News Agency. 7th July 2018. "Kuwait to Hand Over Yemen's Humanitarian Commitments to Int'l Organizations". [<https://www.kuna.net.kw/ArticleDetails.aspx?id=2736021&language=en#>]. Accessed 28 February 2021.
- [3] United Nations Office for the Coordination of Humanitarian Affairs. "Kuwait". [<https://www.unocha.org/middle-east-and-north-africa-romena/kuwait>]. Accessed 28 February 2021.
- [4] Kuwait Fund for Arab Economic Development. 2017-2018. "Annual Report: 2017-2018". [<https://www.kuwait-fund.org/documents/11433/13831/english++2017-2018+.pdf/08b0bdf0-4e40-48f6-be04-b57fadee71b4>]. Accessed 28 February 2021.
- [5] Organization of Islamic Cooperation. 2013. "OIC Health Report 2013". [<http://www.sesric.org/imgs/news/image/943-oic-health-report-en.pdf>]. Accessed 28 February 2021.
- [6] United Nations Office for the Coordination of Humanitarian Affairs. "Financial Tracking Service: Kuwait". [https://fts.unocha.org/countries/120/flows/2020?order=flow_property_simple_3&sort=asc&page=1#search-results]. Accessed 28 February 2021.
- [7] KUNA. 2020. "Kuwait says international community faces moral responsibility to challenges". [<https://www.kuna.net.kw/ArticleDetails.aspx?id=2929981&Language=en>]. Accessed 28 February 2021.
- [8] Ministry of Foreign Affairs. [https://www.mofa.gov.kw/en/media-center/official-statements/?from_date=2020-02-01&to_date=2020-04-01]. Accessed February 28 2021.
- [9] UN. "Kuwait- News". [<https://news.un.org/en/tags/kuwait>]. Accessed 1 March 2021.
- [10] WHO. "Kuwait". [<http://www.emro.who.int/countries/kuwait/index.html>]. Accessed February 28 2021.
- [11] Global Health Security Tracker. 2014-2020. [<https://tracking.ghscosting.org/details/979/recipient>]. Accessed February 28 2021.
- [12] Ministry of Health. [<https://www.moh.gov.kw/en>]. Accessed 1 March 2021.

5.5.4c

Is there evidence that the country has fulfilled its full contribution to the WHO within the past two years?

Yes = 1 , No = 0

Current Year Score: 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 insufficient publicly available evidence to indicate a public commitment by the Kuwaiti government to share genetic data, epidemiological data, clinical specimens, and/or isolated specimens with international organizations and/or other countries that goes beyond influenza. The Joint External Evaluation (JEE) assessment of Kuwait, published in May 2017, notes that Kuwait has agreements in place for conducting core WHO defined tests for which Kuwait does not have domestic capacity in international reference laboratories, however the JEE does not mention which laboratories [1]. Kuwait also participates in regional laboratory networks, which may suggest plans are in place within these networks for the sharing of clinical specimens. Examples include the Gulf Cooperation Council (GCC) Association for Laboratories (GCCLAB), which is an open network for laboratories and supporting companies operating in the GCC member states established in 2013. The network works to support joint work between GCC laboratories, build the technical capacity of emerging laboratories from member states, strengthen and benefit from the cooperation between member states on topics of mutual interest [2, 3]. Kuwait also participates in the Eastern Mediterranean Region Polio Laboratory Network (EPLN) [4]. A review of online sources has not yielded any further evidence, nor has a review of the Ministry of Health and the Public Authority of Agriculture Affairs and Fish Resources websites [5, 6]. Kuwait is also not yet party to the WHO's Global Antimicrobial Resistance Surveillance System (GLASS) [7].

[1] World Health Organization. May 2017. "Joint External Evaluation of IHR Core Capacities of the State of Kuwait, Mission Report: 14-18 May 2017". [<https://apps.who.int/iris/bitstream/handle/10665/272440/WHO-WHE-CPI-REP-2018.11-eng.pdf?sequence=1&isAllowed=y>]. Accessed 1 March 2021.

[2] GCC Standardization Organization website. "GCCLAB: Objectives". [<https://www.gso.org.sa/en/conformity/gulf-association-for-laboratories/>]. Accessed 1 March 2021.

[3] GCC Standardization Organization website. "Second GCC Conference on Laboratory Competence". [<https://www.gso.org.sa/ar/media/seminars-conferences/the-2nd-gcc-conference-for-laboratory-proficiency/>]. Accessed 1 March 2021.

[4] World Health Organization website. "The Eastern Mediterranean Region Polio Laboratory Network (EPLN)". [<http://www.emro.who.int/polio/strategy-surveillance/polio-laboratory-network.html>]. Accessed 1 March 2021.

[5] Ministry of Health. [<https://www.moh.gov.kw/en>]. Accessed 1 March 2021.

[6] Public Authority of Agriculture Affairs and Fish Resources. [<http://www.paaf.gov.kw/>]. Accessed 1 March 2021.

[7] World Health Organization. 2017-2018. "Global Antimicrobial Resistance Surveillance System (GLASS) Report, Early Implementation". [<http://apps.who.int/iris/bitstream/handle/10665/279656/9789241515061-eng.pdf?sequence=1&isAllowed=y>]. Accessed 1 March 2021.

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 public evidence that Kuwait has not shared samples in accordance with the Pandemic Influenza Preparedness (PIP) Framework in the past two years. According to the World Health Organization (WHO), in May 2018, influenza A(H1N1) and influenza B virus were both detected in Kuwait [1]. Kuwait's country profile on WHO website and recent news announcements do not indicate that Kuwait has not shared samples over the past few years [2]. Upon conducting an online search, including at the Kuwait News Agency health section, the BBC, and CNN, there is no publicly available evidence that Kuwait has not shared samples in accordance with the Pandemic Influenza Preparedness (PIP) Framework in the past two years [3, 4, 5].

[1] World Health Organization Regional Office for the Eastern Mediterranean. May 2018. "Epidemic and pandemic-prone diseases - Influenza Monthly Update, May 2018".

[http://www.emro.who.int/images/stories/csr/Influenza_Monthly_Update__May_2018.pdf?ua=1]. Accessed February 28 2021.

[2] World Health Organization. "Kuwait". [<https://www.who.int/countries/kwt/en/>]. Accessed February 28 2021.

[3] Kuwait News Agency. [<https://www.kuna.net.kw/CategoryPage.aspx?id=117&language=en&new=1>]. Accessed February 28 2021.

[4] BBC. "Search Results- Kuwait". [<https://www.bbc.co.uk/news/topics/cp7r8vglgmjt/kuwait>]. Accessed February 28 2021.

[5] CNN. "Search Results- Kuwait".

[<https://edition.cnn.com/search?size=10&q=kuwait&category=us,politics,world,opinion,health>]. Accessed February 28 2021.

5.6.1c

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

Yes = 0, No = 1

Current Year Score: 1

There is no publicly available evidence that Kuwait did not share pandemic pathogen samples during an outbreak in the past two years. In light of the COVID-19 pandemic, a review of Kuwait's country profile on the World Health Organization website, as well as media sources including the Kuwait News Agency health section, the BBC, and CNN, has not indicated that Kuwait has not shared pandemic pathogen samples during an outbreak in the past two years [1, 2, 3, 4]. On the contrary, an April 2020 article by the Kuwait News Agency highlights the World Health Organization's praise of Kuwait's swift response to the COVID-19 pandemic, as well as Kuwait's high-level coordination with the WHO [5].

[1] World Health Organization. "Kuwait". [<https://www.who.int/countries/kwt/en/>]. Accessed February 28 2021.

[2] Kuwait News Agency. [<https://www.kuna.net.kw/CategoryPage.aspx?id=117&language=en&new=1>]. Accessed February 28 2021.

[3] BBC. "Search Results- Kuwait". [<https://www.bbc.co.uk/news/topics/cp7r8vglgmjt/kuwait>]. Accessed February 28 2021.

[4] CNN. "Search Results- Kuwait".

[<https://edition.cnn.com/search?size=10&q=kuwait&category=us,politics,world,opinion,health>]. Accessed February 28 2021.

[5] KUNA. April 2020. "WHO Praises Kuwait's Swift Response to Coronavirus Pandemic".

[<https://www.kuna.net.kw/ArticleDetails.aspx?id=2886534&language=en#>]. Accessed February 28 2021.

Category 6: Overall risk environment and vulnerability to biological threats

6.1 POLITICAL AND SECURITY RISK

6.1.1 Government effectiveness

6.1.1a

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

Input number

Current Year Score: 2

2020

Economist Intelligence

6.1.1b

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

Input number

Current Year Score: 1

2020

Economist Intelligence

6.1.1c

Excessive bureaucracy/red tape (Economist Intelligence score; 0-4, where 4=best)

Input number

Current Year Score: 2

2020

Economist Intelligence

6.1.1d

Vested interests/cronyism (Economist Intelligence score; 0-4, where 4=best)

Input number

Current Year Score: 1

2020

Economist Intelligence

6.1.1e

Country score on Corruption Perception Index (0-100, where 100=best)

Input number

Current Year Score: 42

2020

Transparency International

6.1.1f

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

Input number

Current Year Score: 2

2020

Economist Intelligence

6.1.1g

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

Input number

Current Year Score: 1

2020

Economist Intelligence

6.1.2 Orderly transfers of power

6.1.2a

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

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

Current Year Score: 1

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: 2

2021

Economist Intelligence

6.1.4 Illicit activities by non-state actors

6.1.4a

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

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

Current Year Score: 2

2021

Economist Intelligence

6.1.4b

What is the level of illicit arms flows within the country?

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

Current Year Score: 4

2020

UN Office of Drugs and Crime (UNODC)

6.1.4c

How high is the risk of organized criminal activity to the government or businesses in the country?

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

Current Year Score: 3

2021

Economist Intelligence

6.1.5 Armed conflict

6.1.5a

Is this country presently subject to an armed conflict, or is there at least a moderate risk of such conflict in the future?

No armed conflict exists = 4, Yes; sporadic conflict = 3, Yes; incursional conflict = 2, Yes, low-level insurgency = 1, Yes; territorial conflict = 0

Current Year Score: 4

2021

Economist Intelligence

6.1.6 Government territorial control

6.1.6a

Does the government's authority extend over the full territory of the country?

Yes = 1, No = 0

Current Year Score: 1

2021

Economist Intelligence

6.1.7 International tensions

6.1.7a

Is there a threat that international disputes/tensions could have a negative effect?

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

Current Year Score: 2

2021

Economist Intelligence

6.2 SOCIO-ECONOMIC RESILIENCE

6.2.1 Literacy

6.2.1a

Adult literacy rate, population 15+ years, both sexes (%)

Input number

Current Year Score: 96.06

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: 0.76

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: 0.03

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: 0

The share of employment in the informal sector in Kuwait is unknown; however, publicly available evidence suggests that the portion of employment in the informal sector in Kuwait is estimated at levels below 25%.

According to the ILO's study titled "The Kuwaiti Labour Market and Foreign Workers: Understanding the Past and Present to Provide a Way", "throughout the GCC there has been a 'race to the bottom' for employment paying very low wages. This is largely a result of almost unlimited supplies of unskilled and semi-skilled labour from Asia. Cultural or traditional barriers have also acted to self-exclude nationals from jobs in the service sector such as taxi-drivers, food-service clerks and all forms of household work that may be considered below that of native Kuwaiti to undertake and therefore they are the domain of foreign workers. Given the size of the low wage and informal employment sectors

across the GCC there is surprisingly little data or research on these sectors"[1]. According to an article by GoingKuwaiti in 2014, "Like any country, Kuwait has always had a small, informal economy. From air conditioning repairmen to door-to-door soda sellers there has always been the local seamstresses, the neighborhood baqala and the roaming street vendors. What's new today is the sheer number - and the growing preference for going the informal route. With the growth of farmer's markets and single day bazaar events, many young entrepreneurs don't even need or want a formal license to do business"[2].

The Arab NGO Network for Development's 2016 publication, "Informal Employment", did not reveal the share of employment in the informal sector in Kuwait [3]. Other sources such as the ILOSTAT database and the World Bank fail to provide any measures of the share of employment in the informal sector in Kuwait.

[1] ILO. 2014. "The Kuwaiti Labour Market and Foreign Workers: Understanding the Past and Present to Provide a Way". [https://www.ilo.org/wcmsp5/groups/public/---arabstates/---ro-beirut/documents/meetingdocument/wcms_330314.pdf]. Accessed February 28 2021.

[2] Going Kuwaiti. 2014. "What's behind the growth of Kuwait's informal economy". [http://goingkuwaiti.com/whats-behind-the-growth-of-kuwait's-informal-economy/]. Accessed February 28 2021.

[3] Arab NGO Network for Development (ANND). "Informal Employment". 2016. [https://www.fordfoundation.org/media/4555/arab-watch-on-economic-and-social-rights-2016-informal-labor.pdf]. Accessed February 28 2021.

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: 1

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: 3

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: 3

2021

Economist Intelligence

6.3.3 Adequacy of power network

6.3.3a

What is the risk that power shortages could be disruptive?

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

Current Year Score: 1

2021

Economist Intelligence

6.4 ENVIRONMENTAL RISKS

6.4.1 Urbanization

6.4.1a

Urban population (% of total population)

Input number

Current Year Score: 100

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: 0.02

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: 75.4

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: 324.4

2019

WHO

6.5.1c

Population ages 65 and above (% of total population)

Input number

Current Year Score: 2.76

2019

World Bank

6.5.1d

Prevalence of current tobacco use (% of adults)

Input number

Current Year Score: 22.1

2018

World Bank

6.5.1e

Prevalence of obesity among adults

Input number

Current Year Score: 37.9

2016

WHO

6.5.2 Access to potable water and sanitation

6.5.2a

Percentage of homes with access to at least basic water infrastructure

Input number

Current Year Score: 99

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: 3230.3

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: 2

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: 2

2018

Wellcome Trust Global Monitor 2018