

# United Arab Emirates

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

<b>CATEGORY 1: PREVENTING THE EMERGENCE OR RELEASE OF PATHOGENS WITH POTENTIAL FOR INTERNATIONAL CONCERN</b>	<b>4</b>
1.1 Antimicrobial resistance (AMR)	4
1.2 Zoonotic disease	8
1.3 Biosecurity	15
1.4 Biosafety	24
1.5 Dual-use research and culture of responsible science	27
1.6 Immunization	30
<b>CATEGORY 2: EARLY DETECTION AND REPORTING FOR EPIDEMICS OF POTENTIAL INTERNATIONAL CONCERN</b>	<b>31</b>
2.1 Laboratory systems strength and quality	31
2.2 Laboratory supply chains	34
2.3 Real-time surveillance and reporting	36
2.4 Surveillance data accessibility and transparency	39
2.5 Case-based investigation	46
2.6 Epidemiology workforce	49
<b>CATEGORY 3: RAPID RESPONSE TO AND MITIGATION OF THE SPREAD OF AN EPIDEMIC</b>	<b>52</b>
3.1 Emergency preparedness and response planning	52
3.2 Exercising response plans	55
3.3 Emergency response operation	58
3.4 Linking public health and security authorities	59
3.5 Risk communications	61
3.6 Access to communications infrastructure	64

3.7 Trade and travel restrictions	65
-----------------------------------	----

**CATEGORY 4: SUFFICIENT AND ROBUST HEALTH SECTOR TO TREAT THE SICK AND PROTECT HEALTH WORKERS 67**

4.1 Health capacity in clinics, hospitals, and community care centers	67
---	----

4.2 Supply chain for health system and healthcare workers	70
---	----

4.3 Medical countermeasures and personnel deployment	76
--	----

4.4 Healthcare access	78
-----------------------	----

4.5 Communications with healthcare workers during a public health emergency	80
---	----

4.6 Infection control practices and availability of equipment	82
---	----

4.7 Capacity to test and approve new medical countermeasures	83
--	----

**CATEGORY 5: COMMITMENTS TO IMPROVING NATIONAL CAPACITY, FINANCING PLANS TO ADDRESS GAPS, AND ADHERING TO GLOBAL NORMS 86**

5.1 International Health Regulations (IHR) reporting compliance and disaster risk reduction	86
---	----

5.2 Cross-border agreements on public health and animal health emergency response	87
---	----

5.3 International commitments	89
-------------------------------	----

5.4 Joint External Evaluation (JEE) and Performance of Veterinary Services Pathway (PVS)	91
--	----

5.5 Financing	92
---------------	----

5.6 Commitment to sharing of genetic and biological data and specimens	95
--	----

**CATEGORY 6: OVERALL RISK ENVIRONMENT AND VULNERABILITY TO BIOLOGICAL THREATS 98**

6.1 Political and security risk	98
---------------------------------	----

6.2 Socio-economic resilience	102
-------------------------------	-----

6.3 Infrastructure adequacy	104
-----------------------------	-----

6.4 Environmental risks	105
-------------------------	-----

6.5 Public health vulnerabilities	106
-----------------------------------	-----

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

### 1.1 ANTIMICROBIAL RESISTANCE (AMR)

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

##### 1.1.1a

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

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

**Current Year Score: 2**

The UAE has a national antimicrobial resistance (AMR) plan for surveillance, detection, and reporting of priority AMR pathogens.

As per publicly available evidence on the Ministry of Health and Prevention's website (MOHAP), the UAE Higher Committee for Antimicrobial Resistance was established in April 2014 and subsequently formulated as the National AMR Committee in 2016. MOHAP assigned the committee with the task of developing the National Action Plan on AMR in line with the Global Action Plan on AMR (GAP-AMR) by May 2017 [1].

According to the Joint External Evaluation (JEE), completed in March 2017, the development of the National Action Plan for the human sector, noting that "subcommittees are working on AMR surveillance, infection prevention and control (IPC) and antimicrobial stewardship programs." The report specifically mentions that all WHO priority pathogens ("Escherichia coli, Klebsiella pneumoniae, Staphylococcus aureus, Streptococcus pneumoniae, Salmonella spp., Shigella spp., Neisseria gonorrhoeae, Acinetobacter baumannii and many more") are detected as part of the National Action Plan and are reported. Furthermore, the plan notes that "ongoing surveillance of AMR pathogens, based on routine clinical sampling, is conducted and reported (using WHONET, a web-based database for the management and analysis of microbiology laboratory data) to the concerned authorities and to National Subcommittee for AMR Surveillance" [4]. The actual Action Plan document is provided on the World Health Organization's (WHO) Library of National Action Plans [2]. With regard to reporting, one of the core components of the plan is monitoring and evaluation, wherein the plan covers reporting methods for AMR data. It entrusts the responsibility of establishing standards for reporting to the sub-committee for AMR surveillance [2].

A couple of examples of the surveillance, detection, and reporting of AMR pathogens using WHONET was found in The Abu Dhabi Antimicrobial Resistance Surveillance Program as well as the application of the National Action Plan at the Emirate level in the health department's Standard for Antimicrobial Stewardship Programs [5,6].

[1] Ministry of Health and Prevention. "The UAE Higher Committee on AMR: the UAE National Action Plan for AMR". [http://www.icamr-uae.com/presentations/national-amr-plan-wide.pdf]. Accessed 16 January 2021.

[2] World Health Organization (WHO). United Arab Emirates: National strategy and action plan for combatting antimicrobial resistance (NAP-AMR). [https://www.who.int/publications/m/item/united-arab-emirates-national-strategy-and-action-plan-for-combatting-antimicrobial-resistance-(nap-amr)]. Accessed 18 February 2021.

[3] Ministry of Health and Prevention. "Public Health Policies". [https://www.mohap.gov.ae/en/aboutus/Pages/HealthPolicies.aspx]. Accessed 16 January 2021.

[4] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the United Arab Emirates".

[<https://apps.who.int/iris/bitstream/handle/10665/259456/WHO-WHE-CPI-REP-2017.57-eng.pdf?sequence=1&isAllowed=y>].

[5] Health Authority of Abu Dhabi. 2013. "The Abu Dhabi Antimicrobial Resistance Surveillance Program (ADARS)".

[[http://saudimmid.com/images/papers/the\\_abu\\_dhabi\\_antimicrobial\\_resistance\\_surveillance\\_program.pdf](http://saudimmid.com/images/papers/the_abu_dhabi_antimicrobial_resistance_surveillance_program.pdf)]. Accessed 16 January 2021.

[6] Abu Dhabi, Department of Health (HAAD). 2017. "DOH Standard for Antimicrobial Stewardship Programs"

[[https://www.haad.ae/HAAD/LinkClick.aspx?fileticket=0\\_U\\_cHm0qis%3D&tabid=819](https://www.haad.ae/HAAD/LinkClick.aspx?fileticket=0_U_cHm0qis%3D&tabid=819)]. Accessed 16 January 2020.

### 1.1.1b

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

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

**Current Year Score: 2**

Evidence was found that there is a national laboratory/laboratory system that tests for priority AMR pathogens. According to the Joint External Evaluation report (JEE), completed in March 2017, "human laboratories in each authority (more than 150 labs in the UAE) have the capacity to identify and do susceptibility testing for all priority AMR pathogens listed by the World Health Organization (WHO) (Escherichia coli, Klebsiella pneumoniae, Staphylococcus aureus, Streptococcus pneumoniae, Salmonella spp., Shigella spp., Neisseria gonorrhoeae, Acinetobacter baumannii) and many more". Moreover, the report that "for the animal sector, all AMR priority pathogens can be detected in designated and accredited veterinary laboratories." It also notes that "all licensed hospitals and laboratories are capable of identification and antimicrobial susceptibility testing of all priority pathogens". According to the JEE, the system also has designated sentinel sites [1]. As per the Global Antimicrobial Resistance Surveillance System (GLASS) Report, which is prepared by the WHO, UAE has over 101 surveillance sites, with 16 laboratories that perform Aspartate aminotransferase (AST), external quality assessment (EQA) provided to some lab for bacterial identification, AST of a few GLASS pathogens [2]. Furthermore, evidence was found that UAE has a system that tests for Mycobacterium tuberculosis, as per the national reference laboratory: "The Center of Excellence for Tuberculosis Testing implements all quality performance standards required to safely and effectively culture Mycobacterium tuberculosis, the causative agent for Tuberculosis (TB). To perform such testing, NRL has ensured that its laboratory—with intricate design, containment, and equipment capabilities—comply with requirements for a Biosafety Level 3 (BSL-3) laboratory. This set up will enable NRL to also test for other diseases of global concern, such as SARS Coronavirus, Brucella, and Yellow fever.

NRL is one of the first standalone reference laboratories based in the UAE to offer a comprehensive TB test menu in a single one-stop-shop location. The high-quality liquid culture TB testing methodology that is used at our center can accurately identify a positive result within 7 days and a true negative in six weeks versus traditional methods which can take up to 8 weeks" [3].

[1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the United Arab Emirates".

[<https://apps.who.int/iris/bitstream/handle/10665/259456/WHO-WHE-CPI-REP-2017.57-eng.pdf?sequence=1&isAllowed=y>]. Accessed 17 January 2021.

[2] WHO, the Global Antimicrobial Resistance Surveillance System (GLASS) Report. [[https://www.who.int/docs/default-source/searo/amr/global-antimicrobial-resistance-surveillance-system-\(glass\)-report-early-implementation-2016-2017.pdf?sfvrsn=ea19cc4a\\_2](https://www.who.int/docs/default-source/searo/amr/global-antimicrobial-resistance-surveillance-system-(glass)-report-early-implementation-2016-2017.pdf?sfvrsn=ea19cc4a_2)]. Accessed 17 January 2021.

[3] National Reference Laboratory, Centers of Excellence, Tuberculosis Testing.

[<https://www.nrl.ae/en/contents/view/tuberculosis-testing.html>]. Accessed 19 February 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 conducts detection or surveillance activities (e.g., in soil, waterways, etc.) for antimicrobial residues (AMR) or AMR organisms.

The Ministry of Climate Change and Environment (MCCE), as noted in the Joint External Evaluation report (JEE) completed in March 2017, is a member of the National AMR Committee. However, insufficient evidence is available in the report on the MCCE's AMR-specific activities in this committee as particularly related to the detection and surveillance of AMR in soil and waterways, etc. It only mentions the MCCE's animal-sector-related activities and the surveillance of food-borne pathogens. Moreover, there is surveillance in water, soil, and air but for radiological events and nuclear emergencies only [1].

No evidence could be found on the MCCE website [2,3]. In April 2014, the Higher Committee for Antimicrobial Resistance was established and subsequently formulated as the National AMR Committee in 2016. The committee developed the National Action Plan on AMR in line with the Global Action Plan on AMR (GAP-AMR) in 2017. However, the actual action plan document could not be found on either the World Health Organization (WHO) Library of National Action Plans or the website of the Ministry of Health [4,5].

[1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the United Arab Emirates". [https://apps.who.int/iris/bitstream/handle/10665/259456/WHO-WHE-CPI-REP-2017.57-eng.pdf?sequence=1&isAllowed=y]. Accessed on 17 January 2021.

[2] Ministry of Climate Change and Environment the UAE. "Legislations". [https://www.moccae.gov.ae/en/legislations.aspx]. Accessed 17 January 2021.

[3] Ministry of Climate Change and Environment. "Knowledge". [https://www.moccae.gov.ae/en/open-data.aspx#page=1]. Accessed 17 January 2021.

[4] Ministry of Health and Prevention. 2019. "UAE Higher Committee on AMR: The UAE National Action Plan for AMR". [http://www.icamr-uae.com/presentations/national-amr-plan-wide.pdf]. Accessed 17 January 2021.

[4] World Health Organization (WHO). "Library of National Action Plans". [https://www.who.int/antimicrobial-resistance/national-action-plans/library/en/]. Accessed 17 January 2021.

[5] Ministry of Health and Prevention. "Public Health Policies". [https://www.mohap.gov.ae/en/aboutus/Pages/HealthPolicies.aspx]. Accessed 16 January 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**

There is evidence that there is national legislation in place requiring prescriptions for antibiotic use for humans and there is evidence of gaps in enforcement.

According to the Joint External Evaluation report (JEE) for the UAE, completed in March 2017, there is a decree in place,

issued by the Ministry of Health and Prevention (MOHAP), which classifies antibiotics as prescription-only medicine; however, "over-the-counter dispensing is still practiced", the report adds [1].

In November 2017 MOHAP and the Chairman of the National Pharmacovigilance Council announced that "the ministry intends to issue "a new health legislation", namely Regulation of the Profession of Pharmacy to put an end to the dangerous practice of dispensing antibiotics without medical prescription." According to the latest news, there is a draft Federal Law on "Regulation of the Profession of Pharmacy" that addresses the issue of medicines that must be dispensed of only by prescription—Legislation No. 394 in 2015 [2,3].

Neither the draft law nor the "new health legislation" that the MOHAP intends to issue could be found on the MOHAP website. Moreover, no evidence could be found on the World Health Organisation (WHO) Library of National Action Plans [4,5].

Due to the efforts of the Ministry of Health and Prevention (MOHAP) in cooperation with private and public health bodies, the use of antibiotics has decreased by 43% according to recent studies conducted at Sheikh Khalifa Hospital in Abu Dhabi, Al Rand further said [6].

Furthermore, as per a 2019 paper published in the US National Library of Medicine institute of health, 31.7% of a sample that was collected with the aim of getting an indication on self-medication reported the use of non-prescription antibiotics within a three-month study period. Moreover, the study concludes that there is a high prevalence of self-medication behavior even with the enforcement of the legislation [7]. As per an article published in Khaleeji times, 68% of pharmacies in Abu Dhabi sell antibiotics without a prescription [8].

[1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the United Arab Emirates". [https://apps.who.int/iris/bitstream/handle/10665/259456/WHO-WHE-CPI-REP-2017.57-eng.pdf?sequence=1&isAllowed=y]. Accessed 17 January 2021.

[2] Ministry of Health and Prevention. 19 November 2017. "Ministry of Health and Prevention Issues Warning against Dispensing Antibiotics without Medical Prescription". [https://www.mohap.gov.ae/ar/OpenData/Pages/default.aspx]. Accessed 17 January 2021.

[3] Ali Zain A. "Unregulated Antibiotic Use Could Kill 10 Million People by 2050". [https://www.khaleejtimes.com/news/uae-health//unregulated-antibiotic-use-could-kill-10-million-people-by-2050]. Accessed 17 January 2021.

[4] World Health Organization (WHO). "Library of National Action Plans". [https://www.who.int/antimicrobial-resistance/national-action-plans/library/en/] Last Accessed on 16 January 2021.

[5] Ministry of Health and Prevention. "Public Health Policies". [https://www.mohap.gov.ae/en/aboutus/Pages/HealthPolicies.aspx]. Accessed 16 January 2021.

[6] Ministry of Health and Prevention (MoHAP). [https://www.mohap.gov.ae/en/MediaCenter/News/Pages/2070.aspx]. Accessed 17 January 2021.

[7] Elzowalaty, Alzoubi, Ghazali, Othman and Abdelkareem. November 2019. "Prevalence Of Self-Medication With Antibiotics Among Residents In United Arab Emirates". [https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6850897/]. Accessed 23 January 2021.

[8] Zain, Ali, Khaleeji Times. March 2018. "Unregulated Antibiotic Use Could Kill 10 Million People by 2050". [https://www.khaleejtimes.com/news/uae-health//unregulated-antibiotic-use-could-kill-10-million-people-by-2050].

### **1.1.2b**

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

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

**Current Year Score: 2**

Evidence was found that there is national legislation or regulation in place requiring prescriptions for antibiotic use for animals and no evidence could be found of gaps in enforcement. According to the Joint External Evaluation (JEE) report on the UAE, completed in March 2017, "regulation mandates prescription of antibiotics for livestock" [1]. These regulations include the Federal Law No. 10 issued in 2002 for Practicing the Profession of Veterinary Medicine. Article 21 of the law states that it is not allowed to prepare, give, or change medical prescription except by a veterinarian [2]. No further evidence could be found in the Federal Law No. 9 of 2017 on Veterinary Products, the Ministry of Health and Prevention, or the Ministry of Climate Change and Environment [3,4,5].

[1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the United Arab Emirates". [https://apps.who.int/iris/bitstream/handle/10665/259456/WHO-WHE-CPI-REP-2017.57-eng.pdf?sequence=1&isAllowed=y]. Accessed 18 January 2021.

[2] Ministry of Climate Change and Environment. "Practicing the Profession of Veterinary Medicine". [www.moccae.gov.ae/assets/download/e8831611/law\_book\_with\_new\_cover.aspx]. Accessed 18 January 2021.

[3] Ministry of Climate Change and Environment. 2017. "Regulation of Veterinary Products". [https://www.moccae.gov.ae/en/media-center/news/16/10/2017/uae-president-issues-federal-law-no-9-of-2017-for-regulation-of-veterinary-products.aspx#page=1]. Accessed 18 January 2021.

[4] The Ministry of health and prevention [https://www.mohap.gov.ae/]. Accessed 19 February 2021.

[5] The Ministry of Climate change and Environment [https://www.moccae.gov.ae/en/home.aspx]. Accessed 19 February 2021.

## 1.2 ZOO NOTIC DISEASE

### 1.2.1 National planning for zoonotic diseases/pathogens

#### 1.2.1a

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

Yes = 1, No = 0

**Current Year Score: 1**

There is publicly available evidence that the UAE has a series of national laws on zoonotic disease. These include Animal Health Law No. 8 of 2013 on the Prevention and Control of Contagious Animal Diseases and Epidemics (list of notifiable animal diseases). The law regulates the reporting of animal diseases, the prevention procedures for animal diseases, control of animal diseases, penalties and general provisions enforced by By-Law No. 14 of 2014. There is a National Plan for Animal Health 2015-25, with a focus on emerging zoonotic threats such as MERS-CoV, National Plan for Control and Eradication of Brucellosis and a Animal Welfare Law No. 16 issued in 2007, which regulates the disposals of animals to control epidemic diseases and medical treatment of animals, All these documents refer to zoonoses as a risk to human health [2,3].

[1] Government of the UAE. Federal Law No. 8 of 2013. "On the Prevention and Control of Contagious and Epidemic Animal Diseases". [https://fsvps.gov.ae/fsvps-docs/ru/importExport/oae/files/law\_oae\_8.pdf]. Accessed 18 January 2021.

[2] Food and Agriculture Organisation of the United Nations (FAO). 2016. "The UAE and FAO: Partnering for Sustainable Agricultural Development and Global Food Security". [http://www.fao.org/3/a-az580e.pdf%5D.%20Accessed%204%20March%202019.%20%5B4]. Accessed 18 January 2021.

[3] Government of the UAE. "Animal Welfare Federal Law 16/2007". [http://www.rakawc.com/Animal-Welfare-UAE-

Laws.pdf]. Accessed 18 January 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 insufficient evidence that there is national legislation, plans, or equivalent strategy document(s) that include measures for risk identification and reduction for zoonotic disease spillover events from animals to humans.

No evidence could be found on the Ministry of Health and Prevention or the Ministry of Climate change and Environment [1,2]. However, some evidence could be found on the efforts of UAE combating the spreading of the animal diseases, according to the Federal law no. 8 of 2013 "On the Prevention and Control of Contagious and Epidemic Animal Diseases." In Article No. 3, it is mentioned that the animal's owner shall report to the Ministry of Health whenever the disease is suspected; in Article 5 it is written that the minister shall issue a decision in declaring the infected zone, one of the tasks that the government shall perform as per article no. 8 is: To immunize animals against diseases and allow others to do so provided that they are medically supervised. All these are measures to contain the risk [3].

As per an article was published in "Khaleeji Times" in 2016, "The UAE council of ministers has issued resolution No (33) for 2016 regarding the executive bylaw of the federal law No (14) for 2014 on fighting the communicable diseases, which will take effect in six months, after being published in the official gazette," and the resolution included the measures that ought to be followed when any of the listed communicable diseases are discovered and how to fight it [4].

The national biosecurity committee held its second meeting of 2020, and in that meeting, it developed a national plan for fighting zoonotic diseases and pandemics and an early notification system to report locust sightings. It is mentioned that "Other steps include monitoring the movement of locust swarms; informing the entities concerned about the results of the monitoring exercise and of the status of the outbreak in neighbouring countries; and conducting pest control operations at farms when needed" [5].

[1] The Ministry of Health and Prevention (MOHAP). [<https://www.mohap.gov.ae/>]. Accessed 19 February 2021.

[2] The Ministry of Climate change and Environment. [<https://www.moccae.gov.ae/en/home.aspx>]. Accessed 19 February 2021.

[3] Government of the UAE. Federal Law No. 8 of 2013. "On the Prevention and Control of Contagious and Epidemic Animal Diseases". [https://fsvps.gov.ru/fsvps-docs/ru/importExport/oea/files/law\\_oea\\_8.pdf](https://fsvps.gov.ru/fsvps-docs/ru/importExport/oea/files/law_oea_8.pdf). Accessed 18 January 2021.

[4] Khaleeji Times. Spetember 2016. "UAE Amends Law on Communicable Diseases". [<https://www.khaleejtimes.com/uae-amends-law-on-communicable-diseases>]. Accessed 21 January 2021.

[5] Khaleeji Times. July 2020. "UAE to Develop National Plan to Fight Zoonotic Diseases, Pandemics".

[<https://www.khaleejtimes.com/news/uae-health/uae-to-develop-national-plan-to-fight-zoonotic-diseases-pandemics>]. Accessed 21 January 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**

There is insufficient evidence of national laws that account for the surveillance and control of multiple zoonotic pathogens of public health concern. However, there is evidence of the efforts of controlling multiple zoonotic pathogens of public health concern, The Animal Health Law No. 8 (2013) on the Prevention and Control of Contagious Animal Diseases and Epidemics is executed by By-Law 14 of 2014. These two pieces of legislation identify more than 38 zoonotic diseases including: African Horse Sickness, Dourine, Glanders, Equine Encephalomyelitis, Equine Viral Arthritis, Equine Infectious Anaemia, Contagious Equine Metritis, Equine Influenza, Equine rhinopneumonitis, Japanese encephalitis, Surra (*Trypanosoma evansi*), West Nile Fever, Vesicular Stomatitis, Leptospirosis, paratuberculosis, Rabies, Anthrax, lumpy skin disease, Blue tongue, Bovine Spongiform Encephalopathy, Contagious Pleuropneumonia, Rinderpest, Small Ruminants Plague, Rift Valley Fever, Brucellosis, Sheep & Goat Pox-Tuberculosis, Scrapie, Screwworm, Newcastle Disease, Avian Influenza, Infectious Laryngotracheitis, Fowl cholera, Fowl Typhoid, leishmaniasis in canine, Q fever and Camel pox. According to the Ministry of Climate Change and Environment, the provisions of the law include "the mandatory reporting of diseases; guidelines on dealing with suspected pathological; handling and transporting of sick animals; procedures for sterilisation and disinfection of affected livestock areas and the sanitary disposal of dead animal remains" [1,2,3]. As noted in the Joint External Evaluation (JEE) report on the UAE, completed in March 2017, the country has identified the following as priority zoonoses: bovine spongiform encephalopathy, bovine tuberculosis, brucellosis, Crimean-Congo haemorrhagic fever (CCHF), rabies, and Rift Valley fever (RVF) [4]. No further evidence could be found on the websites of the Ministry of Health and Prevention or the Ministry of Environment and Climate Change [5,6].

[1] Government of the UAE. Federal Law No. 8 of 2013. "On the Prevention and Control of Contagious and Epidemic Animal Diseases". [https://fsvps.gov.ru/fsvps-docs/ru/importExport/oaefiles/law\\_oae\\_8.pdf](https://fsvps.gov.ru/fsvps-docs/ru/importExport/oaefiles/law_oae_8.pdf) last access on 18 January 2021.

[2] Government of the UAE. Federal Law No. 14 of 2014. "Concerning the Control of Communicable Diseases". [<https://u.ae/en/information-and-services/health-and-fitness/combating-communicable-diseases>]. Accessed 18 January 2021.

[3] Ministry of Climate Change and Environment. "Ministry of Environment and Water Holds Series of Workshops Aimed at Helping Protect Livestock and Prevent Spread of Infectious Animal Diseases". [<https://www.moccae.gov.ae/en/media-center/news/7/11/2014/ministry-of-environment-and-water-holds-series-of-workshops-aimed-at-helping-protect-livestock-and-prevent-spread-of-infectious-animal-diseases.aspx?page=1%5D.%20Accessed%204%20March%202019.%20%5B4>]. Accessed 18 January 2021.

[4] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the United Arab Emirates". [<https://apps.who.int/iris/bitstream/handle/10665/259456/WHO-WHE-CPI-REP-2017.57-eng.pdf?sequence=1&isAllowed=y>]. Accessed 18 January 2021.

[5] The Ministry of health and prevention [<https://www.mohap.gov.ae/>]. Accessed February 19, 2021.

[6] The Ministry of Climate change and Environment [<https://www.moccae.gov.ae/en/home.aspx>]. Accessed 19 February 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 insufficient publicly available evidence of a department dedicated to zoonotic disease that functions across ministries.

Although Federal Law No. 8 of 2013 launched Animal Health, a specialized unit on zoonotic diseases within the Ministry of

Climate Change and Environment (MCCE) that works closely with the Ministry of Health and Prevention (MOHAP), it is not clear that this unit functions across ministries [1].

There is also, according to the Joint External Evaluation report (JEE), completed in March 2017, "an established National Committee for Zoonotic diseases" that works across ministries including MOHAP; the MCCE; the National Emergency Crisis and Disasters Management Authority; and Health, Safety and Environment at Dubai Municipality [2]. However, this is not a dedicated government agency or unit. It is not clear from Federal Law No. 8 or the JEE whether and how the committee functions or links to the specialized unit within MCCE, or if MOHAP staff are represented in the unit [1,2].

No further evidence and/or explanation could be found about the Animal Health unit within the MCCE or the National Committee on Zoonotic Diseases. Moreover, no evidence could be found on the websites of the MCCE, MOHAP, or the National Emergency Crisis and Disasters Management Authority (NCEMA) [3,4,5,6,7,8,9].

[1] Ministry of Climate Change and Environment. 2013. "Prevention and Control of Contagious Animal Diseases and Epidemics". [<https://www.moccae.gov.ae/ar/open-data.aspx#page=1>]. Accessed 18 January 2021.

[2] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the United Arab Emirates". [<https://apps.who.int/iris/bitstream/handle/10665/259456/WHO-WHE-CPI-REP-2017.57-eng.pdf?sequence=1&isAllowed=y>]. Accessed 18 January 2021.

[3] Ministry of Climate Change and Environment. "Open Data". [<https://www.moccae.gov.ae/en/open-data.aspx#page=1>]. Accessed 18 January 2021.

[4] Ministry of Climate Change and Environment. "Initiatives". [<https://www.moccae.gov.ae/en/media-center/initiatives.aspx>]. Accessed 18 January 2021.

[5] Ministry of Climate Change and Environment. "Publications". [<https://www.moccae.gov.ae/en/media-centre/publications.aspx#page=1>]. Accessed 18 January 2021.

[6] Ministry of Health and Prevention. "Projects and Initiatives". [<https://www.mohap.gov.ae/en/aboutus/Pages/ProjectandInitiatives.aspx>]. Accessed 18 January 2021.

[7] Ministry of Health and Prevention. "Health Research Bank". [<https://www.mohap.gov.ae/en/aboutus/Pages/HKMS.aspx>]. Accessed 18 January 2021.

[8] National Emergency Crisis and Disasters Management Authority. "Publications". [<https://www.ncema.gov.ae/en/media-center/publications.aspx>]. Accessed 18 January 2021.

[9] National Emergency Crisis and Disasters Management Authority. "Laws and Legislation". [<https://www.ncema.gov.ae/en/about-ncema/laws-and-legislation.aspx>]. Accessed 18 January 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 the presence of a mechanism for owners of livestock to conduct and report on disease surveillance to a central government agency. The only evidence that was found was regarding the presence of a national requirement in the form of laws, but the actual mechanisms of reporting in the form of a hotline or portal could not be found.

According to Federal Law No. 14 of 2014 on the control of communicable diseases, conducting and reporting on disease surveillance has been made mandatory for livestock owners [2]. Animal Health Law No. 8 of 2013 concerning the Prevention and Control of Contagious Animal Diseases also lists notifiable diseases and a form to be filled in by owners to report the diseases. But there is no further information on how this information is relayed to a central government body [4]. As per Khaleej Times, in 2016, the Council of Ministers issued Resolution No 33 regarding the executive bylaw of federal law No. 14, identifying "the ways to report such diseases, including those diseases that could be transmitted from animals" [3].

Although the legal framework is in place, no evidence could be found of a government portal or hotline for the owners of livestock to report animal diseases. Furthermore, no evidence could be found via the Joint External Evaluation (JEE) of the UAE conducted in 2017, Official Portal of the Government or the Ministry of Climate Change and Environment [1, 6, 7].

[1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the United Arab Emirates". [<https://apps.who.int/iris/bitstream/handle/10665/259456/WHO-WHE-CPI-REP-2017.57-eng.pdf?sequence=1&isAllowed=y>]. Accessed 19 January 2021.

[2] Government of the UAE. Federal Law No. 14 of 2014. "Concerning the Control of Communicable Diseases" [<https://u.ae/en/information-and-services/health-and-fitness/combating-communicable-diseases>]. Accessed 18 January 2021.

[3] Khaleej Times. 25 September 2016. "The UAE Amends Law on Communicable Diseases". [<https://www.khaleejtimes.com/uae-amends-law-on-communicable-diseases>]. Accessed 19 January 2021.

[4] Government of the UAE. Federal Law No. 8 of 2013. "On the Prevention and Control of Contagious and Epimeic Animal Diseases". [[https://fsvps.gov.ru/fsvps-docs/ru/importExport/oea/files/law\\_oea\\_8.pdf](https://fsvps.gov.ru/fsvps-docs/ru/importExport/oea/files/law_oea_8.pdf)]. Accessed 18 January 2021.

[5] Official Portal of the Government of the UAE. [<https://u.ae/en/about-the-uae/strategies-initiatives-and-awards/local-governments-strategies-and-plans>]. Accessed 19 January 2021

[6] Ministry of Climate Change and Environment. "Our Services: My Livestock Package: Request for Veterinary Guidance". [<https://www.moccae.gov.ae/en/legislations.aspx>]. Accessed 19 January 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**

No evidence could be found of laws or guidelines that safeguard the confidentiality of information generated through surveillance activities of animals (for owners).

Evidence was found on the presence of laws related to the health sector that safeguard the confidentiality of information for health practices. For example, the Health Authority of Abu Dhabi's Data Standards and Procedures of January 2008 (revised in April 2014) and the Dubai Health Authority's Home Healthcare Regulations, issued in 2012, outline the procedures healthcare facilities must follow with respect to healthcare records and their management. Similarly, the Health Record Guidelines outline the essential requirements that healthcare facilities must implement with regards to the management of health records, including record keeping, retention of health records, and destruction of health records. The Ministry of Health Code of Conduct 1988 states that pharmacists are required to uphold the confidentiality of any information acquired in the course of professional practice relating to patients and their families [1,2].

However, no evidence could be found that these regulations consider the confidentiality of information related to animals for owners. No evidence was found in the relevant legal documents, namely Federal Law No. 8 of 2013 on the Prevention

and Control of Contagious Animal Diseases and Epidemics, and the Animal Welfare Law of 2007 [3,4]. No evidence could be found on the websites of the Ministry of Climate Change and Environment or the Ministry of Health and Prevention or in academic journals and papers. The Joint External Evaluation (JEE) report on the UAE, completed in March 2017, does not provide any relevant information in this regard either [5,6,7].

[1] Emrad R., N. Bardawil. 14 August 2018. "Data Protection 2018: the UAE Chapter". [<https://www.mondaq.com/data-protection/727848/data-protection-2018-uae-chapter?>]. Accessed 19 January 2021.

[2] Tithecott A. September 2020. "The Healthcare Law Review—Edition 4: The UAE". [<https://thelawreviews.co.uk/edition/the-healthcare-law-review-edition-4/1230349/united-arab-emirates>]. Accessed 19 January 2021.

[3] Government of the UAE. 2007. Federal Law 16 Of 2007. "On Animal Welfare". [<http://extwprlegs1.fao.org/docs/pdf/uae101622.pdf>]. Accessed 19 January 2021.

[4] Government of the UAE. Federal Law No. 8 of 2013. "On the Prevention and Control of Contagious and Epidemic Animal Diseases". [[https://fsvps.gov.ru/fsvps-docs/ru/importExport/oea/files/law\\_oea\\_8.pdf](https://fsvps.gov.ru/fsvps-docs/ru/importExport/oea/files/law_oea_8.pdf)]. Accessed 18 January 2021.

[5] Ministry of Climate Change and Environment. "Regulations: Animal Health". [<https://www.moccae.gov.ae/ar/knowledge-and-statistics/wealth-and-animal-health.aspx>]. Accessed 19 January 2021.

[6] Ministry of Health and Prevention. "Open Access Regulations". [<https://www.mohap.gov.ae/en/openData/Pages/research-bank-uae.aspx>]. Accessed 19 January 2021.

[7] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the United Arab Emirates". [<https://apps.who.int/iris/bitstream/handle/10665/259456/WHO-WHE-CPI-REP-2017.57-eng.pdf?sequence=1&isAllowed=y>]. Accessed 17 January 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**

Insufficient evidence was found that the UAE conducts surveillance of zoonotic disease in wildlife (e.g., wild animals, insects, other disease vectors, etc.) in 2020, The ministry of climate change and environment decided to lead the development and the implementation plan of surveillance the zoonotic diseases, after discovering that 73% of diseases are communicable between humans and animals. There is a dedicated unit on zoonotic diseases within the Ministry of Climate Change and Environment (MCCE), Animal Health that works closely with the Ministry of Health and Prevention on zoonotic disease surveillance, control, detection, and surveillance in animal and wildlife; however, there is no evidence of surveillance in wildlife on the websites of the Ministry of Health and Prevention and the Ministry of Climate change and Environment [1, 2]. Federal Law No. 8 of 2013 on the Prevention and Control of Contagious Animal Diseases outlines 38 zoonotic diseases, including those transmitted from wildlife. These include West Nile Fever, Vesicular Stomatitis, Leptospirosis, Blue tongue, Peste des Petits Ruminants, Screwworm, Newcastle Disease, Infectious Laryngotracheitis, leishmaniasis in canine, Q fever, and camel pox. However, it does not mention anything about the surveillance activities in the wildlife [3]. As per the food navigator Asia website, the Abu Dhabi Food Control Authority (ADAFSA) conducts surveillance surveys on annual basis to assess the infectious diseases [4].

[1] Ministry of Health and Prevention. "Open Access Regulations". [<https://www.mohap.gov.ae/en/aboutus/Pages/HealthPolicies.aspx>]. Accessed 19 January 2021.

[2] Ministry of Climate Change and Environment. "Regulations: Agriculture Development and Health". [<https://www.moccae.gov.ae/en/knowledge-and-statistics/agricultural-development.aspx>]. 19 January 2021.

[3] Ministry of Climate Change and Environment. Federal Law No. 8 of 2013. "On the Prevention and Control of Contagious

Animal Diseases". [https://fsvps.gov.ru/fsvps-docs/ru/importExport/oe/files/law\\_oe\\_8.pdf](https://fsvps.gov.ru/fsvps-docs/ru/importExport/oe/files/law_oe_8.pdf). Accessed 18 January 2021.  
[4] oa, Tingamin, Food Navigator Asia. July 2019. "Preventing Zoonotic Diseases: Abu Dhabi Authority Stresses Biosecurity Requirements to Assess Supply Chain". [<https://www.foodnavigator-asia.com/Article/2019/07/03/Preventing-zoonotic-diseases-Abu-Dhabi-authority-stresses-biosecurity-requirements-to-protect-supply-chains>]. Accessed 19 January 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: 1

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: 11.99

2019

OIE WAHIS database

#### 1.2.4b

Number of veterinary para-professionals per 100,000 people

Input number

Current Year Score: 0.63

2019

OIE WAHIS database

### 1.2.5 Private sector and zoonotic

#### 1.2.5a

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

Yes = 1 , No = 0

Current Year Score: 0

There is insufficient publicly available evidence that the national plan on zoonotic disease, or other legislation, regulation, or plan includes mechanisms for working with the private sector in controlling or responding to zoonoses.

The main legal document on zoonotic diseases, Federal Law No. 8 of 2013 on Prevention and Control of Contagious Animal Diseases, does not mention the collaboration with the private sector. No information could be found on the websites of the Ministry of Climate Change and Environment, the Central Veterinary Research Laboratory, Dubai Central Laboratory, the Ministry of Health and Prevention (MOHAP) including Health Research Bank and academic journals and papers. [1,2,3,4,5,6,7,8].

The Joint External Evaluation (JEE) report on the UAE, completed in March 2017, implies that there is a collaboration but does not provide further information. It notes that the UAE is encouraged to "develop mechanisms to strengthen the One Health approach to address zoonoses, by enhancing coordination and communication among all stakeholders (public and private sectors) in the human-animal-wildlife interface" [9].

- [1] Ministry of Climate Change and Environment. Federal Law No. 8 of 2013. "On the Prevention and Control of Contagious Animal Diseases". [[https://fsvps.gov.ru/fsvps-docs/ru/importExport/oaefiles/law\\_oae\\_8.pdf](https://fsvps.gov.ru/fsvps-docs/ru/importExport/oaefiles/law_oae_8.pdf)]. Accessed 18 January 2021.
- [2] Ministry of Climate Change and Environment. "Regulations: Animal Health". [<https://www.moccae.gov.ae/ar/knowledge-and-statistics/wealth-and-animal-health.aspx>]. Accessed 19 January 2021. ]
- [3] Ministry of Health and Prevention. "Open Access Regulations". [<https://www.mohap.gov.ae/en/aboutus/Pages/HealthPolicies.aspx>]. Accessed 19 January 2021.
- [4] Ministry of Climate Change and Environment. "Regulations: Agriculture Development and Health". [<https://www.moccae.gov.ae/en/knowledge-and-statistics/agricultural-development.aspx>]. Accessed 19 January 2021.
- [5] Ministry of Health and Prevention. "Projects and Initiatives". [<https://www.mohap.gov.ae/en/aboutus/Pages/ProjectandInitiatives.aspx>]. Accessed 19 January 2021.
- [6] Central Veterinary Research Laboratory. "Publications". [<https://www.cvrl.ae/publication.php>]. Accessed 19 January 2021.
- [7] Dubai Central Laboratory. "Our News in Media". [<https://www.dm.gov.ae/en/Business/DubaiCentralLaboratory/Pages/default.aspx>]. Accessed 19 January 2021.
- [8] PubMed. [<https://www.ncbi.nlm.nih.gov/pubmed/?term=%22zoonotic+data%22+AND+%22private+sector%22+AND+%22UAE%22>]. Accessed 19 January 2021.
- [9] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the United Arab Emirates". [<https://apps.who.int/iris/bitstream/handle/10665/259456/WHO-WHE-CPI-REP-2017.57-eng.pdf?sequence=1&isAllowed=y>]. Accessed 17 January 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: 0

There is insufficient evidence that the UAE has 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.

Although the UAE has submitted Confidence Building Measures reports to the United Nations (UN) Biological Weapons Convention for the years 2017, 2018, 2019, and 2021, they are not publicly available and it is unknown if they contain information on this matter [1].

The Joint External Evaluation (JEE), on the UAE completed in March 2017, notes that the country "has started to update records and inventories and monitor compliance of facilities that store or process dangerous pathogens and toxins," but there is no evidence of progress on this via the websites of the Ministry of Health and Prevention, Ministry of Defence, Ministry of Climate Change and Environment, Ministry of Higher Education and Scientific Research, the Central Veterinary Research Laboratory, or the Institute for Health Metrics and Evaluation [2, 3,4,5,6,7,8,9,10,11].

[1] United Nations (UN) Biological Weapons Convention. "Confidence Building Measures." [<https://bwc-ecbm.unog.ch/state/ united-arab-emirates>] accessed 20 January, 2021.

[2] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the United Arab Emirates". [<https://apps.who.int/iris/bitstream/handle/10665/259456/WHO-WHE-CPI-REP-2017.57-eng.pdf?sequence=1&isAllowed=y>]. Accessed 17 January 2021.

[3] Ministry of Health and Prevention. "Open Access Regulations". [<https://www.mohap.gov.ae/en/openData/Pages/research-bank-uae.aspx>]. Accessed 19 January 2021.

[4] Ministry of Health and Prevention. "Projects and Initiatives". [<https://www.mohap.gov.ae/en/aboutus/Pages/ProjectandInitiatives.aspx>]. Accessed 19 January 2021.

[5] Ministry of Health and Prevention. "Health Research Bank". [<https://www.mohap.gov.ae/en/openData/Pages/research-bank-uae.aspx>]. Accessed 20 January 2021.

[6] Ministry of Defence. "Publications". [<https://mod.gov.ae/publications/>]. Accessed 20 January 2021.

[7] Ministry of Climate Change and Environment. "Regulations: Animal Health". [<https://www.moccae.gov.ae/ar/knowledge-and-statistics/wealth-and-animal-health.aspx>]. Accessed 19 January 2021.

[8] Ministry of Climate Change and Environment. "Regulations: Agriculture Development and Health". [<https://www.moccae.gov.ae/en/knowledge-and-statistics/agricultural-development.aspx>]. Accessed 19 January 2021.

[9] Ministry of Higher Education and Scientific Research. "Open Data". [<https://www.moe.gov.ae/En/OpenData/pages/home.aspx>]. Accessed 20 January 2021.

[10] Central Veterinary Research Laboratory. "Publications". [<https://www.cvrl.ae/publication.php>]. Accessed 19 January 2021.

[11] Institute for Health Metrics and Evaluation. "Research Articles". [<http://www.healthdata.org/results/research-articles>]. Accessed 20 January 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 insufficient publicly available evidence of regulations in place related to biosecurity that address requirements such as physical containment, operation practices, failure reporting systems and/or cybersecurity of facilities in which especially

dangerous pathogens and toxins are stored or processed.

The Joint External Evaluation (JEE) report on the UAE, completed in March 2017, refers to Cabinet Resolution No. 148/377/538/136 on biosecurity; however, this Resolution could not be found on the websites of the Ministry of Climate Change and Environment (MCCE), the Ministry of Health, and Prevention (MOHAP), or the Ministry of Defence [1,2,3,4,5]. Federal Law No. 8 of 2013 on the Prevention and Control of Contagious Animal Diseases and Federal Law No. 14 of 2014 on Infectious Disease are referenced in the JEE with regard to the regulations on biosecurity. However, they do not mention requirements such as those discussed here [1,6,7].

The JEE notes that "national biosecurity legislation is needed, along with an oversight monitoring and enforcement mechanism for biosecurity." No further evidence could be found on the websites of the MCCE, MOHAP, the Government of the UAE, Ministry of Defense, academic articles or the national health laboratory [2,3,4,5,6,7,8,9,10,11]. Furthermore, the UAE has submitted the United Nations (UN) Biological Weapons Convention Confidence Building Measures reports for the years 2017, 2018, 2019, and 2020 but they are not publicly available [12]. No evidence could be found on the Verification Research, Training, and Information Centre (VERTIC) Database [13].

[1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the United Arab Emirates". [https://apps.who.int/iris/bitstream/handle/10665/259456/WHO-WHE-CPI-REP-2017.57-eng.pdf?sequence=1&isAllowed=y]. Accessed 17 January 2021.

[2] Ministry of Health and Prevention. "Open Access Regulations". [https://www.mohap.gov.ae/en/openData/Pages/research-bank-uae.aspx]. Accessed 19 January 2021.

[3] Ministry of Climate Change and Environment. "Regulations: Animal Health". [https://www.moccae.gov.ae/ar/knowledge-and-statistics/wealth-and-animal-health.aspx]. Accessed 19 January 2021.

[4] Ministry of Climate Change and Environment. "Regulations: Agriculture Development and Health". [https://www.moccae.gov.ae/en/knowledge-and-statistics/agricultural-development.aspx]. Accessed 19 January 2021.

[5] Ministry of Health and Prevention. "Health Research Bank". [https://www.mohap.gov.ae/en/openData/Pages/research-bank-uae.aspx]. Accessed on 20 January 2021.

[6] Ministry of Climate Change and Environment. Federal Law No. 8 of 2013. "On the Prevention and Control of Contagious Animal Diseases". [https://fsvps.gov.ru/fsvps-docs/ru/importExport/oaefiles/law\_oae\_8.pdf]. Accessed 18 January 2021.

[7] Ministry of Health and Prevention. Federal Law No. 14 of 2014. "On Infectious Disease". [https://www.mohap.gov.ae/FlipBooks/PublicHealthPolicies/PHP-LAW-EN-35/mobile/index.html#p=1]. Accessed 20 January 2021.

[8] Ministry of Higher Education and Scientific Research. "Open Data". [https://www.moe.gov.ae/En/OpenData/pages/home.aspx]. Accessed 20 January 2021.

[9] Central Veterinary Research Laboratory. "Publications". [https://www.cvrl.ae/publication.php]. Accessed 19 January 2021.

[10] Institute for Health Metrics and Evaluation. "Research Articles". [http://www.healthdata.org/results/research-articles]. Accessed 20 January 2021.

[11] Ministry of Defence. "Publications". [https://mod.gov.ae/publications/]. Accessed on 20 January 2021.

[12] United Nations Biological Weapons Convention. "Confidence Building Measures." [https://bwc-ecbm.unog.ch/state/united-arab-emirates]. Accessed 20 January 2021.

[13] The Verification Research, Training and Information Centre (VERTIC) Database. [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/u/]. Accessed 21 February 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 insufficient evidence that there is an established agency responsible for the enforcement of biosecurity legislation and regulations.

According to the Ministry of Climate Change and Environment (MCCE), a National Committee for Biosecurity was formed by Ministerial Resolution No. 136 of 2012; as per the ministry of climate change and environment website, the committee was created to "implement a biosecurity strategy that works to promote bio-security through the development and updating of laws and legislation, Resource and competency building and plans to prevent the transformation of biological agents into threats." Moreover, the committee has partners from different sectors and other ministries, one of the roles and duties of the ministry of health & prevention and local health entities, is to ensure the application of biosecurity laws in medical centers and pharmacies; however, no evidence was found on the enforcement in the official website of the health and prevention [1,2]. Furthermore, the UAE has submitted the United Nations (UN) Biological Weapons Convention Confidence Building Measures reports upto 2020, but they are not accessible to the public [3]. No Evidence could be found on the Verification Research, Training, and Information Centre (VERTIC) database [4].

[1] Ministry of Climate Change and Environment. "The National Committee of Biosecurity".

[<https://www.moccae.gov.ae/en/knowledge-and-statistics/biosecurity/committees.aspx>]. Accessed 20 January 2021.

[3] United Nations Biological Weapons Convention. "Confidence Building Measures." [<https://bwc-ecbm.unog.ch/state/united-arab-emirates>]. Accessed 20 January 2021.

[4] The Verification Research, Training and Information Centre (VERTIC) Database.

[<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/u/>]. Accessed 21 February 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 insufficient publicly available evidence that the UAE has taken action to consolidate its inventories of especially dangerous pathogens and toxins into a minimum number of facilities.

The Joint External Evaluation (JEE) report on the UAE, completed in March 2017, only implies that such action has been taken. It notes, "while the majority of dangerous pathogens are currently stored in selected reference laboratories, further consolidation into fewer laboratories needs to be finalized." It can be understood from this that the UAE has taken some action to consolidate its inventories into a fewer number of facilities [1]. However, no further evidence in this regard could be found on the websites of the Ministry of Health and Prevention, the Ministry of Climate Change and Environment, the Ministry of Defence, the Central Veterinary Research Laboratory, the Ministry of Higher Education and Scientific Research, or the Institute for Health Metrics and Evaluation, or in academic research [2,3,4,5,6,7,8].

The UAE has submitted United Nations (UN) Biological Weapons Convention Confidence Building Measures reports for the years 2017, 2018, and 2019, but they are not publicly available [9]. In addition, no evidence could be found on the Verification Research, Training and Information Centre (VERTIC) Database [10].

- [1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the United Arab Emirates". [<https://apps.who.int/iris/bitstream/handle/10665/259456/WHO-WHE-CPI-REP-2017.57-eng.pdf?sequence=1&isAllowed=y>]. Accessed 17 January 2021.
- [2] Ministry of Health and Prevention. "Open Access Regulations". [<https://www.mohap.gov.ae/en/openData/Pages/research-bank-uae.aspx>]. Accessed 19 January, 2021.
- [3] Ministry of Climate Change and Environment. "Regulations: Animal Health". [<https://www.moccae.gov.ae/ar/knowledge-and-statistics/wealth-and-animal-health.aspx>]. Accessed 19 January 2021.
- [4] Ministry of Climate Change and Environment. "Regulations: Agriculture Development and Health". [<https://www.moccae.gov.ae/en/knowledge-and-statistics/agricultural-development.aspx>]. Accessed 19 January 2021.
- [5] Ministry of Higher Education and Scientific Research. "Open Data". [<https://www.moe.gov.ae/En/OpenData/pages/home.aspx>]. Accessed 20 January 2021.
- [6] Central Veterinary Research Laboratory. "Publications". [<https://www.cvrl.ae/publication.php>]. Accessed 19 January 2021.
- [7] Institute for Health Metrics and Evaluation. "Research Articles". [<http://www.healthdata.org/results/research-articles>]. Accessed 20 January 2021.
- [8] Ministry of Defence. "Publications". [<https://mod.gov.ae/publications/>]. Accessed 20 January 2021.
- [9] United Nations Biological Weapons Convention. "Confidence Building Measures." [<https://bwc-ecbm.unog.ch/state/united-arab-emirates>]. Accessed 20 January 2021.
- [10] The Verification Research, Training and Information Centre (VERTIC) Database. [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/u/>]. Accessed 21 February 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**

Insufficient evidence was found that capacity exists to conduct in-country capacity to conduct polymerase chain reaction (PCR)-based diagnostic testing for anthrax and/or Ebola, which would preclude culturing a live pathogen.

Since 1996, a specialized PCR diagnostic testing unit has been functioning at the Central Hospital in Abu Dhabi. According to Circular No. DG/23/17, healthcare providers in Abu Dhabi are to report all cases of viral hemorrhagic fever (including Ebola) to the relevant authorities (there is no information whether or not the tests for Ebola is conducted in the country). Moreover, the Circular asks the health providers to carry out Reverse-Transcription Polymerase Chain Reaction (RT-PCR) from blood or tissue; however, no evidence was found for whether or not the circular asks this to be made specifically for Ebola [1,2].

No further evidence could be found in the Joint External Evaluation (JEE) report, completed in March 2017, or on the websites of the Ministry of Health and Prevention, Ministry of Defense, and Ministry of Climate Change and Agriculture [3,4,5,6,7,8].

- [1] Medtech Insight.. "Polymerase Chain Reaction (PCR) Testing Introduced in the UAE". [<https://medtech.pharmaintelligence.informa.com/MT088555/Polymerase-Chain-Reaction-PCR-testing-introduced-in-United-Arab-Emirates-UAE>]. Accessed 20 January 2021.
- [2] Emirate of Abu Dhabi Health Authority. "Circular No. DG/23/17". [<https://www.doh.gov.ae/en/resources/Circulars>]. Accessed 20 January 2021.

- [3] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the United Arab Emirates". [https://apps.who.int/iris/bitstream/handle/10665/259456/WHO-WHE-CPI-REP-2017.57-eng.pdf?sequence=1&isAllowed=y]. Accessed 17 January 2021.
- [4] Ministry of Health and Prevention. "Open Access Regulations". [https://www.mohap.gov.ae/en/openData/Pages/research-bank-uae.aspx]. Accessed 19 January 2021.
- [5] Ministry of Climate Change and Environment. "Regulations: Animal Health". [https://www.moccae.gov.ae/ar/knowledge-and-statistics/wealth-and-animal-health.aspx]. Accessed 19 January 2021.
- [6] Ministry of Climate Change and Environment. "Regulations: Agriculture Development and Health". [https://www.moccae.gov.ae/en/knowledge-and-statistics/agricultural-development.aspx]. Accessed 19 January 2021.
- [7] Ministry of Higher Education and Scientific Research. "Open Data". [https://www.moe.gov.ae/En/OpenData/pages/home.aspx]. Accessed 20 January 2021.
- [8] Ministry of Defence. "Publications". https://mod.gov.ae/publications/. Accessed 20 January 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 evidence that the UAE requires biosecurity training, using a standardized, required approach, such as through a common curriculum or a train-the-trainer program, for personnel working in facilities housing or working with especially dangerous pathogens, toxins, or biological materials with pandemic potential.

The only evidence was found on biosafety, and not biosecurity. Laws related to zoonotic and infectious disease—Federal Law No. 14 of 2014 on Infectious Disease and Federal Law No. 8 of 2013 on the Prevention and Control of Contagious Animal Disease—make biosafety training and the associated training of trainers mandatory and standardized for the personnel working in facilities housing or working with especially dangerous pathogens, toxins, or biological materials with pandemic potential [1,2].

Furthermore, the Joint External Evaluation (JEE) on the UAE, completed in March 2017, refers to a number of cabinet resolutions and laws that make biosafety training a requirement (Cabinet Resolutions 148, 377, 538, and 136 as well as by-law No. 33, issued in 2016). However, the text of these resolutions and by-law No. 33 could not be found on the websites of the Government of the UAE, the Ministry of Climate Change and Environment, or the Ministry of Health and Prevention [3,4,5,6,7].

The UAE has submitted United Nations (UN) Biological Weapons Convention Confidence Building Measures reports for the years 2017, 2018, 2019, and 2020, but they are not publicly available [8]. Overall evidence on the UAE tends to focus more on biosafety (protection from accidents) than biosecurity (preventing people with bad intentions from accessing dangerous materials) [8]. No evidence could be found on the Verification Research, Training, and Information Centre (VERTIC) database [9].

[1] Ministry of Climate Change and Environment. Federal Law No. 8 of 2013. "On the Prevention and Control of Contagious Animal Diseases". [https://fsvps.gov.ae/fsvps-docs/ru/importExport/oaefiles/law\_oe\_8.pdf]. Accessed 18 January 2021.

- [2] Government of the UAE. Federal Law No. 14 of 2014. "Concerning the Control of Communicable Diseases". <https://u.ae/en/information-and-services/health-and-fitness/combating-communicable-diseases>] last access on January 18th, 2021.
- [3] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the United Arab Emirates". <https://apps.who.int/iris/bitstream/handle/10665/259456/WHO-WHE-CPI-REP-2017.57-eng.pdf?sequence=1&isAllowed=y>]. Accessed 17 January 2021.
- [4] Ministry of Health and Prevention. "Open Access Regulations". <https://www.mohap.gov.ae/en/openData/Pages/research-bank-uae.aspx>. Accessed 19 January 2021.
- [5] Ministry of Climate Change and Environment. "Regulations: Animal Health". <https://www.moccae.gov.ae/ar/knowledge-and-statistics/wealth-and-animal-health.aspx>. Accessed 19 January 2021.
- [6] Ministry of Climate Change and Environment. "Regulations: Agriculture Development and Health". <https://www.moccae.gov.ae/en/knowledge-and-statistics/agricultural-development.aspx>. Accessed 19 January 2021.
- [7] Government of UAE <https://u.ae/en/#/>. Accessed 20 January 2021.
- [8] United Nations Biological Weapons Convention. "Confidence Building Measures." <https://bwc-ecbm.unog.ch/state/united-arab-emirates>. Accessed 20 January 2021.
- [9] The Verification Research, Training and Information Centre (VERTIC) Database. <https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/u/> Accessed 21 February 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**

No evidence was found that of regulations or licensing conditions specifying that security and other personnel with access to especially dangerous pathogens, toxins, or biological materials with pandemic potential are subject to the following checks: drug testing, background checks, and psychological or mental fitness checks.

No evidence was found in relevant Federal Laws, namely Law No. 8 of 2014 on the Prevention of Zoonotic Diseases and Law No. 14 of 2014 on the Prevention of Infectious Diseases [1,2].

No evidence was found on the websites of the Federal Authority for the Government Human Resources, the Ministry of Climate Change and Environment, the Ministry of Health and Prevention, the Ministry of Defence, the national laboratory system, or the Ministry of Higher Education and Scientific Research, or in academic research. Moreover, no evidence was found in the Joint External Evaluation report (JEE) on the UAE, completed in March 2017 [3,4,5,6,7,8,9,10,11].

The UAE has submitted United Nations (UN) Biological Weapons Convention Confidence Building Measures reports for the years 2017, 2018, 2019, and 2020, but these are not publicly available [12]. No Evidence could be found on the Verification Research, Training and Information Centre (VERTIC) database [13].

- [1] Ministry of Climate Change and Environment. Federal Law No. 8 of 2013. "On the Prevention and Control of Contagious Animal Diseases". [https://fsvps.gov.ru/fsvps-docs/ru/importExport/oaefiles/law\_oae\_8.pdf]. Accessed 18 January 2021.
- [2] Government of the UAE. Federal Law No. 14 of 2014. "Concerning the Control of Communicable Diseases". [https://u.ae/en/information-and-services/health-and-fitness/combating-communicable-diseases]. Accessed 18 January 2021.
- [3] Ministry of Climate Change and Environment. "Regulations: Animal Health". [https://www.moccae.gov.ae/ar/knowledge-and-statistics/wealth-and-animal-health.aspx]. Accessed 19 January 2021.
- [4] Ministry of Climate Change and Environment. "Regulations: Agriculture Development and Health". [https://www.moccae.gov.ae/en/knowledge-and-statistics/agricultural-development.aspx]. Accessed 19 January 2021.
- [5] Ministry of Higher Education and Scientific Research. "Open Data". [https://www.moe.gov.ae/En/OpenData/pages/home.aspx]. Accessed 20 January 2021.
- [6] Central Veterinary Research Laboratory. "Publications". [https://www.cvrl.ae/publication.php]. Accessed 19 January 2021.
- [7] Institute for Health Metrics and Evaluation. "Research Articles". [http://www.healthdata.org/results/research-articles]. Accessed 20 January 2021.
- [8] Ministry of Defence. "Publications". [https://mod.gov.ae/publications/]. Accessed 20 January 2021.
- [9] Ministry of Human Resources and Emiratisation, "Open Data". [https://www.mohre.gov.ae/en/data-library/open-data-policy.aspx]. Last Accessed 2021.
- [10] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the United Arab Emirates". [https://apps.who.int/iris/bitstream/handle/10665/259456/WHO-WHE-CPI-REP-2017.57-eng.pdf?sequence=1&isAllowed=y]. Accessed 17 January 2021.
- [11] Ministry of Health and Prevention. "Open Access Regulations". [https://www.mohap.gov.ae/en/openData/Pages/research-bank-uae.aspx]. Accessed 19 January 2021.
- [12] United Nations (UN) Biological Weapons Convention. "Confidence Building Measures." [https://bwc-ecbm.unog.ch/state/united-arab-emirates]. Accessed 20 January 2021.
- [13] The Verification Research, Training and Information Centre (VERTIC) Database. [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/u/]. Accessed 21 February 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 publicly available evidence that the UAE has national regulations on the safe and secure transport of infectious substances (Categories A and B).

The Communicable Diseases Bulletin of the Department of Health in Abu Dhabi allocates a special section that includes regulations and guidelines for the safe transport of infectious substances, particularly pertaining to Categories A and B, which especially relate to the Emirate of Abu Dhabi [1]. Although this evidence points to the presence of regulation in Abu Dhabi, no publicly available evidence could be found that there are regulations for all of UAE.

Furthermore, no evidence could be found on the websites of the Ministry of Energy and infrastructure, Department of Travel and Transport On the UAE government website, the Ministry of Health and Prevention, the Ministry of Climate Change and

Environment, the Ministry of Higher Education and Scientific Research, or via the national laboratory system and academic research. [2,3,4,5,6,7,8,9]. No further publicly available evidence could be found via the Department of Health of Abu Dhabi or Dubai Health Authority [10,11, 12]. In addition, no evidence could be found on Verification Research, Training, and Information Centre (VERTIC) database [13]. The UAE has submitted United Nations (UN) Biological Weapons Convention Confidence Building Measures reports upto 2020, but they are not publicly available [14].

[1] Abu Dhabi Agriculture and Food safety Authority. "Guideline No. 7 of 2019, Collection, and Shipment of Animal Biological Samples".

[<https://www.adafsa.gov.ae/English/PolicyAndLegislations/AdvisoryGuidlines/Documents/Guideline%207%20of%202019%20Collection%20and%20Shipment%20of%20Animal%20Biological%20Samples.pdf>].

[2] The Ministry of Energy and Infrastructure, "Open Data" [<https://fta.gov.ae/en/open-data/statistics.aspx>]. Accessed 21 January 2021.

[3] The Government of UAE, Department of Travel and Transport [<https://u.ae/ar-ae/information-and-services/transportation>]. Accessed 21 January 2021.

[4] Ministry of Climate Change and Environment. Federal Law No. 8 of 2013. "On the Prevention and Control of Contagious Animal Diseases". [[https://fsvps.gov.ae/fsvps-docs/ru/importExport/oea/files/law\\_oe\\_8.pdf](https://fsvps.gov.ae/fsvps-docs/ru/importExport/oea/files/law_oe_8.pdf)]. Accessed 18 January 2021.

[5] Government of the UAE. Federal Law No. 14 of 2014. "Concerning the Control of Communicable Diseases". [<https://u.ae/en/information-and-services/health-and-fitness/combating-communicable-diseases>]. Accessed 18 January 2021.

[6] Ministry of Climate Change and Environment. "Regulations: Animal Health". [<https://www.moccae.gov.ae/ar/knowledge-and-statistics/wealth-and-animal-health.aspx>]. Accessed 19 January 2021.

[7] Ministry of Climate Change and Environment. "Regulations: Agriculture Development and Health". [<https://www.moccae.gov.ae/en/knowledge-and-statistics/agricultural-development.aspx>]. Accessed 19 January 2021.

[8] Ministry of Higher Education and Scientific Research. "Open Data". [<https://www.moe.gov.ae/En/OpenData/pages/home.aspx>]. Accessed 20 January 2021.

[9] Central Veterinary Research Laboratory. "Publications". [<https://www.cvrl.ae/publication.php>]. Accessed 19 January 2021

[10]. Institute for Health Metrics and Evaluation. "Research Articles". [<http://www.healthdata.org/results/research-articles>]. Accessed 20 January 2021.

[11] Ministry of Defence. "Publications". [<https://mod.gov.ae/publications/>]. Accessed 20 January 2021.

[12] Ministry of Human Resources and Emiratisation, "Open Data" [<https://www.mohre.gov.ae/en/data-library/open-data-policy.aspx>]. Accessed 2021.

[13] The Verification Research, Training and Information Centre (VERTIC) Database. [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/u/>]. Accessed 21 February 2021.

[14] United Nations (UN) Biological Weapons Convention. "Confidence Building Measures." [<https://bwc-ecbm.unog.ch/state/united-arab-emirates>]. Accessed 20 January 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

Insufficient evidence was found that there is overarching national legislation in place to oversee the cross-border transfer and end-user screening of especially dangerous pathogens, toxins, and pathogens with pandemic potential.

There are a few laws that tackle the importing of certain live goods, but there are no clear mentions of overseeing the cross-border transfer and end-user screening. According to Law No. 159 of 2012 (on the Inspections of Camels Transported from the Gulf Countries), a certificate from the exporting country is required that the camel is free of all epidemic diseases. Moreover, Law No. 137 of 2014 (on Inspection of Imported Live Goods (animals) from the countries that recorded cases of Q-Fever), in Article 1, says that in case any animal is imported from a country that has recorded any cases of Q-Fever, the exporting country must provide a certificate that the exported animal is free of Q-fever (the certificate has to be within 48 hours before the exporting date). However, these laws pertain to specific imports rather than covering the cross-border transfer and end-user screening of all goods. The existence of the laws is confirmed in the Joint External Evaluation report (JEE) on the UAE, completed in March 2017 [1,2,3].

[1] Ministry of Climate Change and Environment, 2012, "Inspections of Goods Transported from the Gulf Countries".

[<https://www.moccae.gov.ae/assets/download/e84933be/M159-12.pdf.aspx?view=true>]. Accessed 21 January 2021.

[2] Ministry of Climate Change and Environment. (Not dated) "Inspection of Imported Live Goods (animals) from other Countries". [<https://www.moccae.gov.ae/assets/download/e79d6ca8/M137-14.pdf.aspx?view=true>]. Accessed 21 January 2021.

[3] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the United Arab Emirates".

[<https://apps.who.int/iris/bitstream/handle/10665/259456/WHO-WHE-CPI-REP-2017.57-eng.pdf?sequence=1&isAllowed=y>]. Accessed 17 January 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**

Sufficient evidence was found that the UAE has national biosafety regulations in place.

Ministerial decree no. 271 of 2020 is the main reference for biosafety and biosecurity regulations in UAE; it classifies biosafety into four levels, where 1 is the lowest in terms of the risks and 4 is the highest. These levels statute the type of work practices that are allowed to take place in a lab setting. They also heavily influence the overall design of the facility as well as the type of specialized safety equipment used within it. It also includes a risk management protocol that tackles risk investigation, risk identification, risk prioritization, risk categorization, reporting risk, management strategy, risk investigation, management, and monitoring [1]. The guideline includes risk assessments, technical trainings of all health professionals, maintenance of hygiene and sanitary measures at all premises, and shared knowledge of emergency response plans including physical security standard operating procedures (SOPs) [1].

Furthermore, law such as Federal Law No. 14 of 2014 on the Prevention of Infectious Diseases and Federal Law No. 8 of 2013 on the Prevention of Zoonotic Diseases tackle the issue of combatting communicable diseases, but none of them makes a clear mention of the biosafety regulations. The Joint External Evaluation report (JEE), completed in March 2017, refers to a number of Cabinet Resolutions (Nos. 148/377/538/136) related to biosafety [2,3,4]. However, the actual policy documents

could not be found on the websites of the Ministry of Health and Prevention, the Ministry of Climate Change and Environment, or the Government of the UAE [5,6,7]. Despite the presence of legislation, the JEE report encourages the UAE to develop one specific piece of legislation on national biosafety and biosecurity [4].

- [1] Ministerial Decree No. (271) of 2020 for Regulating the Biosafety in UAE. [https://www.dha.gov.ae/Asset%20Library/HealthRegulation/BioSafety.pdf].
- [2] Ministry of Climate Change and Environment. Federal Law No. 8 of 2013. "On the Prevention and Control of Contagious Animal Diseases". [https://fsvps.gov.ru/fsvps-docs/ru/importExport/oaefiles/law\_oae\_8.pdf]. Accessed on 18 January 2021.
- [3] Government of the UAE. Federal Law No. 14 of 2014. "Concerning the Control of Communicable Diseases". [https://u.ae/en/information-and-services/health-and-fitness/combating-communicable-diseases]. Accessed on 18 January 2021.
- [4] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the United Arab Emirates". [https://apps.who.int/iris/bitstream/handle/10665/259456/WHO-WHE-CPI-REP-2017.57-eng.pdf?sequence=1&isAllowed=y]. Accessed 17 January 2021.
- [5] Ministry of Health and Prevention. "Open Access Regulations". [https://www.mohap.gov.ae/en/openData/Pages/research-bank-uae.aspx]. Accessed 19 January 2021.
- [6] Ministry of Climate Change and Environment. "Regulations: Animal Health". [https://www.moccae.gov.ae/ar/knowledge-and-statistics/wealth-and-animal-health.aspx]. Accessed 19 January 2021.
- [7] Government of UAE. [https://u.ae/en#/]. Accessed 20 January 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: 0**

There is insufficient evidence that there is an established agency responsible for the enforcement of biosafety legislation and regulations in the UAE. There is a ministerial decree no. 271 of 2020 for regulating biosafety in UAE, which indicates a job title for " Biosafety officer," whose duties and responsibilities include ensuring compliance with UAE federal laws, strategy, regulations, policies regarding biosafety/biosecurity in biomedical laboratories and maintain current knowledge of applicable laws, regulations, policies, and procedures. However, it is not mentioned to which agency this officer is affiliated to [1].

Moreover, as per Federal Law No. (9) of 2020, on Biosafety of Genetically Modified Organisms, in Article 25, it says, "The employees specified by a decision from the Minister of Justice, under agreement with the Minister or head of the Competent Authority, shall have the capacity of judicial officers within their scope of competence, as per proving the violations to the provisions of this Law, its Implementing Regulation and the decisions issued in implementation thereof." This law applies to genetically modified organisms (GMOs) only but there is no specification on which agency these employees are affiliated to [2]. No further evidence could be found on the websites of the Ministry of Health and Prevention (MOHAP), the Ministry of Climate Change and Environment, the national laboratories, or the Verification Research, Training, and Information Centre (VERTIC) Database [3,4,5,6,7,8,9,10,11].

- [1] Ministerial Decree No. (271) of 2020 For Regulating the Biosafety in UAE. [https://www.dha.gov.ae/Asset%20Library/HealthRegulation/BioSafety.pdf].
- [2] Federal Law No. [9] of 2020, on Biosafety of Genetically Modified Organisms. [https://apps.fas.usda.gov/newgainapi/api/Report/DownloadReportByFileName?fileName=UAE%20Passes%20New%20Mandatory%20Biotech%20Labeling%20Law\_Dubai\_United%20Arab%20Emirates\_10-17-2020]. Accessed 21 January 2021.

- [3] Ministry of Health and Prevention. "Open Access Regulations".  
[<https://www.mohap.gov.ae/en/openData/Pages/research-bank-uae.aspx>]. Accessed 19 January 2021.
- [4] Ministry of Climate Change and Environment. "Regulations: Animal Health". [<https://www.moccae.gov.ae/ar/knowledge-and-statistics/wealth-and-animal-health.aspx>]. Accessed 19 January 2021.
- [5] Ministry of Climate Change and Environment. "Regulations: Agriculture Development and Health".  
[<https://www.moccae.gov.ae/en/knowledge-and-statistics/agricultural-development.aspx>]. Accessed 19 January 2021.
- [6] Central Veterinary Research Laboratory. "Publications". [<https://www.cvrl.ae/publication.php>]. Accessed 19 January 2021.
- [7] Al Qassimi Hospital Laboratory. [<http://www.hmaward.org.ae/profile.php?id=176>]. Accessed 22 January 2021.
- [8] Sheikh Khalifa Medical City Laboratory. "Accreditations".  
[<https://legacy.seha.ae/SKMC/English/aboutus/Pages/Formation-of-SKMC.aspx>]. Accessed 22 January 2021.
- [9] Latifa Hospital Laboratory. [<https://www.dha.gov.ae/en/RashidHospital/pages/laboratory.aspx>]. Accessed 22 January 2021.
- [10] United Nations (UN) Biological Weapons Convention. "Confidence Building Measures." [<https://bwc-ecbm.unog.ch/state/united-arab-emirates>]. Accessed 20 January 2021.
- [11] The Verification Research, Training and Information Centre (VERTIC) Database.  
[<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/u/>]. Accessed 21 February 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 evidence that UAE 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.

With regard to the requirement of the training, Ministerial Decree No. 271 of 2020 for regulating biosafety in UAE includes that the personnel must enrol in some training before starting their work, and they should be supervised for sometime when they first start their job. In the competencies judgment, it says "Training and experience. (Training certification), Trained personnel should conduct activities within the facility under close supervision until competency has been demonstrated." With regard to standardization, the same ministerial decree mentions that a laboratory management system needs to assume the responsibility for ensuring that all personnel are trained and competent in the standard practices and techniques that minimize identified workplace hazards [1].

- [1] Ministerial Decree No. 271 of 2020 For Regulating the Biosafety in UAE.  
[<https://www.dha.gov.ae/Asset%20Library/HealthRegulation/BioSafety.pdf>]. Accessed January 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

No publicly available evidence could be found that the UAE has conducted an assessment to determine whether ongoing research is occurring on especially dangerous pathogens, toxins, pathogens with pandemic potential, and/or other dual-use research.

No evidence in this regard could be found on the websites of the Ministry of Health and Prevention, the Ministry of Climate Change and Environment, the Ministry of Defence the Ministry of Higher Education and Scientific Research, the national laboratory system, or in academic research [1,2,3,4,5,6,7]. Moreover, there is no evidence on the websites of the Ministry of Human Resources and Emiratisation, Dubai Health Authority, or the Department of Health of Abu Dhabi or in the Joint External Evaluation (JEE) for the UAE, completed in March 2017 [8,9,10,11]. Furthermore, no evidence could be found on the Verification Research, Training, and Information Centre (VERTIC) database [12]. The UAE has submitted United Nations (UN) Biological Weapons Convention Confidence Building Measures reports upto 2020, but they are not publicly available [13].

[1] Ministry of Health and Prevention. "Open Access Regulations".

[<https://www.mohap.gov.ae/en/openData/Pages/research-bank-uae.aspx>]. Accessed 19 January 2021.

[2] Ministry of Climate Change and Environment. "Regulations: Animal Health". [<https://www.moccae.gov.ae/ar/knowledge-and-statistics/wealth-and-animal-health.aspx>] last access 19 January 2021.

[3] Ministry of Climate Change and Environment. "Regulations: Agriculture Development and Health".

[<https://www.moccae.gov.ae/en/knowledge-and-statistics/agricultural-development.aspx>]. Accessed 19 January 2021.

[4] Ministry of Defence. "Publications". <https://mod.gov.ae/publications/>. Accessed 20 January 2021.

[5] Ministry of Higher Education and Scientific Research. "Open Data".

[<https://www.moe.gov.ae/En/OpenData/pages/home.aspx>]. Accessed 20 January 2021.

[6] Central Veterinary Research Laboratory. "Publications". [<https://www.cvrl.ae/publication.php>]. Accessed 19 January 2021.

[7] Institute for Health Metrics and Evaluation. "Research Articles". [<http://www.healthdata.org/results/research-articles>]. Accessed 20 January 2021.

[8] Ministry of Human Resources and Emiratisation, "Open Data" [<https://www.mohre.gov.ae/en/data-library/open-data-policy.aspx>]. Accessed 2021.

[9] Dubai Health Authority. [<https://www.dha.gov.ae/en/pages/dhahome.aspx>]. Accessed 24 January 2021.

[10] The Department of Health of Abu Dhabi [<https://doh.gov.ae/>]. Accessed 24 January 2021.

[11] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the United Arab Emirates".

[<https://apps.who.int/iris/bitstream/handle/10665/259456/WHO-WHE-CPI-REP-2017.57-eng.pdf?sequence=1&isAllowed=y>]. Accessed 17 January 2021.

[12] The Verification Research, Training and Information Centre (VERTIC) Database.

[<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/u/>]. Accessed 21 February 2021.

[13] United Nations (UN) Biological Weapons Convention. "Confidence Building Measures." [<https://bwc->

ecbm.unog.ch/state/united-arab-emirates]. Accessed 20 January 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**

No publicly available evidence could be found that there is a national policy requiring oversight of dual-use research, such as research with especially dangerous pathogens, toxins, and/or pathogens with pandemic potential. Furthermore, no evidence in this regard could be found on the websites of the Ministry of Health and Prevention, the Ministry of Climate Change and Environment, the Ministry of Defence the Ministry of Higher Education and Scientific Research, the national laboratory system, or in academic research [1,2,3,4,5,6,7]. Moreover, there is no evidence in this regard on the websites of Dubai Health Authority or the Department of Health of Abu Dhabi or in the Joint External Evaluation (JEE) for the UAE, completed in March 2017 [8,9].

[1] Ministry of Climate Change and Environment. "Regulations: Animal Health". [<https://www.moccae.gov.ae/ar/knowledge-and-statistics/wealth-and-animal-health.aspx>]. Accessed 19 January 2021.

[2] Ministry of Climate Change and Environment. "Regulations: Agriculture Development and Health". [<https://www.moccae.gov.ae/en/knowledge-and-statistics/agricultural-development.aspx>]. Accessed 19 January 2021.

[3] Ministry of Higher Education and Scientific Research. "Open Data". [<https://www.moe.gov.ae/En/OpenData/pages/home.aspx>]. Accessed 20 January 2021.

[4] Central Veterinary Research Laboratory. "Publications". [<https://www.cvrl.ae/publication.php>]. Accessed 19 January 2021.

[5] Institute for Health Metrics and Evaluation. "Research Articles". [<http://www.healthdata.org/results/research-articles>]. Accessed 20 January 2021.

[6] Ministry of Defence. "Publications". <https://mod.gov.ae/publications/> accessed on 20 January 2021.

[7] Ministry of Human Resources and Emiratisation, "Open Data" [<https://www.mohre.gov.ae/en/data-library/open-data-policy.aspx>]. Accessed 2021.

[8] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the United Arab Emirates". [<https://apps.who.int/iris/bitstream/handle/10665/259456/WHO-WHE-CPI-REP-2017.57-eng.pdf?sequence=1&isAllowed=y>]. Accessed 17 January 2021.

[9] Ministry of Health and Prevention. "Open Access Regulations". [<https://www.mohap.gov.ae/en/openData/Pages/research-bank-uae.aspx>]. Accessed 19 January 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**

No publicly available evidence could be found that there is an agency responsible for the oversight of research with especially dangerous pathogens, pathogens with pandemic potential, and/or other dual-use research.

Furthermore, no evidence could be found on the websites of the Ministry of Health and Prevention, the Ministry of Climate Change and Environment, the Ministry of Defence the Ministry of Higher Education and Scientific Research, or the national

laboratory system, or in academic research [1,2,3,4,5,6,7]. Moreover, there was no evidence on the websites of the Ministry of Human Resources and Emiratisation, Dubai Health Authority, or the Department of Health of Abu Dhabi or in the Joint External Evaluation (JEE) for the UAE, completed in March 2017 [8,9,10,11]. In addition, no evidence could be found on the Verification Research, Training, and Information Centre (VERTIC) database [12]. The UAE has submitted United Nations (UN) Biological Weapons Convention Confidence Building Measures reports upto 2020, but they are not publicly available [13].

- [1] Ministry of Health and Prevention. "Open Access Regulations".  
[<https://www.mohap.gov.ae/en/openData/Pages/research-bank-uae.aspx>]. Accessed 19 January 2021.
- [2] Ministry of Climate Change and Environment. "Regulations: Animal Health". [<https://www.moccae.gov.ae/ar/knowledge-and-statistics/wealth-and-animal-health.aspx>]. Accessed 19 January 2021.
- [3] Ministry of Climate Change and Environment. "Regulations: Agriculture Development and Health".  
[<https://www.moccae.gov.ae/en/knowledge-and-statistics/agricultural-development.aspx>]. Accessed 19 January 2021.
- [4] Ministry of Defence. "Publications". <https://mod.gov.ae/publications/>. Accessed 20 January 2021.
- [5] Ministry of Higher Education and Scientific Research. "Open Data".  
[<https://www.moe.gov.ae/En/OpenData/pages/home.aspx>]. Accessed 20 January 2021.
- [6] Central Veterinary Research Laboratory. "Publications". [<https://www.cvrl.ae/publication.php>]. Accessed 19 January 2021.
- [7] Institute for Health Metrics and Evaluation. "Research Articles". [<http://www.healthdata.org/results/research-articles>]. Accessed 20 January 2021.
- [8] Ministry of Human Resources and Emiratisation, "Open Data" [<https://www.mohre.gov.ae/en/data-library/open-data-policy.aspx>]. Accessed 2021.
- [9] Dubai Health Authority. [<https://www.dha.gov.ae/en/pages/dhahome.aspx>]. Accessed 24 January 2021.
- [10] The Department of Health of Abu Dhabi [<https://doh.gov.ae/>]. Accessed 24 January 2021.
- [11] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the United Arab Emirates". [<https://apps.who.int/iris/bitstream/handle/10665/259456/WHO-WHE-CPI-REP-2017.57-eng.pdf?sequence=1&isAllowed=y>]. Accessed 17 January 2021.
- [12] The Verification Research, Training and Information Centre (VEERTIC) Database.  
[<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/u/>]. Accessed 21 February 2021.
- [13] United Nations (UN) Biological Weapons Convention. "Confidence Building Measures." [<https://bwc-ecbm.unog.ch/state/united-arab-emirates>]. Accessed 20 January 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 there is an agency responsible for oversight of research with especially dangerous pathogens, pathogens with pandemic potential, and/or other dual-use research.

Moreover, no evidence could be found on the websites of the Ministry of Health and Prevention (MOPAH), the Ministry of Climate Change and Environment, the Ministry of Defence, the Ministry of Higher Education and Scientific Research, or the national laboratory system, or in academic research [1,2,3,4,5,6,7]. There was no evidence in this regard on the websites of the Ministry of Human Resources and Emiratisation, Dubai Health Authority, or the Department of Health of Abu Dhabi or in

the Joint External Evaluation (JEE) for the UAE, completed in March 2017 [8,9,10,11]. Furthermore, there was no evidence in this regard on the Verification Research, Training, and Information Centre (VERTIC) database [12]. The UAE has submitted United Nations (UN) Biological Weapons Convention Confidence Building Measures reports upto 2020, but they are not publicly available [13].

- [1] Ministry of Health and Prevention. "Open Access Regulations".  
[<https://www.mohap.gov.ae/en/openData/Pages/research-bank-uae.aspx>]. Accessed 19 January 2021.
- [2] Ministry of Climate Change and Environment. "Regulations: Animal Health". [[<https://www.moccae.gov.ae/ar/knowledge-and-statistics/wealth-and-animal-health.aspx>]]. Accessed 19 January 2021.
- [3] Ministry of Climate Change and Environment. "Regulations: Agriculture Development and Health".  
[<https://www.moccae.gov.ae/en/knowledge-and-statistics/agricultural-development.aspx>]. Accessed 19 January 2021.
- [4] Ministry of Defence. "Publications". <https://mod.gov.ae/publications/>. Accessed 20 January 2021.
- [5] Ministry of Higher Education and Scientific Research. "Open Data".  
[<https://www.moe.gov.ae/En/OpenData/pages/home.aspx>]. Accessed 20 January 2021.
- [6] Central Veterinary Research Laboratory. "Publications". [<https://www.cvrl.ae/publication.php>]. Accessed 19 January 2021.
- [7] Institute for Health Metrics and Evaluation. "Research Articles". [<http://www.healthdata.org/results/research-articles>]. Accessed 20 January 2021.
- [8] Ministry of Human Resources and Emiratisation, "Open Data". [<https://www.mohre.gov.ae/en/data-library/open-data-policy.aspx>]. Accessed 2021.
- [9] Dubai Health Authority [<https://www.dha.gov.ae/en/pages/dhahome.aspx>]. Accessed 24 January 2021.
- [10] The Department of Health of Abu Dhabi [<https://doh.gov.ae/>]. Accessed 24 January 2021.
- [11] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the United Arab Emirates". [<https://apps.who.int/iris/bitstream/handle/10665/259456/WHO-WHE-CPI-REP-2017.57-eng.pdf?sequence=1&isAllowed=y>]. Accessed 17 January 2021.
- [12] The Verification Research, Training and Information Centre (VERTIC) Database.  
[<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/u/>]. Accessed 21 February 2021.
- [13] United Nations (UN) Biological Weapons Convention. "Confidence Building Measures." [<https://bwc-ecbm.unog.ch/state/united-arab-emirates>]. Accessed 20 January 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: 2**

2019

World Health Organization

#### 1.6.1b

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

Yes = 1 , No = 0

Current Year Score: 1

2020

OIE WAHIS database

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

### 2.1 LABORATORY SYSTEMS STRENGTH AND QUALITY

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

##### 2.1.1a

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

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

Current Year Score: 2

There is publicly available evidence that the national laboratory system has the capacity to conduct diagnostic tests for at least five of the ten tests defined by the World Health Organization (WHO).

According to the Joint External Evaluation (JEE) report, completed in March 2017, "three reference laboratories are able to conduct the six core tests [...] except polio culture, which is referred to a regional laboratory in Oman" [1]. The tests include serology for HIV, polymerase chain reaction for influenza (H1N1), microscopy for tuberculosis, a rapid diagnostic test for malaria, and culture for salmonella. Polio culture is conducted at the regional lab in Oma, Moreover, the JEE report states that UAE scored 4 in laboratory testing for detection of priority diseases. There is no further evidence regarding whether the country identified its four core tests [1].

[1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the United Arab Emirates". [<https://apps.who.int/iris/bitstream/handle/10665/259456/WHO-WHE-CPI-REP-2017.57-eng.pdf?sequence=1&isAllowed=y>]. Accessed 17 January 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 insufficient publicly available evidence that the UAE has a national plan, strategy, or similar document for conducting testing during a public health emergency that include considerations for testing for novel pathogens, scaling capacity, and defining goals for testing.

The UAE has done a lot in the light of the volume of tests and the facilities in the processes of testing during COVID-19. As per a paper that was published by the Institute of Public Health, College of Medicine, UAE University, the UAE has conducted one of the highest number of tests worldwide [1]. The official website of the Government of the UAE has information on test sites and how to make an appointment. There is also a mobile application that can be used to make appointments and reservations [2]. According to the website of the Ministry of Health and Prevention (MOHAP), 4,451,7421 tests have been conducted [3]. Moreover, the UAE launched the National Home Testing Program for people of determination, citizens, and residents and assigned trained medical teams to visit them to conduct COVID-19 tests in their homes [4]. In addition, UAE introduced 20-minute tests to tackle cases faster [5]. However, a plan related to COVID-19 testing was not found.

Furthermore, nothing regarding conducting testing during a public health emergency is mentioned in the national action plan and strategy for environmental health in UAE in 2010 [6]. In 2017, UAE released a national action plan for fighting non-communicable diseases; however, it does not have evidence on having a strategy for conducting testing during a public health pandemic [7].

According to the World Health Organization's (WHO) Joint External Evaluation (JEE) conducted in March 2017, "Strategies and plans exist to mobilize resources from national and intermediate levels to support local response action, and a national public health emergency preparedness and response plan is in place." However, the actual document could not be found on the websites of the Ministry of Health and Prevention, the Ministry of Climate Change and Environment, or in the National Laboratory System [8,9,10,11,12].

[1] A review of COVID-19 mass testing in the United Arab Emirates, Institute of Public Health, College of Medicine & Health Sciences, UAE University, Al Ain, United Arab Emirates. January 2021. Accessed 2 May 2021.

[file:///Users/ahmadabdelgalil/Desktop/Abdelgalil/The%20Economist/Final/UAE%20Covid%20testing%20strategy.pdf].

[2] The Official Portal of UAE. "Types of Tests for Detecting COVID-19 and Testing for COVID-19". Accessed 2 May 2021. [<https://u.ae/en/information-and-services/justice-safety-and-the-law/handling-the-covid-19-outbreak/types-of-tests-for-detecting-covid-19-and-testing-for-covid19>].

[3] The Ministry of health and Prevention (MOHAP). "Last Information and Updates on COVID Cases". Accessed 2 May 2021. [<https://www.mohap.gov.ae/en/AwarenessCenter/Pages/COVID19-Information-Center.aspx>].

[4] The Official Portal of UAE. "National Home Testing Program for People of Determination". Accessed 2 May 2021.

[<https://u.ae/en/information-and-services/justice-safety-and-the-law/handling-the-covid-19-outbreak/caring-for-people-of-determination-amid-covid-19>].

[5] The National News. March 2020. Accessed 2 May 2021. [<https://www.thenationalnews.com/uae/science/coronavirus-uae-to-introduce-20-minute-tests-to-tackle-cases-faster-1.997891>].

[6] National Strategy and Action Plan for Environmental Health in UAE. 2010. [<https://sph.unc.edu/wp-content/uploads/sites/112/2013/07/report.pdf>].

[7] The National Action Plan For Fighting the Noncommunicable Diseases, 2017-2021.

[[https://extranet.who.int/nutrition/gina/sites/default/filesstore/ARE\\_2017\\_UAE%20national%20NCD%20plan.pdf](https://extranet.who.int/nutrition/gina/sites/default/filesstore/ARE_2017_UAE%20national%20NCD%20plan.pdf)].

[8] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the United Arab Emirates".

[<https://apps.who.int/iris/bitstream/handle/10665/259456/WHO-WHE-CPI-REP-2017.57-eng.pdf?sequence=1&isAllowed=y>]. Accessed 17 January 2021.

[9] Ministry of Health and Prevention. "Open Access Regulations".

[<https://www.mohap.gov.ae/en/openData/Pages/research-bank-uae.aspx>]. Accessed 19 January 2021.

[10] Ministry of Health and Prevention. "Health Research Bank". <https://www.mohap.gov.ae/en/openData/Pages/research-bank-uae.aspx>. Accessed 20 January 2021.

[11] Ministry of Climate Change and Environment. "Regulations: Agriculture Development and Health".

[<https://www.moccae.gov.ae/en/knowledge-and-statistics/agricultural-development.aspx>]. Accessed 19 January 2021.

[12] Central Veterinary Research Laboratory. "Publications". [<https://www.cvrl.ae/publication.php>]. Accessed 19 January 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 evidence that national laboratories in the UAE that serve as reference facilities are accredited. There are "three reference laboratories —Al Qassimi Hospital Laboratory (MHP); Sheikh Khalifa Medical City Laboratory (HAAD); and Latifa Hospital Laboratory (DHA) in the UAE." According to the Joint External Evaluation (JEE) report completed in March 2017, "many clinical laboratories have achieved laboratory accreditation through CAP or ISO, and national strategies aim to have 100% accreditation of clinical and veterinary laboratories within five years." But it is unclear whether these laboratories include the national reference laboratories [1]. No further evidence/expiation could be found on the websites of the Ministry of Prevention and Health, Al Qassimi Hospital Laboratory, Sheikh Khalifa Medical City Laboratory, or Latifa Hospital Laboratory [2,3,4,5,6,7].

[1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the United Arab Emirates". [<https://apps.who.int/iris/bitstream/handle/10665/259456/WHO-WHE-CPI-REP-2017.57-eng.pdf?sequence=1&isAllowed=y>]. Accessed February 2021.

[2] Al Qassimi Hospital Laboratory. [<http://www.hmaward.org.ae/profile.php?id=176>]. Accessed February 2021.

[3] Sheikh Khalifa Medical City Laboratory. "Accreditations".

[<https://www.seha.ae/SKMC/English/aboutus/Pages/accomplishments-.aspx>]. Accessed February 2021.

[4] Latifa Hospital Laboratory. [<https://www.dha.gov.ae/en/RashidHospital/pages/laboratory.aspx>]. Accessed February 2021.

[5] Ministry of Health and Prevention. "Open Access Regulations".

[<http://www.mohap.gov.ae/ar/aboutus/Pages/PublicHealthPolicies.aspx>]. Accessed February 2021.

[6] Ministry of Health and Prevention. "Projects and Initiatives".

[<http://www.mohap.gov.ae/ar/aboutus/Pages/ProjectandInitiatives.aspx>]. Accessed February 2021.

[7] Ministry of Health and Prevention. "Health Research Bank".

[<https://smartapps.moh.gov.ae/ords/f?p=105:522:14518362762757::NO:RP,RP,RIR,522::>]. Accessed February 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: 0**

There is insufficient evidence to indicate that there is a national laboratory that serves as a reference facility that is subject to external quality assurance review.

According to the Joint External Evaluation (JEE) report completed in March 2017, "many clinical laboratories have achieved laboratory accreditation through CAP or ISO, and national strategies aim to have 100% accreditation of clinical and veterinary laboratories within five years"; however, it is unclear whether or not these laboratories include the national reference laboratories [1].

No further evidence/explanation could be found on the websites of the Ministry of Prevention and Health, Al Qassimi Hospital Laboratory, Sheikh Khalifa Medical City Laboratory, or Latifa Hospital Laboratory [2,3,4,5,6,7].

[1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the United Arab Emirates". [https://apps.who.int/iris/bitstream/handle/10665/259456/WHO-WHE-CPI-REP-2017.57-eng.pdf?sequence=1&isAllowed=y]. Accessed 17 January 2021.

[2] Al Qassimi Hospital Laboratory. [http://www.hmaward.org.ae/profile.php?id=176]. Accessed 22 January 2021.

[3] Sheikh Khalifa Medical City Laboratory. "Accreditations".

[https://legacy.seha.ae/SKMC/English/aboutus/Pages/Formation-of-SKMC.aspx]. Accessed 22 January 2021.

[4] Latifa Hospital Laboratory. [https://www.dha.gov.ae/en/RashidHospital/pages/laboratory.aspx]. Accessed 22 January 2021.

[5] Ministry of Health and Prevention. "Open Access Regulations".

[https://www.mohap.gov.ae/en/openData/Pages/research-bank-uae.aspx]. Accessed 19 January 2021.

[6] Ministry of Health and Prevention. "Health Research Bank". [https://www.mohap.gov.ae/en/openData/Pages/research-bank-uae.aspx]. Accessed 20 January 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**

Publicly available evidence was found that there is a nationwide specimen transport system.

According to the Joint External Evaluation (JEE) report completed in March 2017, "a system is in place to transport specimens to/from other laboratories in the region, funded from the national budget." The report further notes "there is a system in place for specimen transportation from peripheral to referral laboratories". The report does not specify whether this system operates on a nationwide basis; however, it scores the UAE five out of five for having a "specimen referral and transport system" as part of its national laboratory system. It can be inferred from this that the system is nationwide [1].

No further evidence in this regard could be found on the websites of the Ministry of Climate Change and Environment, Ministry of Prevention and Health, or the national laboratory system [2,3,4,5,6].

[1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the United Arab Emirates". [https://apps.who.int/iris/bitstream/handle/10665/259456/WHO-WHE-CPI-REP-2017.57-eng.pdf?sequence=1&isAllowed=y].

Accessed 17 January 2021.

[2] Ministry of Health and Prevention. "Open Access Regulations".

[<https://www.mohap.gov.ae/en/openData/Pages/research-bank-uae.aspx>]. Accessed 19 January 2021

[3] Ministry of Climate Change and Environment. "Regulations: Animal Health". [<https://www.moccae.gov.ae/ar/knowledge-and-statistics/wealth-and-animal-health.aspx>]. Accessed 19 January 2021.

[4] Ministry of Health and Prevention. "Health Research Bank". <https://www.mohap.gov.ae/en/openData/Pages/research-bank-uae.aspx>. Accessed 20 January 2021.

[5] Ministry of Climate Change and Environment. "Regulations: Agriculture Development and Health".

[<https://www.moccae.gov.ae/en/knowledge-and-statistics/agricultural-development.aspx>]. Accessed 19 January 2021.

[6] Central Veterinary Research Laboratory. "Publications". [<https://www.cvrl.ae/publication.php>]. Accessed 19 January 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 publicly available evidence that there is a plan in place to rapidly authorize or license laboratories to supplement the capacity of the national public health laboratory system to scale-up testing during an outbreak.

In the Joint External Evaluation (JEE) report conducted in March 2017, it says "Mandatory licensing of all health laboratories is in place and conformity to a national quality standard is required; however, there is not yet mandatory laboratory accreditation to international quality standards" [1].

Further, no evidence could be found on the websites of the Ministry of Health and Prevention, Ministry of Climate Change and Environment, or the national laboratory system [2,3,4,5,6].

[1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the United Arab Emirates".

[<https://apps.who.int/iris/bitstream/handle/10665/259456/WHO-WHE-CPI-REP-2017.57-eng.pdf?sequence=1&isAllowed=y>]. Accessed 17 January 2021.

[2] Ministry of Health and Prevention. "Open Access Regulations".

[<https://www.mohap.gov.ae/en/openData/Pages/research-bank-uae.aspx>]. Accessed 19 January 2021.

[3] Ministry of Climate Change and Environment. "Regulations: Animal Health". [<https://www.moccae.gov.ae/ar/knowledge-and-statistics/wealth-and-animal-health.aspx>]. Accessed 19 January 2021.

[4] Ministry of Health and Prevention. "Health Research Bank". <https://www.mohap.gov.ae/en/openData/Pages/research-bank-uae.aspx>. Accessed 20 January 2021.

[5] Ministry of Climate Change and Environment. "Regulations: Agriculture Development and Health".

[<https://www.moccae.gov.ae/en/knowledge-and-statistics/agricultural-development.aspx>]. Accessed 19 January 2021.

[6] Central Veterinary Research Laboratory. "Publications". [<https://www.cvrl.ae/publication.php>]. Accessed 19 January 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: 1**

There is evidence that UAE conducts ongoing event-based surveillance; however, there is no evidence that the data are being analyzed on a daily basis.

According to the joint external evaluation report that was conducted by the World Health Organization (WHO) in March 2017, the UAE has strong and functional surveillance systems that are able to detect events significant for public health, and one of its targets is strengthened foundational indicator- and event-based surveillance systems that are able to detect events of significance for public health. Moreover, as per the report, daily reporting is also done through the daily pandemic report mechanism (including the report of the number of cases). In addition, according to the report, UAE scored 4 in indicator- and event-based surveillance systems, and no evidence on analyzing the data on a daily basis was found in the report [1]. Furthermore, no evidence was found in this regard on the official website of the Ministry of Health and Prevention, the official website of the National Emergency and Crisis Management authority, the national laboratories, or the ministry of climate change and environment [2,3,4,5,6,7].

[1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the United Arab Emirates".

[<https://apps.who.int/iris/bitstream/handle/10665/259456/WHO-WHE-CPI-REP-2017.57-eng.pdf?sequence=1&isAllowed=y>]. Accessed 17 January 2021.

[2] Ministry of Health and Prevention. "Open Access Regulations".

[<https://www.mohap.gov.ae/en/openData/Pages/research-bank-uae.aspx>] Accessed 19 January 2021.

[3] National Emergency, Crisis, and Disasters Management Authority. "Open Data". [<https://www.ncema.gov.ae/ar/studies-and-statistics.aspx>]. Accessed 23 January 2021.

[4] Al Qassimi Hospital Laboratory. [<http://www.hmaward.org.ae/profile.php?id=176>]. Accessed 22 January 2021.

[5] Sheikh Khalifa Medical City Laboratory. "Accreditations".

[<https://legacy.seha.ae/SKMC/English/aboutus/Pages/Formation-of-SKMC.aspx>]. Accessed 22 January 2021.

[6] Latifa Hospital Laboratory. [<https://www.dha.gov.ae/en/RashidHospital/pages/laboratory.aspx>]. Accessed 22 January 2021.

[7] Ministry of Climate Change and Environment. "Regulations: Agriculture Development and Health".

[<https://www.moccae.gov.ae/en/knowledge-and-statistics/agricultural-development.aspx>]. Accessed 19 January 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: 1**

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

According to the WHO, on January 20, the UAE has reported 4 cases of 2019-nCoV, which was before the WHO already declared COVID-19 a global pandemic [1].

[1] World Health Organization (WHO). Weekly Epidemiological Monitor, February 2020.

[<https://applications.emro.who.int/docs/EPI/2020/22244220-2020-13-5.pdf?ua=1>]. Accessed 4 February 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**

Insufficient evidence was found that the UAE operates an electronic reporting surveillance system at both the national level and sub-national levels.

According to the Joint External Evaluation (JEE) report, completed in March 2017, the country has a national electronic reporting surveillance system that is required to be unified across sectors as well as local levels. In 2011, the Dubai Health Authority launched an e-health system, including a guiding policy document entitled "Health Information Interoperability Standards", that seeks to unify an electronic reporting surveillance system at the country level among laboratories and hospitals. The report states that one of the areas that need strengthening and challenges is that the current system should continue to integrate units using real-time electronic reporting. Opportunities also exist to unify the national electronic surveillance system: a functional electronic notification system is in place in Abu Dhabi, and Dubai is updating its electronic notification system, linking notifiable diseases, outbreak, and immunization data. The MPH has plans to integrate these two systems with laboratory notification systems and expand one electronic surveillance system nationwide covering all Emirates [1].

In January 2019, MOHAP launched "UAE RADR," the first-of-its-kind smart App with UPPSALA; however, the app is used only to collect data about the side effects of drugs and not generic for surveillance reporting [2].

Furthermore, the website of the Ministry of Prevention and Health (MOHAP) dedicates a page to "E-Participation", which is only currently used as a "feedback" tool and not as a surveillance reporting system. No evidence of the presence of a relevant policy document could be found on MOHAP's website. No further evidence could be found on the website of the national laboratory system, or via academic research, or the Ministry of Higher Education and Scientific research [3,4,5,6,7].

[1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the United Arab Emirates".

[<https://apps.who.int/iris/bitstream/handle/10665/259456/WHO-WHE-CPI-REP-2017.57-eng.pdf?sequence=1&isAllowed=y>]. Accessed 17 January 2021.

[2] The Ministry of Health and Prevention. January 2019.

[<https://www.mohap.gov.ae/en/MediaCenter/News/Pages/2031.aspx>] last accessed January 23rd, 2021.

[3] Ministry of Health and Prevention. "Open Access Regulations".

[<https://www.mohap.gov.ae/en/openData/Pages/research-bank-uae.aspx>]. Accessed 19 January 2021.

[4] Ministry of Climate Change and Environment. "Regulations: Animal Health". [<https://www.moccae.gov.ae/ar/knowledge->

and-statistics/wealth-and-animal-health.aspx]. Accessed 19 January 2021.

[5] Ministry of Health and Prevention. "Health Research Bank". <https://www.mohap.gov.ae/en/openData/Pages/research-bank-uae.aspx>. Accessed 20 January 2021.

[6] Ministry of Climate Change and Environment. "Regulations: Agriculture Development and Health". [<https://www.moccae.gov.ae/en/knowledge-and-statistics/agricultural-development.aspx>]. Accessed 19 January 2021.

[7] Central Veterinary Research Laboratory. "Publications". [<https://www.cvrl.ae/publication.php>]. Accessed 19 January 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**

Insufficient evidence was found that the UAE operates an electronic reporting surveillance system at both the national level and sub-national levels.

According to the Joint External Evaluation (JEE) report, completed in March 2017, the country has a national electronic reporting surveillance system that is required to be unified across sectors as well as local levels. In 2011, the Dubai Health Authority launched an e-health system, including a guiding policy document titled "Health Information Interoperability Standards", that seeks to unify an electronic reporting surveillance system at the country level among laboratories and hospitals, the report states "that one of the areas that need strengthening and challenges is that the current system should continue to integrate units using real-time electronic reporting." Moreover, opportunities also exist to unify the national electronic surveillance system: a functional electronic notification system is in place in Abu Dhabi, and Dubai is updating its electronic notification system and linking notifiable diseases, outbreak and immunization data. The MPH has plans to integrate these two systems with laboratory notification systems and expand one electronic surveillance system nationwide covering all Emirates" [1].

In January 2019, MOHAP launched "UAE RADR"—the first-of-its-kind smart App with UPPSALA; however, the app is used only to collect data about the side effects of drugs and does conduct generic surveillance reporting [2].

The website of the Ministry of Prevention and Health (MOHAP) dedicates a page to "E-Participation", which is only currently used as a "feedback" tool and not as a surveillance reporting system. No evidence of the presence of a relevant policy document could be found on MOHAP's website. No further evidence could be found on the website of the national laboratory system, or via academic research, or the website of the Ministry of Higher Education and Scientific research [3,4,5,6,7].

[1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the United Arab Emirates". [<https://apps.who.int/iris/bitstream/handle/10665/259456/WHO-WHE-CPI-REP-2017.57-eng.pdf?sequence=1&isAllowed=y>]. Accessed 17 January 2021.

[2] The Ministry of Health and Prevention. January 2019. [<https://www.mohap.gov.ae/en/MediaCenter/News/Pages/2031.aspx>]. Accessed 23 January 2021.

[3] Ministry of Health and Prevention. "Open Access Regulations". [<https://www.mohap.gov.ae/en/openData/Pages/research-bank-uae.aspx>]. Accessed 19 January 2021.

[4] Ministry of Climate Change and Environment. "Regulations: Animal Health". [<https://www.moccae.gov.ae/ar/knowledge-and-statistics/wealth-and-animal-health.aspx>]. Accessed 19 January 2021.

[5] Ministry of Health and Prevention. "Health Research Bank". <https://www.mohap.gov.ae/en/openData/Pages/research-bank-uae.aspx>. Accessed 20 January 2021.

- [6] Ministry of Climate Change and Environment. "Regulations: Agriculture Development and Health". [<https://www.moccae.gov.ae/en/knowledge-and-statistics/agricultural-development.aspx>]. Accessed 19 January 2021.
- [7] Central Veterinary Research Laboratory. "Publications". [<https://www.cvrl.ae/publication.php>]. Accessed 19 January 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**

There is evidence of an electronic health record (EHR) system in place but insufficient evidence that EHRs are commonly in use in the UAE.

According to a recent study assessing the implementation of e-health in Dubai, "between 2011-2016, the number of participating hospitals has increased from 23 to 33". As noted by The National News Agency, a centralized and unified medical record database is expected to be completed in Abu Dhabi in 2022 [1,2].

No further evidence in this regard could be found via the Ministry of Prevention and Health, the national laboratory system (the three reference laboratories—Latifa Hospital Laboratory, Sheikh Khalifa Medical City Laboratory, and Al Qassimi Hospital Laboratory), academic research, or the Ministry of Higher Education and Scientific research [3,4,5,6,7,8,9,10].

[1] El-Hassan el. al. 2017. "Tracking the Implementation of Electronic Medical Records in Dubai, the UAE, Using an Adoption Benchmarking Tool". *Stud Health Technol Inform* 245:64-68.

[2] Shireen Al Nowais, The National News Agency. "Unified medical record database coming to Abu Dhabi". [<https://www.thenationalnews.com/uae/health/unified-medical-record-database-coming-to-abu-dhabi-1.759275>]. Accessed 23 January 2021.

[3] Ministry of Health and Prevention. "Open Access Regulations". [<https://www.mohap.gov.ae/en/openData/Pages/research-bank-uae.aspx>]. Accessed 19 January 2021.

[4] Ministry of Climate Change and Environment. "Regulations: Animal Health". [<https://www.moccae.gov.ae/ar/knowledge-and-statistics/wealth-and-animal-health.aspx>]. Accessed 19 January 2021.

[5] Ministry of Health and Prevention. "Health Research Bank". [<https://www.mohap.gov.ae/en/openData/Pages/research-bank-uae.aspx>]. Accessed 20 January 2021.

[6] Ministry of Climate Change and Environment. "Regulations: Agriculture Development and Health". [<https://www.moccae.gov.ae/en/knowledge-and-statistics/agricultural-development.aspx>]. Accessed 19 January 2021.

[7] Central Veterinary Research Laboratory. "Publications". [<https://www.cvrl.ae/publication.php>] last access 19 January 2021.

[8] Al Qassimi Hospital Laboratory. [<http://www.hmaward.org.ae/profile.php?id=176>]. Accessed 22 January 2021.

[9] Sheikh Khalifa Medical City Laboratory. "Accreditations". [<https://legacy.seha.ae/SKMC/English/aboutus/Pages/Formation-of-SKMC.aspx>]. Accessed 22 January 2021.

[10] Latifa Hospital Laboratory. [<https://www.dha.gov.ae/en/RashidHospital/pages/laboratory.aspx>]. Accessed 22 January 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**

No publicly available evidence could be found that the national public health system has access to the electronic health records (EHRs) of individuals.

Moreover, no evidence in this regard could be found via the websites of the Ministry of Prevention and Health, Ministry of Higher Education and Scientific Research, the national laboratory system (the three reference laboratories—Latifa Hospital Laboratory, Sheikh Khalifa Medical City Laboratory, and Al Qassimi Hospital Laboratory) [1,2,3,4,5,6,7,8].

In 2017, the Dubai Health Authority introduced the Salama Electronic Medical Record System, a unified electronic medical record system connecting all government hospitals. The Department of Health is currently working on a similar scheme but is yet to introduce the necessary law, policy, or information technology platform [9]. Recently, healthcare authorities have been established on an Emirate level in Abu Dhabi and Dubai; subsequently, the focus of the UAE Ministry of Health and Prevention has shifted to the northern emirates (Sharjah, Ajman, Umm Al Quwain, Ras Al Khaimah, and Fujairah) [10].

[1] Ministry of Health and Prevention. "Open Access Regulations".

[<https://www.mohap.gov.ae/en/openData/Pages/research-bank-uae.aspx>]. Accessed 19 January 2021.

[2] Ministry of Climate Change and Environment. "Regulations: Animal Health". [<https://www.moccae.gov.ae/ar/knowledge-and-statistics/wealth-and-animal-health.aspx>]. Accessed 19 January 2021.

[3] Ministry of Health and Prevention. "Health Research Bank". [<https://www.mohap.gov.ae/en/openData/Pages/research-bank-uae.aspx>]. Accessed 20 January 2021.

[4] Ministry of Climate Change and Environment. "Regulations: Agriculture Development and Health".

[<https://www.moccae.gov.ae/en/knowledge-and-statistics/agricultural-development.aspx>] last access 19 January 2021.

[5] Central Veterinary Research Laboratory. "Publications". [<https://www.cvrl.ae/publication.php>]. Accessed 19 January 2021.

[6] Al Qassimi Hospital Laboratory. [<http://www.hmaward.org.ae/profile.php?id=176>]. Accessed 22 January 2021.

[7] Sheikh Khalifa Medical City Laboratory. "Accreditations".

[<https://legacy.seha.ae/SKMC/English/aboutus/Pages/Formation-of-SKMC.aspx>]. Accessed 22 January 2021.

[8] Latifa Hospital Laboratory. [<https://www.dha.gov.ae/en/RashidHospital/pages/laboratory.aspx>]. Accessed 22 January 2021.

[9] Tithecott A. September 2020. "The Healthcare Law Review—Edition 4: The UAE".

[<https://thelawreviews.co.uk/edition/the-healthcare-law-review-edition-4/1230349/united-arab-emirates>]. Accessed 19 January 2021.

[10] Official Portal of the UAE Government. "Health Regulatory Authorities". [<https://www.government.ae/en/information-and-services/health-and-fitness/health-authorities>]. Accessed 23 January 2021.

### 2.4.1c

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

Yes = 1 , No = 0

**Current Year Score: 0**

Insufficient evidence was found that there are data standards to ensure that data is comparable.

No evidence was found on the official websites of the Ministry of Health and Prevention, the Ministry of Climate Change and Environment, the national laboratories, or the official portal of the government of UAE [1,2,3,4,5,6,7].

[1] Ministry of Health and Prevention. "Health Research Bank". <https://www.mohap.gov.ae/en/openData/Pages/research-bank-uae.aspx>. Accessed 20 January 2021.

[2] Ministry of Climate Change and Environment. "Regulations: Agriculture Development and Health". [\[https://www.moccae.gov.ae/en/knowledge-and-statistics/agricultural-development.aspx\]](https://www.moccae.gov.ae/en/knowledge-and-statistics/agricultural-development.aspx). Accessed 19 January 2021.

[3] Central Veterinary Research Laboratory. "Publications". [\[https://www.cvrl.ae/publication.php\]](https://www.cvrl.ae/publication.php). Accessed 19 January 2021.

[4] Al Qassimi Hospital Laboratory. [\[http://www.hmaward.org.ae/profile.php?id=176\]](http://www.hmaward.org.ae/profile.php?id=176). Accessed 22 January 2021.

[5] Sheikh Khalifa Medical City Laboratory. "Accreditations". [\[https://legacy.seha.ae/SKMC/English/aboutus/Pages/Formation-of-SKMC.aspx\]](https://legacy.seha.ae/SKMC/English/aboutus/Pages/Formation-of-SKMC.aspx). Accessed 22 January 2021.

[6] Latifa Hospital Laboratory. [\[https://www.dha.gov.ae/en/RashidHospital/pages/laboratory.aspx\]](https://www.dha.gov.ae/en/RashidHospital/pages/laboratory.aspx). Accessed 22 January 2021.

[7] Official Portal of the UAE Government. "Health Regulatory Authorities". [\[https://www.government.ae/en/information-and-services/health-and-fitness/health-authorities\]](https://www.government.ae/en/information-and-services/health-and-fitness/health-authorities).

## 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 publicly available evidence of established mechanisms in the relevant ministries responsible for the animal, human, and wildlife surveillance to share data.

According to the Joint External Evaluation (JEE), a report completed in March 2017, there is a "command and control" setup, that connects the stakeholders in different ministries and authorities for animal, human, and wildlife surveillance and data sharing. However, the report adds that the mechanism of data sharing and coordination in the human-animal-wildlife interface needs to be strengthened under the "One Health" approach by establishing a unified electronic notification system [1].

However, no publicly available explanation could be found about the specifications of the command and control setup regarding whether it is in the form of a database, a standing, or event-specific committee. No evidence could be found on the websites of the Ministry of Health and Prevention (MOHAP), Ministry of Climate Change and Environment (MCCE), the national laboratory system (the three reference laboratories—Latifa Hospital Laboratory, Sheikh Khalifa Medical City Laboratory, and Al Qassimi Hospital Laboratory), Central Veterinary Research Laboratory, academic research, and Ministry of Higher Education and Scientific Research [2,3,4,5,6,7,8,9,10,11].

[1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the United Arab Emirates". [\[https://apps.who.int/iris/bitstream/handle/10665/259456/WHO-WHE-CPI-REP-2017.57-eng.pdf?sequence=1&isAllowed=y\]](https://apps.who.int/iris/bitstream/handle/10665/259456/WHO-WHE-CPI-REP-2017.57-eng.pdf?sequence=1&isAllowed=y). Accessed 17 January 2021.

[2] The Ministry of Health and Prevention. January 2019. [\[https://www.mohap.gov.ae/en/MediaCenter/News/Pages/2031.aspx\]](https://www.mohap.gov.ae/en/MediaCenter/News/Pages/2031.aspx). Accessed 23 January 2021.

- [3] Ministry of Health and Prevention. "Open Access Regulations".  
[<https://www.mohap.gov.ae/en/openData/Pages/research-bank-uae.aspx>]. Accessed 19 January 2021.
- [4] Ministry of Climate Change and Environment. "Regulations: Animal Health". [<https://www.moccae.gov.ae/ar/knowledge-and-statistics/wealth-and-animal-health.aspx>]. Accessed 19 January 2021.
- [5] Ministry of Health and Prevention. "Health Research Bank". [<https://www.mohap.gov.ae/en/openData/Pages/research-bank-uae.aspx>]. Accessed 20 January 2021.
- [6] Ministry of Climate Change and Environment. "Regulations: Agriculture Development and Health".  
[<https://www.moccae.gov.ae/en/knowledge-and-statistics/agricultural-development.aspx>]. Accessed 19 January 2021.
- [7] Central Veterinary Research Laboratory. "Publications". [<https://www.cvrl.ae/publication.php>]. Accessed 19 January 2021.
- [8] Al Qassimi Hospital Laboratory. [<http://www.hmaward.org.ae/profile.php?id=176>]. Accessed 22 January 2021.
- [9] Sheikh Khalifa Medical City Laboratory. "Accreditations".  
[<https://legacy.seha.ae/SKMC/English/aboutus/Pages/Formation-of-SKMC.aspx>]. Accessed 22 January 2021.
- [10] Latifa Hospital Laboratory. [<https://www.dha.gov.ae/en/RashidHospital/pages/laboratory.aspx>]. Accessed 22 January 2021.
- [11] Official Portal of the UAE Government. "Health Regulatory Authorities". [<https://www.government.ae/en/information-and-services/health-and-fitness/health-authorities>]. Accessed 23 January 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**

No publicly available evidence could be found that indicates that the UAE makes de-identified health surveillance data on disease outbreaks publicly available via reports (or other formats) on government websites.

Furthermore, no evidence in this regard could be found in the World Health Organization's (WHO) Joint External Evaluation (JEE) conducted in March 2017 or on the websites of the Ministry of Prevention and Health, Ministry of Climate Change and Environment, the national laboratory system (the three reference laboratories—Latifa Hospital Laboratory, Sheikh Khalifa Medical City Laboratory, Al Qassimi Hospital Laboratory), the Central Veterinary Research Laboratory, academic research, or the Ministry of Higher Education and Scientific research [1,2,3,4,5,6,7,8,9,10,11]. Moreover, there was no evidence in this regard on the websites of the Dubai Health Authority and the Department of Health of Abu Dhabi [12,13].

- [1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the United Arab Emirates".  
[<https://apps.who.int/iris/bitstream/handle/10665/259456/WHO-WHE-CPI-REP-2017.57-eng.pdf?sequence=1&isAllowed=y>]. Accessed 17 January 2021.
- [2] The Ministry of Health and Prevention, January 2019.  
[<https://www.mohap.gov.ae/en/MediaCenter/News/Pages/2031.aspx>] last accessed January 23rd, 2021.
- [3] Ministry of Health and Prevention. "Open Access Regulations".  
[<https://www.mohap.gov.ae/en/openData/Pages/research-bank-uae.aspx>]. Accessed 19 January 2021.
- [4] Ministry of Climate Change and Environment. "Regulations: Animal Health". [<https://www.moccae.gov.ae/ar/knowledge-and-statistics/wealth-and-animal-health.aspx>]. Accessed 19 January 2021.
- [5] Ministry of Health and Prevention. "Health Research Bank". [<https://www.mohap.gov.ae/en/openData/Pages/research-bank-uae.aspx>]. Accessed on 20 January 2021.

- [6] Ministry of Climate Change and Environment. "Regulations: Agriculture Development and Health". [<https://www.moccae.gov.ae/en/knowledge-and-statistics/agricultural-development.aspx>]. Accessed 19 January 2021.
- [7] Central Veterinary Research Laboratory. "Publications". [<https://www.cvrl.ae/publication.php>]. Accessed 19 January 2021.
- [8] Al Qassimi Hospital Laboratory. [<http://www.hmaward.org.ae/profile.php?id=176>]. Accessed 22 January 2021.
- [9] Sheikh Khalifa Medical City Laboratory. "Accreditations". [<https://legacy.seha.ae/SKMC/English/aboutus/Pages/Formation-of-SKMC.aspx>]. Accessed 22 January 2021.
- [10] Latifa Hospital Laboratory. [<https://www.dha.gov.ae/en/RashidHospital/pages/laboratory.aspx>]. Accessed 22 January 2021.
- [11] Official Portal of the UAE Government. "Health Regulatory Authorities". [<https://www.government.ae/en/information-and-services/health-and-fitness/health-authorities>]. Accessed 23 January 2021.
- [12] Dubai Health Authority. [<https://www.dha.gov.ae/en/pages/dhahome.aspx>]. Accessed 24 January 2021.
- [13] The Department of Health of Abu Dhabi. [<https://doh.gov.ae/>]. Accessed 24 January 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 sufficient publicly available evidence that the country makes 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. The supreme council for the national security of UAE publishes, on a daily basis, the number of daily diagnosed cases, deaths cases, recovered cases, active cases, and conducted tests; recently reporting on the number of total vaccine doses has also been included. The website is updated on a daily bases with user-friendly stats, graphs, and charts [1].

[1] The Supreme Council for National Security of the United Arab Emirates, National Emergency Crisis, and Disasters Management Authority. [<https://covid19.ncema.gov.ae/en>]. Accessed 24 January 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**

There is sufficient publicly available evidence that there are legislation and/or regulations that safeguard the confidentiality of identifiable health information for individuals in the UAE.

At the national level, Article 5 of Law No 4 of 2016 on the Responsibilities of Workers in Health and Medicine specifically prohibits medical doctors from divulging identifiable patient confidential information, whether acquired directly from the patient or indirectly by virtue of providing care, without request or consent from the patient. The law provides clearly defined exceptions to this prohibition, which includes, for example, preventing a crime, testifying in front of a court, and responding to a request from public health authorities to protect public health.

On the Emirate level (specifically Dubai), relevant information was found in this regard. Article 31 of the Health Data Protection Regulation No. 7 of (2013) details the "storage and security of patient health information" to safeguard the confidentiality of identifiable health information for individuals, but there is no clear evidence on the protection of the data legally [1,2].

[1] Ministry of Prevention and Health. 2016. "Responsibilities of Workers in Health and Medicine".  
[<http://www.mohap.gov.ae/FlipBooks/PublicHealthPolicies/PHP-LAW-AR-30/mobile/index.html#p=14>]. Accessed 24 January 2021.

[2] Dubai Healthcare City Authority. 2013. "Health Data Protection Regulation".  
[<https://dhcr.gov.ae/AboutDHCRDocuments/10-Health%20Data%20Protection%20Regulation.pdf>]. Accessed 24 January 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: 1**

There is evidence that UAE has 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).

The country has a Federal Law on Information and Communication Technology in the Health Field of 2019 (Federal Law No. 2 of 2019) ("the Health Data Law") in addition to its national legislation "Article 5 of Law No 4 of 2016 on the Responsibilities of Workers in Health and Medicine," which specifically prohibits medical doctors from divulging identifiable patient confidential information without request or consent from the patient, and Dubai Emirate's "Article 31 of the Health Data Protection Regulation No. 7 of (2013)," which details the "storage and security of patient health information" to safeguard the confidentiality of identifiable health information for individuals [1, 2, 3]. The Health Data Law regulates the electronic processing of all types of health and medical data and is applicable to all entities in the country [1]. This Law mandates confidentiality and consent for all data processing by entities and "requires entities to introduce cyber, technical, operational, and organisational procedures to ensure the integrity and security of personal health data." Moreover, it also outlines sanctions for noncompliance including revocation of license to use central IT systems, notice and/or warning from health authority, and fines of AED 1,000 to AED 1,000,000, depending on violation [1].

[1] One Trust Data Guidance. November 2019. "UAE: Cybersecurity Regulations and Their Impacts".  
[<https://www.dataguidance.com/opinion/uae-cybersecurity-regulations-and-their-impacts>]. Accessed 4 June 2021.

[2] Ministry of Prevention and Health. 2016. "Responsibilities of Workers in Health and Medicine".  
[<http://www.mohap.gov.ae/FlipBooks/PublicHealthPolicies/PHP-LAW-AR-30/mobile/index.html#p=14>]. Accessed 24 January 2021.

[3] Dubai Healthcare City Authority. 2013. "Health Data Protection Regulation".  
[<https://dhcr.gov.ae/AboutDHCRDocuments/10-Health%20Data%20Protection%20Regulation.pdf>]. Accessed 24 January 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 was insufficient evidence to indicate that the government has made a commitment to share surveillance data for one or more diseases during a public health emergency with other countries in the region.

Following the issuance of Federal Decree-Law No. 2 of 2011, the National Emergency, Crisis, and Disasters Management Authority (NCEMA) was officially established in 2013. The NCEMA closely collaborates with the Gulf Cooperation Council Emergency Management Centre on issues related to health risks preparedness, response, and management, but there is no clear mention of commitment to sharing data during public health emergencies [1,2,3].

No specific policy document or legislation on the sharing of surveillance data could be found on the websites of the Ministry of Prevention and Health or the National Emergency and Crisis Management Authority (NCEMA) [4,5.] According to the World Health Organization's (WHO) Joint External Evaluation (JEE) conducted in March 2017, one of the areas that needs strengthening in the UAE is "bilateral, multilateral, and regional reporting agreements with neighboring GCC countries need to be established." No further evidence was found that the government has made a commitment to share surveillance data during a public health emergency with other countries in the region [6].

[1] The Government of the UAE. Federal Decree-Law No. 2 of 2011. "In Respect of the Establishment of the National Emergency, Crisis, and Disasters Management Authority (NCEMA)". [https://www.ncema.gov.ae/vassets/11bfa4f2/Federal%20Law%20No.%202%20of%202011%20-%20NCEMA%20[2].pdf.aspx]. Accessed 24 January 2021.

[2] Emirates News Agency. "NCEMA, GCC Emergency Management Centre Discuss Cooperation". [http://wam.ae/en/details/1395302656628]. Accessed 23 January 2021.

[3] National Emergency, Crisis, and Disasters Management Authority. "Abu Dhabi Hosts GCC Risk Management Committee Meeting". March 2015 [Link]. Access 23 January 2021.

[4] Ministry of Health and Prevention. "Open Access Regulations". [https://www.mohap.gov.ae/en/openData/Pages/research-bank-uae.aspx]. Access 19 January 2021.

[5] National Emergency, Crisis and Disasters Management Authority. "Open Data". [https://www.ncema.gov.ae/ar/studies-and-statistics.aspx]. Accessed 23 January 2021.

[6] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the United Arab Emirates". [https://apps.who.int/iris/bitstream/handle/10665/259456/WHO-WHE-CPI-REP-2017.57-eng.pdf?sequence=1&isAllowed=y]. Accessed 17 January 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 publicly available evidence that there is a national system in place to provide support at the sub-national level (e.g., training, metrics standardization, and/or financial resources) to conduct contact tracing in the event of a public health emergency.

There are some efforts are being made in the light of COVID-19, such as a mobile application called "ALHOSN," which was launched after the outbreak of the pandemic in the UAE. As per the website, "the app can trace people who come in close proximity to confirmed COVID-19 cases using Bluetooth technology. Both phones exchange anonymized IDs that are stored in encrypted form on the ALHOSN app so health authorities can quickly contact people at risk and they can be retested" [1]. However, no clear evidence was found for a strategy, plan, or a document that includes a national system to provide support at the sub-national level.

Furthermore, the Ministry of Health and Prevention (MOHAP) launched a public campaign to urge the public to use the app to protect themselves and the others, yet, no evidence of a national system to provide support at the sub-national level [2]. No further evidence could be found on the official website of the National Emergency Crises and Disasters Management Authority (NCEMA), The Ministry of Health and Prevention, or the official portal of the Government of UAE [3,4,5]. Moreover, no further evidence could be found in the Joint External Evaluation (JEE) that was conducted by the World Health Organization (WHO) in 2017 [6].

[1] National Emergency Crises and Disasters Management Authority (NCEMA). "ALHOSN Page".

[<https://www.ncema.gov.ae/alhosn/index.html>]. Accessed 24 January 2021.

[2] The Ministry of Health and Prevention. "News". May 2020.

[<https://www.mohap.gov.ae/en/MediaCenter/News/Pages/2422.aspx>]. Accessed 24 January 2021.

[3] Ministry of Health and Prevention. "Health Research Bank". [<https://www.mohap.gov.ae/en/openData/Pages/research-bank-uae.aspx>]. Accessed 20 January 2021.

[4] National Emergency Crisis and Disasters Management Authority. "Laws and Legislation".

[<https://www.ncema.gov.ae/en/about-ncema/laws-and-legislation.aspx>]. Accessed 18 January 2021.

[5] Official Portal of the UAE Government. "Health Regulatory Authorities". [<https://www.government.ae/en/information-and-services/health-and-fitness/health-authorities>]. Accessed 23 January 2021.

[6] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the United Arab Emirates".

[<https://apps.who.int/iris/bitstream/handle/10665/259456/WHO-WHE-CPI-REP-2017.57-eng.pdf?sequence=1&isAllowed=y>]. Accessed 17 January 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 insufficient publicly available data that the UAE provides wraparound services to enable infected people and their contacts to self-isolate or quarantine as recommended, particularly economic support (paycheck, job security) and/or medical attention.

During the COVID-19 Pandemic, the UAE announced that it would treat the coronavirus cases free of charge, irrespective of whether or not the patient had insurance. [1] However, there is no evidence that this policy will apply to other infectious diseases. Furthermore, no evidence could be found on the websites of the Ministry of health and prevention, the government of UAE, or in the World Health Organization's (WHO) Joint External Evaluation conducted in March 2017 [2,3,4]. Moreover, no evidence could be found on the websites of the Department of Health of Abu Dhabi or Dubai Health Authority [5,6].

[1] Gokulan, Khaleeji Times. February 2020. "Coronavirus Cases in UAE to be Treated Free of Cost, Insurance Not Necessary". [<https://www.khaleejtimes.com/coronavirus-outbreak/coronavirus-cases-in-uae-to-be-treated-free-of-cost-insurance-not-necessary-->]. Accessed 24 January 2021.

[2] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the United Arab Emirates". [<https://apps.who.int/iris/bitstream/handle/10665/259456/WHO-WHE-CPI-REP-2017.57-eng.pdf?sequence=1&isAllowed=y>]. Accessed 17 January 2021.

[3] Ministry of Health and Prevention. "Open Access Regulations". [<https://www.mohap.gov.ae/en/openData/Pages/research-bank-uae.aspx>]. Access 19 January 2021.

[4] Official Portal of the UAE Government. "Health Regulatory Authorities". [<https://www.government.ae/en/information-and-services/health-and-fitness/health-authorities>]. Accessed 23 January 2021.

[5] Dubai Health Authority [<https://www.dha.gov.ae/en/pages/dhahome.aspx>]. Accessed 24 January 2021.

[6] The Department of Health of Abu Dhabi [<https://doh.gov.ae/>]. Accessed 24 January 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**

No evidence could be found that the UAE 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). UAE only reports the cases without differentiating between cases that have been traced back to a known source and those who have not. Furthermore, no evidence could be found on the websites of the Ministry of Health, Department of Health in Abu Dhabi, Health Authority of Dubai, or any national source [1,2,3,4].

- [1] Ministry of Health and Prevention. "Open Access Regulations".  
[<https://www.mohap.gov.ae/en/openData/Pages/research-bank-uae.aspx>]. Accessed 19 January 2021
- [2] Official Portal of the UAE Government. "Health Regulatory Authorities". [<https://www.government.ae/en/information-and-services/health-and-fitness/health-authorities>]. Accessed 23 January 2021.
- [3] Dubai Health Authority [<https://www.dha.gov.ae/en/pages/dhahome.aspx>] Accessed 24 January 2021.
- [4] The Department of Health of Abu Dhabi [<https://doh.gov.ae/>]. Accessed 24 January 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 insufficient publicly available evidence that there is a joint plan or cooperative agreement between the public health system and border control authorities to identify suspected and potential cases in international travelers and trace and quarantine their contacts in the event of a public health emergency in the UAE.

During the COVID-19 pandemic, the UAE announced a few policies to test travelers coming in to the country, such as a PCR test within 96 hours before the travel date and doing another test upon arrival. In certain states like Abu Dhabi, they provide travelers with medical bracelets to trace them. However, no evidence could be found that the government traces the contacts of the travelers. Further, these arrangements do not constitute a formal plan or agreement between the public health and border control authorities [1,2].

No further evidence could be found on the websites of the Ministry of the Health and Prevention, the National Emergency Crisis and Disasters Management Authority, the Department of Health in Abu Dhabi, the Health Authority of Dubai, or any other national source [3,4,5, 6]. Moreover, no evidence could be found in the World Health Organization's (WHO) Joint External Evaluation (JEE) conducted in March 2017 [7].

- [1] Government of UAE. "Guidelines That Apply To All Expatriate Residents". [<https://u.ae/en/information-and-services/justice-safety-and-the-law/handling-the-covid-19-outbreak/travelling-amid-covid-19/travelling-to-the-uae>]. Accessed 24 January 2021.
- [2] Government of UAE. "Quarantine Guidelines for Travelers to the UAE". [<https://u.ae/en/information-and-services/justice-safety-and-the-law/handling-the-covid-19-outbreak/travelling-amid-covid-19/quarantine-guidelines-for-travellers-to-the-uae>]. Accessed 24 January 2021.
- [3] The Ministry of Health and Prevention. "Open Data". [<https://www.mohap.gov.ae/en/OpenData/Pages/default.aspx>]. Accessed 23 January 2021.
- [4] National Emergency Crisis and Disasters Management Authority. "Open Data". [<https://www.ncema.gov.ae/en/studies-and-statistics/open-data-policy.aspx>]. Accessed 24 January 2021.
- [5] Dubai Health Authority. [<https://www.dha.gov.ae/en/pages/dhahome.aspx>]. Accessed 24 January 2021.
- [6] The Department of Health of Abu Dhabi. [<https://doh.gov.ae/>]. Accessed 24 January 2021.
- [7] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the United Arab Emirates". [<https://apps.who.int/iris/bitstream/handle/10665/259456/WHO-WHE-CPI-REP-2017.57-eng.pdf?sequence=1&isAllowed=y>].

Accessed 17 January 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 an applied epidemiology training program (such as FETP) is available in the country or that resources are provided by the government to send citizens to another country to participate in such a training.

According to the Joint External Evaluation (JEE) report, completed in March 2017, "a formal (2-year) Field Epidemiology Training Program (FETP) will be available through an agreement with King Saudi University in the Kingdom of Saudi Arabia. This is currently under discussion to obtain approval from the GCC. In recent years, the focus has been on in-service and short-course training; however, higher-level courses have been highlighted as an area for future development in the UAE. Many clinicians in the country are also trained on short-course epidemiology programs either at the local level or through certificate programs at partnering institutions. In addition, other public health personnel have been trained in and are working in the UAE, such as clinicians, biostatisticians, information systems specialists, and veterinarians" [1].

Furthermore, no publicly available evidence could be found on applied epidemiology training programs via the Ministry of Health and Prevention (MOHAP), the national laboratory system (the three reference laboratories—Latifa Hospital Laboratory, Sheikh Khalifa Medical City Laboratory, and Al Qassimi Hospital Laboratory), the Central Veterinary Research Laboratory, academic research, or the Ministry of Higher Education and Scientific research [2,3,4,5,6,7,8,9,10,11]. In addition, no evidence was found on the website of the King Saudi University [12], and no evidence was found on Centers for Disease Control and Prevention (CDC), The Eastern Mediterranean Public Health Network (EMPHNET), Training Programs in Epidemiology and Public Health Interventions Network (TEPHINET), and the African Field Epidemiology Network (AFENET) [13,14,15].

[1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the United Arab Emirates". [<https://apps.who.int/iris/bitstream/handle/10665/259456/WHO-WHE-CPI-REP-2017.57-eng.pdf?sequence=1&isAllowed=y>]. Accessed 17 January 2021.

[2] The Ministry of Health and Prevention., January 2019. [<https://www.mohap.gov.ae/en/MediaCenter/News/Pages/2031.aspx>]. Accessed 23 January 2021.

[3] Ministry of Health and Prevention. "Open Access Regulations". [<https://www.mohap.gov.ae/en/openData/Pages/research-bank-uae.aspx>]. Accessed 19 January 2021.

[4] Ministry of Climate Change and Environment. "Regulations: Animal Health". [<https://www.moccae.gov.ae/ar/knowledge->

and-statistics/wealth-and-animal-health.aspx]. Accessed 19 January 2021

[5] Ministry of Health and Prevention. "Health Research Bank". <https://www.mohap.gov.ae/en/openData/Pages/research-bank-uae.aspx>. Accessed 20 January 2021

[6]. Ministry of Climate Change and Environment. "Regulations: Agriculture Development and Health". [\[https://www.moccae.gov.ae/en/knowledge-and-statistics/agricultural-development.aspx\]](https://www.moccae.gov.ae/en/knowledge-and-statistics/agricultural-development.aspx). Accessed 19 January 2021.

[7] Central Veterinary Research Laboratory. "Publications". [\[https://www.cvrl.ae/publication.php\]](https://www.cvrl.ae/publication.php). Accessed 19 January 2021.

[8] Al Qassimi Hospital Laboratory. [\[http://www.hmaward.org.ae/profile.php?id=176\]](http://www.hmaward.org.ae/profile.php?id=176). Accessed 22 January 2021.

[9] Sheikh Khalifa Medical City Laboratory. "Accreditations". [\[https://legacy.seha.ae/SKMC/English/aboutus/Pages/Formation-of-SKMC.aspx\]](https://legacy.seha.ae/SKMC/English/aboutus/Pages/Formation-of-SKMC.aspx). Accessed 22 January 2021.

[10] Latifa Hospital Laboratory. [\[https://www.dha.gov.ae/en/RashidHospital/pages/laboratory.aspx\]](https://www.dha.gov.ae/en/RashidHospital/pages/laboratory.aspx). Accessed 22 January 2021.

[11] Official Portal of the UAE Government. "Health Regulatory Authorities". [\[https://www.government.ae/en/information-and-services/health-and-fitness/health-authorities\]](https://www.government.ae/en/information-and-services/health-and-fitness/health-authorities). Accessed 23 January 2021.

[12] King Saudi University. "FETP Training Events". [\[https://www.fetp.edu.sa/TrainingEvents.html\]](https://www.fetp.edu.sa/TrainingEvents.html). Accessed 24 January 2021.

[13] Center for Disease Control and Prevention [\[https://www.cdc.gov/globalhealth/healthprotection/resources/factsheets/fetp-factsheet.html\]](https://www.cdc.gov/globalhealth/healthprotection/resources/factsheets/fetp-factsheet.html). Accessed 24 January 2021.

[14] The Eastern Mediterranean health network [ <http://emphnet.net/?announcement=the-institute-of-public-health-and-the-national-medical-library-at-united-arab-emirates-university-announces-registration-for-systematic-reviews-and-meta-analyses-in-evidence-based-medicine>] Accessed 24 January 2021.

[15] Training Programs in Epidemiology and Public Health Interventions Network (TEPHINET). [\[https://www.tephinet.org/\]](https://www.tephinet.org/). Accessed 24 January 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 publicly available data that field epidemiology training programs (FETPs) are explicitly available, whether inclusive of animal health professionals or specific animal health field epidemiology training programs offered.

According to the Joint External Evaluation (JEE) report, completed in March 2017, "a formal (2-year) Field Epidemiology Training Program (FETP) will be available through an agreement with King Saudi University in the Kingdom of Saudi Arabia. This is currently under discussion to get approval from the GCC. In recent years, the focus has been on in-service and short-course training; however, higher level courses have been highlighted as an area for future development in the UAE. Many clinicians in the country are also trained on short-course epidemiology program either at local level or through certificate programmes at partnering institutions. In addition, other public health personnel have been trained in and are working in the UAE such as clinicians, biostatisticians, information systems specialists, and veterinarians" [1].

No publicly available evidence could be found on applied epidemiology training programs via the Ministry of Health and Prevention (MOHAP), the national laboratory system (the three reference laboratories—Latifa Hospital Laboratory, Sheikh Khalifa Medical City Laboratory, and Al Qassimi Hospital Laboratory), the Central Veterinary Research Laboratory, academic research, or the Ministry of Higher Education and Scientific research [2,3,4,5,6,7,8,9,10,11]. Furthermore, no evidence was found on the website of King Saudi University [12]. No evidence could be found on Centers for Disease Control and Prevention (CDC), the Eastern Mediterranean Public Health Network (EMPHNET), the Training Programs in Epidemiology and

Public Health Interventions Network (TEPHINET), or the African Field Epidemiology Network (AFENET) [13,14,15].

- [1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the United Arab Emirates". [https://apps.who.int/iris/bitstream/handle/10665/259456/WHO-WHE-CPI-REP-2017.57-eng.pdf?sequence=1&isAllowed=y]. Accessed 17 January 2021.
- [2] The Ministry of Health and Prevention. January 2019. [https://www.mohap.gov.ae/en/MediaCenter/News/Pages/2031.aspx]. Accessed 23 January 2021.
- [3] Ministry of Health and Prevention. "Open Access Regulations". [https://www.mohap.gov.ae/en/openData/Pages/research-bank-uae.aspx]. Accessed 19 January 2021.
- [4] Ministry of Climate Change and Environment. "Regulations: Animal Health". [https://www.moccae.gov.ae/ar/knowledge-and-statistics/wealth-and-animal-health.aspx]. Accessed 19 January 2021.
- [5] Ministry of Health and Prevention. "Health Research Bank". [https://www.mohap.gov.ae/en/openData/Pages/research-bank-uae.aspx]. Accessed 20 January 2021.
- [6] Ministry of Climate Change and Environment. "Regulations: Agriculture Development and Health". [https://www.moccae.gov.ae/en/knowledge-and-statistics/agricultural-development.aspx]. Accessed 19 January 2021.
- [7] Central Veterinary Research Laboratory. "Publications". [https://www.cvrl.ae/publication.php]. Accessed 19 January 2021.
- [8] Al Qassimi Hospital Laboratory. [http://www.hmaward.org.ae/profile.php?id=176]. Accessed 22 January 2021.
- [9] Sheikh Khalifa Medical City Laboratory. "Accreditations". [https://legacy.seha.ae/SKMC/English/aboutus/Pages/Formation-of-SKMC.aspx]. Accessed 22 January 2021.
- [10] Latifa Hospital Laboratory. [https://www.dha.gov.ae/en/RashidHospital/pages/laboratory.aspx]. Accessed 22 January 2021.
- [11] Official Portal of the UAE Government. "Health Regulatory Authorities". [https://www.government.ae/en/information-and-services/health-and-fitness/health-authorities]. Accessed 23 January 2021.
- [12] King Saudi University. "FETP Training Events". [https://www.fetp.edu.sa/TrainingEvents.html]. Accessed 24 January 2021.
- [13] Center for Disease Control and Prevention. [https://www.cdc.gov/globalhealth/healthprotection/resources/factsheets/fetp-factsheet.html]. Accessed 24 January 2021.
- [14] The Eastern Mediterranean Health Network [http://emphnet.net/?announcement=the-institute-of-public-health-and-the-national-medical-library-at-united-arab-emirates-university-announces-registration-for-systematic-reviews-and-meta-analyses-in-evidence-based-medicine]. Accessed 24 January 2021.
- [15] Training Programs in Epidemiology and Public Health Interventions Network [https://www.tephinet.org/]. Accessed 24 January 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: 2**

Evidence was found that the UAE has a national public health emergency response plan in place that addresses planning for multiple communicable diseases with pandemic potential and the plan is publicly available.

The National Response Framework (NRF), issued in 2013 by the National Emergency Crisis and Disasters Management Authority (NCEMA), acts as a standalone document that addresses planning for emergencies and crisis. The document consists of four chapters, introduction, roles and responsibilities, the national response system for emergencies and crisis and training, exercises and updating plans. but it does not mention anything specific to communicable diseases [3].

Federal Law No. 14 of 2014 concerning the control and response to 29 (multiple) communicable diseases is one of the legal documents that address the issue in the context of a national public health emergency, Article no. 1 states that the law aims at protecting public health through enhancing the state's efforts in combatting communicable diseases. Article no. 4 necessitates the importance of reporting communicable diseases to the relevant authorities with a maximum of 24 hours (the law states 29 diseases that require immediate reporting), Chapter 3 of the same law elaborate more on the procedures of combatting the communicable diseases, chapter 4 elaborate the duties and rights of the people who got infected with a communicable disease [1].

According to the Joint External Evaluation (JEE) report, completed in March 2017, the National Emergency and Crisis Management Authority (NCEMA) also works closely with the National Committee for Implementation of the International Health Regulations and Combatting Health Pandemics (established based on the Ministerial Decree No. 326 of 2015) [2].

[1] Government of the UAE. "Federal Law No. 14 of 2014. "Concerning the Control of Communicable Diseases". [[https://www.dha.gov.ae/Asset%20Library/20180625/FL14\\_2014.pdf](https://www.dha.gov.ae/Asset%20Library/20180625/FL14_2014.pdf)]. Accessed 24 January 2021.

[2] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the United Arab Emirates". [<https://apps.who.int/iris/bitstream/handle/10665/259456/WHO-WHE-CPI-REP-2017.57-eng.pdf?sequence=1&isAllowed=y>]. Accessed 17 January 2021.

[3] National Emergency Crisis and Disasters Management Authority. "National Response Framework". [<https://www.ncema.gov.ae/dassets/download/9ef6a125/NRF-English.pdf.aspx>]. Accessed 24 January 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 no publicly available evidence that there is an overarching national public health emergency response plan in place in the UAE that is updated within the last three years.

The most recent plan was published in 2013 by the National Emergency Crisis and Disasters Management Authority (NCEMA), namely the National Response Framework, which acts as a standalone document that addresses planning for emergencies and crisis [1].

No evidence could be found in the Ministry of Health and Prevention, Government of UAE portal, or the National Emergency and Crisis Management Authority [2,3,4].

[1] National Emergency Crisis and Disasters Management Authority. "National Response Framework". [https://www.ncema.gov.ae/dassets/download/9ef6a125/NRF-English.pdf.aspx]. Accessed 24 January 2021.

[2] Ministry of Health and Prevention. "Open Access Regulations". [https://www.mohap.gov.ae/en/openData/Pages/research-bank-uae.aspx]. Accessed 19 January 2021.

[3] Official Portal of the UAE Government. "Health Regulatory Authorities". [https://www.government.ae/en/information-and-services/health-and-fitness/health-authorities]. Accessed 23 January 2021.

[4] National Emergency Crisis and Disasters Management Authority. "Laws and Legislation". [https://www.ncema.gov.ae/en/about-ncema/laws-and-legislation.aspx]. Accessed 18 January 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**

No evidence could be found that the national public health emergency response plan in UAE that addresses planning for multiple communicable diseases with pandemic potential includes considerations for pediatric and other vulnerable populations.

The National Response Framework (NRF), issued in 2013 by the National Emergency Crisis and Disasters Management Authority (NCEMA), acts as a standalone document that addresses planning for multiple communicable diseases with pandemic potential as part of national emergency response planning. No evidence could be found that this document includes considerations for paediatric or other vulnerable populations [1].

No further evidence could be found on the websites of the government of UAE or the Ministry of Health and Prevention [2,3]. No further evidence could be found in Law no. 14 of 2014 [4].

[1] National Emergency Crisis and Disasters Management Authority. "National Response Framework". [https://www.ncema.gov.ae/dassets/download/9ef6a125/NRF-English.pdf.aspx]. Accessed 24 January 2021.

[2] Ministry of Health and Prevention. "Open Access Regulations". [https://www.mohap.gov.ae/en/openData/Pages/research-bank-uae.aspx]. Accessed 19 January 2021

[3] Official Portal of the UAE Government. "Health Regulatory Authorities". [https://www.government.ae/en/information-and-services/health-and-fitness/health-authorities]. Accessed 23 January 2021.

[4] Federal Law no. 14 of 2014 on Combatting the Communicable Diseases

[[https://www.dha.gov.ae/Asset%20Library/20180625/FL14\\_2014.pdf](https://www.dha.gov.ae/Asset%20Library/20180625/FL14_2014.pdf)]. Accessed 26 February 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**

No evidence could be found that there is a specific mechanism for engaging with the private sector to assist with outbreak emergency preparedness and response.

No evidence of a specific mechanism could be found on the websites of the Ministry of Health and Prevention (MOPAH), the National Emergency Crisis and Disasters Management Authority, the official portal of the government of the UAE [1,2,3].

[1] National Emergency Crisis and Disasters Management Authority. "Laws and Legislation".

[<https://www.ncema.gov.ae/en/about-ncema/laws-and-legislation.aspx>]. Accessed 18 January 2021.

[2] Ministry of Health and Prevention. "Open Access Regulations".

[<https://www.mohap.gov.ae/en/openData/Pages/research-bank-uae.aspx>]. Accessed 19 January 2021.

[3] Official Portal of the UAE Government. "Health Regulatory Authorities". [<https://www.government.ae/en/information-and-services/health-and-fitness/health-authorities>]. Accessed 23 January 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 sufficient evidence that the country has a policy, plan, and/or guidelines in place to implement non-pharmaceutical interventions (NPIs), but only for one disease (COVID-19).

The country has implemented various NPIs to combat the spread of COVID-19. The regulations included school breaks, suspending prayers, implementing distance learning, remote working, suspending distributions of print publication, closing shopping centers, postponing sports events, closing entertainment destinations temporarily, suspending visas, suspending flights, and suspending entry of Gulf Cooperation Council (GCC) citizens [1]. However, there is no evidence that these NPIs would be applied to any other pandemic.

Furthermore, no evidence could be found on the website of the Ministry of Health and Prevention (MOPAH) [2]. The UAE has a national policy for disease prevention; however, it contains nothing related to the implementation of NPIs during epidemics or pandemics [3]. No further evidence could be found on the website of the national emergency crisis and disasters management authority (NCEMA) [4].

[1] The Official Portal of the Ggovernment of the UAE. "Primary Governmental Efforts to Contain COVID-19".

[<https://u.ae/en/information-and-services/justice-safety-and-the-law/handling-the-covid-19-outbreak/government-efforts-to-contain-covid-19>]. Accessed 25 January 2021.

[2] Ministry of Health and Prevention. "Open Access Regulations".

[<https://www.mohap.gov.ae/en/openData/Pages/research-bank-uae.aspx>]. Accessed 19 January 2021.

[3] National Policy for Disease Prevention, UAE. [<https://www.mohap.gov.ae/FlipBooks/PublicHealthPolicies/PHP-LAW-AR-80/mobile/index.html#p=1>]. Accessed 25 January 2021

[4] National Emergency Crisis and Disasters Management Authority. "Laws and Legislation".

[<https://www.ncema.gov.ae/en/about-ncema/laws-and-legislation.aspx>]. Accessed 18 January 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 insufficient evidence that the country has activated its national emergency response plan for an infectious disease outbreak in the past year or that the country has completed a national-level biological threat-focused exercise (either with the World Health Organization (WHO) or separately) in the past year.

The country has taken some actions related to combating the spread of COVID-19, but these do not constitute a formal emergency response plan. The regulations included school break, suspending prayers, implementing distance learning, remote working, suspending distributions of print publication, closing shopping centers, postponing sports events, closing entertainment destinations temporarily, suspending visas, suspending flights, and suspending entry of Gulf Cooperation Council (GCC) citizens [1]. The actions that have been taken are not pre-mentioned in the National Response Framework document published by the National Emergency and Crisis Management Authority or the Federal Law no.14 of 2014 [5,6].

There is also no evidence of any national-level biological threat-focused exercises, and no evidence could be found on the websites of the Ministry of Health and Prevention (MOPAH), World Health Organization (WHO,) or any relevant national sources [2,3,4].

- [1] The Official Portal of the Government of UAE. "Primary Governmental Efforts to Contain COVID-19". [<https://u.ae/en/information-and-services/justice-safety-and-the-law/handling-the-covid-19-outbreak/government-efforts-to-contain-covid-19>]. Accessed 25 January 2021.
- [2] World Health Organization (WHO). "Simulation Exercise, UAE". [<https://extranet.who.int/sph/simulation-exercise?region=All&country=293>]. Accessed 2021.
- [3] Ministry of Health and Prevention. "Open Access Regulations". [<https://www.mohap.gov.ae/en/openData/Pages/research-bank-uae.aspx>]. Accessed 19 January 2021.
- [4] National Emergency Crisis and Disasters Management Authority. "Laws and Legislation". [<https://www.ncema.gov.ae/en/about-ncema/laws-and-legislation.aspx>]. Accessed 18 January 2021.
- [5] National Emergency Crisis and Disasters Management Authority. "National Response Framework". [<https://www.ncema.gov.ae/datasets/download/9ef6a125/NRF-English.pdf.aspx>]. Accessed 24 January 2021.
- [6] Government of the UAE. "Federal Law No. 14 of 2014. "Concerning the Control of Communicable Diseases". [[https://www.dha.gov.ae/Asset%20Library/20180625/FL14\\_2014.pdf](https://www.dha.gov.ae/Asset%20Library/20180625/FL14_2014.pdf)]. Accessed 24 January 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 insufficient evidence that the UAE 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.

No evidence could be found on the websites of the World Health Organization (WHO), the Ministry of Health and Prevention (MOHAP), or the Government of UAE [1,2,3]. No further evidence could be found on the country page of the WHO or the National Emergency and Crisis Management Authority official portal [4,5].

- [1] World Health Organization (WHO). "After Action Review, UAE." [<https://apps.who.int/iris/bitstream/handle/10665/259456/WHO-WHE-CPI-REP-2017.57-eng.pdf?sequence=1&isAllowed=y>]. Accessed 25 January 2021.
- [2] Ministry of Health and Prevention. "Open Access Regulations". [<https://www.mohap.gov.ae/en/openData/Pages/research-bank-uae.aspx>]. Accessed 19 January 2021.
- [3] Government of UAE. [<https://u.ae/en/#/>]. Accessed 20 January 2021.
- [4] World Health Organization (WHO). "World Health Data, United Arab of Emirates". [<https://www.who.int/data/gho/data/countries/country-details/GHO/united-arab-emirates?countryProfileId=d5d4f16c-a59d-4b71-9b50-1a44972545a1>]. Accessed 26 February 2021.
- [5] National Emergency Crisis and Disasters Management Authority. "Laws and Legislation". [<https://www.ncema.gov.ae/en/about-ncema/laws-and-legislation.aspx>]. Accessed 18 January 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 insufficient evidence that UAE in the past year has undergone a national-level biological threat-focused exercise that has included private sector representatives.

No evidence could be found in the country page in the World Health Organization (WHO) [1]. No evidence could be found in the after-action review of the WHO [2]. No evidence could be found in the Ministry of Health and Prevention's (MHOP) official website, the Ministry of Climate Change and Environment, or the National Emergency Crisis and Disasters Management Authority (NCEMA) [3,4,5]. No evidence could be found in the official platform of the government of UAE, official laboratories, Dubai Health Authority or the Department of Health of Abu Dhabi, or in the Joint External Evaluation (JEE) for the UAE, completed in March 2017 [6,7,8,9,10,11,12,13]. No sufficient evidence could be found in the country health profile that was published by the WHO in 2015 [14]. No further evidence could be found on the WHO Simulation Exercise page [15].

[1] World Health Organization. "UAE—Publications". [<https://www.who.int/publications/i>]. Accessed 2021.

[2] World Health Organization (WHO), After Action Review. [<https://extranet.who.int/sph/after-action-review?region=All&country=293>]. Accessed 2021.

[3] Ministry of Health and Prevention. "Open Access Regulations". [<https://www.mohap.gov.ae/en/openData/Pages/research-bank-uae.aspx>]. Accessed 19 January 2021.

[4] Ministry of Climate Change and Environment. "Knowledge". [<https://www.moccae.gov.ae/en/open-data.aspx#page=1>]. Accessed 17 January 2021.

[5] National Emergency Crisis and Disasters Management Authority. "Laws and Legislation". [<https://www.ncema.gov.ae/en/about-ncema/laws-and-legislation.aspx>]. Accessed 18 January 2021.

[6] Government of UAE. [<https://u.ae/en#/>]. Accessed 20 January 2021.

[7] Central Veterinary Research Laboratory. "Publications". [<https://www.cvrl.ae/publication.php>]. Accessed 19 January 2021.

[8] Al Qassimi Hospital Laboratory. [<http://www.hmaward.org.ae/profile.php?id=176>]. Accessed 22 January 2021.

[9] Sheikh Khalifa Medical City Laboratory. "Accreditations". [<https://legacy.seha.ae/SKMC/English/aboutus/Pages/Formation-of-SKMC.aspx>]. Accessed 22 January 2021.

[10] Latifa Hospital Laboratory. [<https://www.dha.gov.ae/en/RashidHospital/pages/laboratory.aspx>]. Accessed 22 January 2021.

[11] Dubai Health Authority. [<https://www.dha.gov.ae/en/pages/dhahome.aspx>]. Accessed 24 January 2021.

[12] The Department of Health of Abu Dhabi. [<https://doh.gov.ae/>]. Accessed 24 January 2021.

[13] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the United Arab Emirates". [<https://apps.who.int/iris/bitstream/handle/10665/259456/WHO-WHE-CPI-REP-2017.57-eng.pdf?sequence=1&isAllowed=y>]. Accessed 17 January 2021.

[14] World Health Organization (WHO). 2015. "UAE Country Health Profile". [[https://applications.emro.who.int/dsaf/EMROPUB\\_2016\\_EN\\_19276.pdf?ua=1](https://applications.emro.who.int/dsaf/EMROPUB_2016_EN_19276.pdf?ua=1)]. Accessed 25 January 2021.

[15] The World Health Organization (WHO). Simulation Exercise Page [<https://extranet.who.int/sph/simulation-exercise>]. Accessed 26 February 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: 1**

Evidence was found that the UAE has in place an Emergency Operations Centre (EOC).

According to the Joint External Evaluation (JEE) report, completed in March 2017, the country has public health EOCs at national, federal, and local levels within the Ministry of Health and Prevention (MOHAP) and/or local health authority [1]. However, the presence of these centers is not evident on the website of the MOHAP, the Dubai Health Authority, or the Department of Health of Abu Dhabi [2,3,4]. No evidence could be found on the website of the National Emergency and Crisis Management Authority [5].

[1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the United Arab Emirates". [<https://apps.who.int/iris/bitstream/handle/10665/259456/WHO-WHE-CPI-REP-2017.57-eng.pdf?sequence=1&isAllowed=y>]. Accessed 17 January 2021.

[2] Ministry of Health and Prevention. "Open Access Regulations". [<https://www.mohap.gov.ae/en/openData/Pages/research-bank-uae.aspx>] Accessed 19 January 2021.

[3] Dubai Health Authority. [<https://www.dha.gov.ae/en/pages/dhahome.aspx>]. Accessed 24 January 2021.

[4] The Department of Health of Abu Dhabi. [<https://doh.gov.ae/>]. Accessed 24 January 2021.

[5] National Emergency Crisis and Disasters Management Authority. "Laws and Legislation". [<https://www.ncema.gov.ae/en/about-ncema/laws-and-legislation.aspx>]. Accessed 18 January 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**

Insufficient evidence was found that country's Emergency Operations Centres (EOCs) conduct a drill at least once per year or that it has a requirement to conduct a drill at least once a year.

According to the World Health Organization's (WHO) Joint External Evaluation (JEE) conducted in March 2017, the (EOCs) conduct "joint national drills annually" that involve "all relevant organizations and stakeholders." It is not clear from the report who exactly the relevant organizations and stakeholders are. Moreover, it is not clear if these are health specific exercises or general emergency exercises. The report adds, that one of the areas that need strengthening is "Self/internal assessment on IHR implementation needs to be strengthened through the use of drills and simulations, and incorporation of lessons learnt" [1]. No further evidence is available on the websites of the Ministry of Health and Prevention, the Dubai Health Authority, or The Department of Health of Abu Dhabi [2,3,4]. No evidence is found on the National Emergency and Crisis Management Authority official platform [5].

- [1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the United Arab Emirates". [https://apps.who.int/iris/bitstream/handle/10665/259456/WHO-WHE-CPI-REP-2017.57-eng.pdf?sequence=1&isAllowed=y]. Accessed 17 January 2021.
- [2] Ministry of Health and Prevention. "Open Access Regulations". [https://www.mohap.gov.ae/en/openData/Pages/research-bank-uae.aspx] Accessed 19 January 2021.
- [3] Dubai Health Authority. [https://www.dha.gov.ae/en/pages/dhahome.aspx]. Accessed 24 January 2021.
- [4] The Department of Health of Abu Dhabi [https://doh.gov.ae/]. Accessed 24 January 2021.
- [5] National Emergency Crisis and Disasters Management Authority. "Laws and Legislation". [https://www.ncema.gov.ae/en/about-ncema/laws-and-legislation.aspx]. Accessed 18 January 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 that the country's Emergency Operations Centres (EOCs) can conduct, or have conducted within the last year, 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) report, completed in March 2017, "EOCs are operational 24/7 and the ability to activate a response within 120 minutes has been proven and drills are conducted annually" [1]. No further evidence is available on the websites of the Ministry of Health and Prevention, the Dubai Health Authority or The Department of Health of Abu Dhabi [2,3,4].

- [1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the United Arab Emirates". [https://apps.who.int/iris/bitstream/handle/10665/259456/WHO-WHE-CPI-REP-2017.57-eng.pdf?sequence=1&isAllowed=y]. Accessed 17 January 2021.
- [2] Ministry of Health and Prevention. "Open Access Regulations". [https://www.mohap.gov.ae/en/openData/Pages/research-bank-uae.aspx] Accessed 19 January 2021.
- [3] Dubai Health Authority [https://www.dha.gov.ae/en/pages/dhahome.aspx]. Accessed 24 January 2021.
- [4] The Department of Health of Abu Dhabi. [https://doh.gov.ae/]. Accessed 24 January 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: 0**

There is no evidence that public health and national security authorities have carried out an exercise to respond to a potential deliberate biological event (i.e., bioterrorism attack) or that there are 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.

The Joint External Evaluation (JEE) report completed in March 2017 commends the capacity of the National Emergency Crisis and Disasters Management Authority (NCEMA) as a national organization co-ordinating regular reporting between all local and federal organizations and setting up multi-sectoral committees to cover issues related to national disasters including suspected and/or confirmed biological events. The report notes that "joint planning occurs between health and security authorities" and "joint national and federal or local exercises or drills are conducted" [1]. But it does not mention exercises or standard operating procedures between public health and security authorities. This evidence and/or further relevant explanation are not available on the website of NCEMA and the Ministry of Health and Prevention (MOHAP) [2,3,4,5,6,7].

No publicly available evidence could be found of standard operating procedures, guidelines, MOUs, or other agreements between the public health and security authorities to respond to a potential deliberate biological event (i.e., bioterrorism attack). No evidence was found on the websites of MOHAP, NCEMA, and the Ministry of Defence [8,9,10]. No further evidence is available on the websites of the Dubai Health Authority or The Department of Health of Abu Dhabi [11,12].

[1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the United Arab Emirates". [https://apps.who.int/iris/bitstream/handle/10665/259456/WHO-WHE-CPI-REP-2017.57-eng.pdf?sequence=1&isAllowed=y]. Access 17 January 2021.

[2] National Emergency Crisis and Disasters Management Authority (NCEMA). "Publications". [https://www.ncema.gov.ae/en/media-center/publications.aspx]. Accessed 26 January 2021.

[3] National Emergency Crisis and Disasters Management Authority (NCEMA). "Archives". [https://www.ncema.gov.ae/en/media-center/ncema-archive.aspx]. Accessed 26 January 2021.

[4] National Emergency Crisis and Disasters Management Authority (NCEMA). "News". [https://www.ncema.gov.ae/en/media-center/news.aspx#page=1] Accessed 26 January 2021.

[5] Ministry of Health and Prevention. "Health Research Bank". [https://smartapps.moh.gov.ae/ords/f?p=105:522:14518362762757::NO:RP,RP,RIR,522::]. Accessed 26 January 2021.

[6] Ministry of Health and Prevention. "Projects and Initiatives". [http://www.mohap.gov.ae/ar/aboutus/Pages/ProjectandInitiatives.aspx]. Accessed 26 January 2021.

[7] Ministry of Health and Prevention. "Events". [https://www.mohap.gov.ae/en/MediaCenter/Pages/events.aspx]. Accessed 26 January 2021.

[8] Ministry of Health and Prevention. "Open Data". [http://www.mohap.gov.ae/ar/OpenData/Pages/default.aspx]. Accessed 26 January 2021.

[9] National Emergency Crisis and Disasters Management Authority. "Laws and Legislations". [https://www.ncema.gov.ae/en/about-ncema/laws-and-legislation.aspx]. Accessed 26 January 2021.

[10] Ministry of Defence. [https://www.mod.gov.ae/]. Accessed 26 January 2021.

[11] Dubai Health Authority [https://www.dha.gov.ae/en/pages/dhahome.aspx]. Accessed 24 January 2021.

[12] The Department of Health of Abu Dhabi. [https://doh.gov.ae/]. Accessed 24 January 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

Insufficient evidence was found that the strategy (or other legislation, regulation, or strategy document) used to guide national public health response outlines how messages will reach populations and sectors with different communications needs.

No evidence was found in the Federal Laws of information outlining how messages will reach populations and sectors with different communications needs [1,2]. Furthermore, the Joint External Evaluation (JEE) report for the UAE refers to the presence of mechanisms to reach populations with different communication needs, which it notes need to be "enhanced" [3]. However, no further evidence/explanation is available in the report or on the websites of the Ministry of Health and Prevention [4,5].

[1] Government of the UAE. Federal Law No. 14 of 2014. "Concerning the Control of Communicable Diseases" <https://u.ae/en/information-and-services/health-and-fitness/combating-communicable-diseases>. Accessed 24 January 2021.

[2] Ministry of Climate Change and Environment, 2013. Federal Law No. 8 of 2013. "On the Prevention and Control of Contagious Animal Diseases". [<https://www.moccae.gov.ae/ar/open-data.aspx#page=1>]. Accessed 24 January 2021.

[3] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the United Arab Emirates". [<https://apps.who.int/iris/bitstream/handle/10665/259456/WHO-WHE-CPI-REP-2017.57-eng.pdf?sequence=1&isAllowed=y>]. Accessed 17 January 2021.

[4] Ministry of Health and Prevention. "Health Research Bank".

[<https://smartapps.moh.gov.ae/ords/f?p=105:522:14518362762757::NO:RP,RP,RIR,522::>]. Accessed 24 January 2021.

[5] Ministry of Health and Prevention. "Projects and Initiatives".

[<http://www.mohap.gov.ae/ar/aboutus/Pages/ProjectandInitiatives.aspx>]. Accessed 26 January 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: 1

Evidence was found that the UAE has in place, in its national public health emergency response plan, a section detailing a risk communication plan that is specifically intended for use during a public health emergency.

According to the Joint External Evaluation (JEE) report completed in 2017, there is a National Protocol of Communication Pathway for Reporting Acute Public Health Events, which was published by the Ministry of Health and Prevention (MOHAP) in 2017, together with a MOHAP Media Response Plan in the Ministry of Health and Prevention, and a Media and Public Communication Emergency Supporting Plan within the National Emergency Crisis and Disasters Management Authority (NCEMA), which specifically address the issue of a section in the national public health emergency response plan detailing a risk communication plan [1]. However, neither of these documents could be found on the websites of the Ministry of Health and Prevention (MOHAP), Ministry of Defense, or the NCEMA [2,3,4,5,6,7]. No further evidence could be found on the websites of the Dubai Health Authority or The Department of Health of Abu Dhabi [8,9].

[1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the United Arab Emirates". [https://apps.who.int/iris/bitstream/handle/10665/259456/WHO-WHE-CPI-REP-2017.57-eng.pdf?sequence=1&isAllowed=y]. Accessed 17 January 2021.

[2] Ministry of Health and Prevention. "Health Research Bank". [https://smartapps.moh.gov.ae/ords/f?p=105:522:14518362762757::NO:RP,RP,RIR,522::]. Accessed 26 January 2021.

[3] Ministry of Health and Prevention. "Projects and Initiatives". [http://www.mohap.gov.ae/ar/aboutus/Pages/ProjectandInitiatives.aspx]. Accessed 26 January 2021

[4] Ministry of Health and Prevention. "Events". [https://www.mohap.gov.ae/en/MediaCenter/Pages/events.aspx]. Accessed 26 January 2021.

[5] Ministry of Health and Prevention. "Open Data". [http://www.mohap.gov.ae/ar/OpenData/Pages/default.aspx]. Accessed 26 January 2021.

[6] National Emergency Crisis and Disasters Management Authority. "Laws and Legislations". [https://www.ncema.gov.ae/en/about-ncema/laws-and-legislation.aspx]. Accessed 26 January 2021.

[7] Ministry of Defence. [https://www.mod.gov.ae/]. Accessed 26 January 2021

[8] Dubai Health Authority [https://www.dha.gov.ae/en/pages/dhahome.aspx]. Accessed 24 January 2021.

[9] The Department of Health of Abu Dhabi [https://doh.gov.ae/]. Accessed 24 January 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: 0**

There is insufficient evidence that UAE 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) that was conducted by the World Health Organization (WHO) in March 2017. There is a list of official and trained spokespersons in the Ministry of Health and Prevention (MOPH) and all health authorities who are responsible for communicating all the messages in clear and effective ways; however, it does not mention that there is a specific position designated as a spokesperson [1].

No further publicly available evidence could be found in the official portal of the government of UAE. No evidence was found on the website of the MOHAP and the National Emergency Crisis and Disasters Management Authority (NCEMA), and the Ministry of Defence [2,3,4,5,6,7]. No further evidence is available on the websites of the Dubai Health Authority or The Department of Health of Abu Dhabi [8,9].

- [1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the United Arab Emirates". [<https://apps.who.int/iris/bitstream/handle/10665/259456/WHO-WHE-CPI-REP-2017.57-eng.pdf?sequence=1&isAllowed=y>]. Accessed 17 January 2021.
- [2] Ministry of Health and Prevention. "Health Research Bank". [<https://smartapps.moh.gov.ae/ords/f?p=105:522:14518362762757::NO:RP,RP,RIR,522::>]. Accessed 26 January 2021.
- [3] Ministry of Health and Prevention. "Projects and Initiatives". [<http://www.mohap.gov.ae/ar/aboutus/Pages/ProjectandInitiatives.aspx>]. Accessed 26 January 2021.
- [4] Ministry of Health and Prevention. "Events". [<https://www.mohap.gov.ae/en/MediaCenter/Pages/events.aspx>]. Accessed 26 January 2021.
- [5] Ministry of Health and Prevention. "Open Data". [<http://www.mohap.gov.ae/ar/OpenData/Pages/default.aspx>]. Accessed 26 January 2021.
- [6] National Emergency Crisis and Disasters Management Authority. "Laws and Legislations". [<https://www.ncema.gov.ae/en/about-ncema/laws-and-legislation.aspx>]. Accessed 26 January 2021.
- [7] Ministry of Defence. [<https://www.mod.gov.ae/>]. Accessed 26 January 2021.
- [8] Dubai Health Authority [<https://www.dha.gov.ae/en/pages/dhahome.aspx>]. Accessed 24 January 2021.
- [9] The Department of Health of Abu Dhabi. [<https://doh.gov.ae/>]. Accessed 24 January 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: 1**

Evidence was found that the public health system shares information only during active emergencies but does not regularly utilize online media platforms.

The official media office of UAE uses social media platforms such as Twitter to communicate the news, guidelines, and updates about any disease or pandemic, also, to raise awareness of communicable diseases, such as MERS-COV and zoonotic diseases. The Twitter pages of the Ministry of Health, the national emergency crisis and disasters management authority and the government of UAE are very active, up-to-date, and informative. However, they seem to share non-promotional information on health concerns only during active emergencies, and there is no evidence that they do so on a regular basis [1,2,3,4].

Furthermore, according to the JEE report completed in March 2017, "reporting of zoonotic events and sharing of information through email, social media or phone calls is mandatory." Federal Law No. 8 of 2013 on the Prevention of Zoonotic Disease and Federal Law No. 14 of 2014 on the Control of Communicable/Infectious Disease also mandate that the public be informed about public health emergencies through social media and any means possible [5,6,7].

- [1] The Official Page of the Government of UAE on Twitter. [<https://twitter.com/uaegov>]. Accessed 26 January 2021.
- [2] The Official Page of the Media Office of Abu Dhabi. [<https://twitter.com/admediaoffice/status/1350473115629981696>].
- [3] The Official Page of National Emergency Crisis and Disaster Management Authority (NCEMA)

[<https://twitter.com/NCEMAUAE>]. Accessed 26 January 2021.

[4] The Official Page of the Ministry of Health and Prevention (MOHAP) on Twitter. [<https://twitter.com/mohapuae>]. Accessed 26 January 2021.

[5] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the United Arab Emirates". [<https://apps.who.int/iris/bitstream/handle/10665/259456/WHO-WHE-CPI-REP-2017.57-eng.pdf?sequence=1&isAllowed=y>]. Accessed 17 January 2021.

[6] Government of the UAE. Federal Law No. 14 of 2014. "Concerning the Control of Communicable Diseases". [<https://u.ae/en/information-and-services/health-and-fitness/combating-communicable-diseases>]

[7] Ministry of Climate Change and Environment, 2013. Federal Law No. 8 of 2013. "On the Prevention and Control of Contagious Animal Diseases". [<https://www.moccae.gov.ae/ar/open-data.aspx#page=1>]. Accessed 24 January 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**

No evidence was found that UAE senior leaders (president or ministers) have shared misinformation or disinformation on infectious diseases in the past two years. No evidence could be found on the most leading news agencies in the Middle East. There is no evidence on BBC Arabic, Middle East Monitor, Arab News, or Al-Ahram Weekly [1,2,3,4].

[1] British Broadcasting Corporation (BBC) Arabic. [<https://www.bbc.com/arabic>]. Accessed 26 January 2021.

[2] Arab News. [<https://www.arabnews.com/search/site/uae>]. Accessed 26 January 2021.

[3] Middle East Monitor. [<https://www.middleeastmonitor.com/>]. Accessed 26 January 2021.

[4] Alahram Weekly. [<http://english.ahram.org.eg/UI/Front/Search.aspx?Text=uae>]. Accessed 26 January 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: 99.15**

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: 200.63

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: 0

2019

Gallup; Economist Impact calculation

## 3.7 TRADE AND TRAVEL RESTRICTIONS

### 3.7.1 Trade restrictions

#### 3.7.1a

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

Yes = 0 , No = 1

Current Year Score: 1

No evidence was found that UAE has issued a restriction, without international/bilateral support, on the export/import of medical goods (e.g., medicines, oxygen, medical supplies, personal protective equipment (PPE)) due to an infectious disease outbreak. No evidence could be found on the official websites of the Annual Economic Report of UAE 2019, Ministry of Economy, Ministry of Health and Prevention, or the Government of UAE [1,2,3,4]. No further evidence was found in the official website of climate change and environment or the ministry of foreign affairs [5,6,7].

- [1] Annual Economic Report. 2019, [https://www.economy.gov.ae/EconomicalReportsEn/MOE\_Annual%20Economic%20Report\_2019\_.pdf#search=restriction%20on%20importing%20exporting%20medical%20products]. Accessed 2021.
- [2] The Ministry of Health and Prevention "Open Data". [https://www.mohap.gov.ae/en/OpenData/Pages/default.aspx]. Accessed 26 January 2021.
- [3] Government of UAE -UAE Customs. [https://u.ae/en/information-and-services/finance-and-investment/clearing-the-customs-and-paying-customs-duty]. Accessed 26 January 2021.
- [4] The Ministry of Economy. "Customs". [https://www.economy.gov.ae/English/searchcenter/Pages/results.aspx?k=ALL(restriction%20on%20exporting%20importing%20medical%20products)]. Accessed 26 January 2021.
- [5] Ministry of Climate Change and Environment. "Initiatives". [https://www.moccae.gov.ae/en/media-centre/initiatives.aspx]. Accessed 18 January 2021.
- [6] Ministry of Climate Change and Environment. "Publications". [https://www.moccae.gov.ae/en/media-centre/publications.aspx#page=1]. Accessed 18 January 2021.
- [7] The Ministry of Foreign Affairs and International Cooperation. [https://www.mofaic.gov.ae/en]. Accessed 26 February 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: 1**

No evidence was found that UAE has issued a restriction, without international/bilateral support, on the export/import of non-medical goods (e.g., medicines, oxygen, medical supplies, personal protective equipment (PPE)) due to an infectious disease outbreak.

No evidence could be found in the annual economic report of UAE 2019, Ministry of Economy, Ministry of Health and Prevention, the Government of UAE official website [1,2,3,4]. No further evidence was found on the official website of the ministry of climate change and environment or the Ministry of Foreign Affairs [5,6,7].

- [1] Annual Economic Report 2019. [https://www.economy.gov.ae/EconomicalReportsEn/MOE\_Annual%20Economic%20Report\_2019\_.pdf#search=restriction%20on%20importing%20exporting%20medical%20products]. Accessed 2021.
- [2] The Ministry of Health and Prevention. "Open Data". [https://www.mohap.gov.ae/en/OpenData/Pages/default.aspx]. Accessed 26 January 2021.
- [3] Government of UAE -UAE Customs. [https://u.ae/en/information-and-services/finance-and-investment/clearing-the-customs-and-paying-customs-duty]. Accessed 26 January 2021.
- [4] The Ministry of Economy "Customs" [https://www.economy.gov.ae/English/searchcenter/Pages/results.aspx?k=ALL(restriction%20on%20exporting%20importing%20medical%20products)]. Accessed 26 January 2021.
- [5] Ministry of Climate Change and Environment. "Initiatives". [https://www.moccae.gov.ae/en/media-centre/initiatives.aspx]. Accessed 18 January 2021.
- [6] Ministry of Climate Change and Environment. "Publications". [https://www.moccae.gov.ae/en/media-centre/publications.aspx#page=1]. Accessed 18 January 2021.
- [7] The Ministry of Foreign Affairs and International Cooperation. [https://www.mofaic.gov.ae/en]. Accessed 26 February

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 sufficient evidence that UAE in the past year has implemented a ban, without international/bilateral support, on travelers arriving from a specific country or countries due to an infectious disease outbreak.

Authorities in Dubai banned travelers from South Africa as of January 23, 2021, following the discovery of the COVID-19 variant [1]. Abu Dhabi has declared "green list" countries, which you can travel from, and applied restrictions on other countries [2]. The Government of UAE applied restrictions on all travelers, such as doing PCR test 96 hours before the travel date and another one upon arrival [3] in March 2020, UAE banned visa holders from all countries from entering the country for two weeks [4].

[1] United Arab Emirates (UAE). Authorities in Dubai Ban Travelers from South Africa as of Jan. 23 Following the Discovery of COVID-19 Variant/Update 55. January 2021. [<https://www.garda.com/crisis24/news-alerts/433751/uae-authorities-in-dubai-ban-travelers-from-south-africa-as-of-jan-23-following-discovery-of-covid-19-variant-update-55>]. Accessed 2021.

[2] Visit Abu Dhabi. "COVID-safe Travel To and From Abu Dhabi". [<https://visitabudhabi.ae/en/plan-your-trip/covid-safe-travel>].

[3] The Government of UAE. "Guidelines for Travelers". [<https://u.ae/en/information-and-services/justice-safety-and-the-law/handling-the-covid-19-outbreak/travelling-amid-covid-19/travelling-to-the-uae>]. Accessed 26 January 2021.

[4] Taruk, Natasha, CNBC. "UAE Bans its Citizens From Traveling, Bars Entry to Residency Visa Holders for Two Weeks, Suspends Work Permit Issuance". [<https://www.cnbc.com/2020/03/18/coronavirus-uae-bans-citizens-from-traveling-mandates-14-day-quarantine-for-entrants.html>]. Accessed 26 January 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: 252.78**

2018

WHO; national sources

#### **4.1.1b**

**Nurses and midwives per 100,000 people**

Input number

**Current Year Score: 572.71**

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**

Insufficient publicly available evidence could be found that the UAE has a public workforce strategy in place (which has been updated in the past five years) to identify fields where there is an insufficient workforce and strategies to address these shortcomings.

The Joint External Evaluation (JEE) report completed in March 2017 refers to the presence of "a developed education system and an evolving workforce strategy for the development of staff in the public health sector". This strategy, the report notes, "needs to be more regularly reviewed, updated and consistently implemented, and should be expanded to cover the entire public health workforce. Multidisciplinary human resource capacity is available at different levels of the public health system, although this capacity depends on professionals from overseas with a high turnover of expatriates, which remains a challenge" [1].

The National Health Policy (2014-2016) does not have provisions for the workforce and no updated policy document is available on the website of the Ministry of Health and Prevention (MOHAP). No further evidence could be found on the websites of MOHAP, the Ministry of Human Resources and Emiratisation, or the Ministry of Higher Education and Scientific Research [2,3,4,5,6,7,8].

[1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the United Arab Emirates". [<https://apps.who.int/iris/bitstream/handle/10665/259456/WHO-WHE-CPI-REP-2017.57-eng.pdf?sequence=1&isAllowed=y>]. Accessed 17 January 2021.

[2] Ministry of Health and Prevention. "National Health Policy". [<http://www.mohap.gov.ae/FlipBooks/PublicHealthPolicies/PHP-LAW-AR-68/mobile/index.html#p=1>]. Accessed 26 January 2021.

[3] Ministry of Health and Prevention. "Open Data". [<http://www.mohap.gov.ae/ar/OpenData/Pages/default.aspx>]. Accessed

26 January 2021.

[4] Ministry of Health and Prevention. "Public Health Policies".

[<http://www.mohap.gov.ae/ar/aboutus/Pages/PublicHealthPolicies.aspx>]. Accessed 26 January 2021.

[5] Ministry of Health and Prevention. "Health Research Bank".

[<https://smartapps.moh.gov.ae/ords/f?p=105:522:14518362762757::NO:RP,RP,RIR,522::>]. Accessed 26 January 2021.

[6] Ministry of Human Resources and Emiratization. "Labour Law". [<https://www.mohre.gov.ae/en/labour-law.aspx>].

Accessed 26 January 2021.

[7] Ministry of Human Resources and Emiratization. "Resolutions and Circulars". [<https://www.mohre.gov.ae/ar/laws-legislation/announcements.aspx>]. Accessed 26 January 2021.

[8] Ministry of Higher Education and Scientific Research. "Open Data".

[<https://www.moe.gov.ae/En/OpenData/pages/home.aspx>]. Accessed 26 January 2021.

## 4.1.2 Facilities capacity

### 4.1.2a

#### Hospital beds per 100,000 people

Input number

**Current Year Score: 138**

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**

Evidence was found that the UAE has the capacity to isolate patients with highly communicable diseases in a biocontainment patient care unit and/or patient isolation facility located within the country.

Rashid Hospital, one of the biggest hospitals in the country, which also hosts one of the reference laboratories, as part of Dubai Health Authority, has a dedicated and specialized Infection Control Office, which is responsible for hospital-wide activities and a highly secure and Isolation Ward and an Infectious Ward. The Isolation Ward is designated to handle diseases from leprosy to Crimean Congo Fever and is equipped with security, negative pressure ventilation systems, and separated rooms. [1,2,3]. Due to the outbreak of COVID-19, two new facilities to treat critically ill COVID-19 patients and isolate residents with moderate symptoms have been set up in Dubai [4].

[1] Dubai Health Authority. "Infectious Disease Unit".

[<https://www.dha.gov.ae/en/RashidHospital/pages/infectious%20diseases%20unit.aspx>]. Accessed 26 January 2021.

[2] Underwood M. 18 August 2010. "Isolation Ward Where No One is Alone". [<https://www.thenational.ae/UAE/isolation-ward-where-no-one-is-alone-1.522633>]. Accessed 26 January 2021.

[3] Bathish H. 29 June 2004. "Infectious Ward at Rashid Hospital is Full".

[<https://www.khaleejtimes.com/nation/general/infectious-ward-at-rashid-hospital-is-full>]. Accessed 26 January 2021.

[4] Coronavirus: Dubai Opens Critical Care Hospital and Isolation Unit to Treat Covid-19 Patients. June 2020. [https://www.thenationalnews.com/uae/health/coronavirus-dubai-opens-critical-care-hospital-and-isolation-unit-to-treat-covid-19-patients-1.1027477]. Accessed 26 January 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: 1

There is publicly available evidence that UAE has demonstrated capacity to expand isolation capacity in response to an infectious disease outbreak in the past two years or has developed, updated, or tested a plan to expand isolation capacity in response to an infectious disease outbreak in the past two years.

No evidence can be found on the official websites of the Ministry of Health and Prevention, The National Council of Emergency and Crisis Management Authority, or the Joint External Evaluation (JEE) conducted by the World Health Organization (WHO) in 2017 [1,2,3]. Furthermore, due to the outbreak of COVID-19, two new facilities to treat critically ill COVID-19 patients and isolate residents with moderate symptoms have been set up in Dubai [4].

[1] Ministry of Health and Prevention. "Open Access Regulations".

[https://www.mohap.gov.ae/en/openData/Pages/research-bank-uae.aspx]. Accessed 3 May 2021.

[2] National Emergency, Crisis and Disasters Management Authority. "Open Data". [https://www.ncema.gov.ae/ar/studies-and-statistics.aspx]. Accessed 23 January 2021.

[3] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the United Arab Emirates".

[https://apps.who.int/iris/bitstream/handle/10665/259456/WHO-WHE-CPI-REP-2017.57-eng.pdf?sequence=1]. Accessed 3 May 2021.

[4] Coronavirus: Dubai Opens Critical Care Hospital and Isolation Unit to Treat COVID-19 Patients. June 2020.

[https://www.thenationalnews.com/uae/health/coronavirus-dubai-opens-critical-care-hospital-and-isolation-unit-to-treat-covid-19-patients-1.1027477]. 26 January 2021.

## 4.2 SUPPLY CHAIN FOR HEALTH SYSTEM AND HEALTHCARE WORKERS

### 4.2.1 Routine health care and laboratory system supply

#### 4.2.1a

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

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

Current Year Score: 0

There is insufficient available evidence that there is a national procurement protocol in place that can be utilized by the Ministry of Health and Ministry of Agriculture for the acquisition of laboratory needs (such as equipment, reagents, and media) or medical supplies.

No evidence could be found in "Financial circular No. 13 of 2016 containing the Cabinet Resolution on amending some of the provisions of Procurement Regulation and Storehouses Management in Federal Government" [1]. Law No. 117 of 2014 on the Provisions of Technical Requirements for Veterinary Services, provides the general legal protocol for the procurement of the Ministry of Climate Change and Environment's laboratory needs [2].

No further publicly available evidence could be found on the websites of the Ministry of Health and Prevention, the national laboratory system, the Ministry of Higher Education and Scientific Research or the Ministry of Finance, or in the Joint External Evaluation (JEE) report completed in March 2017. [3,4,5,6,7,8]. Moreover, no evidence was found via the Dubai Health Authority or the Department of Health of Abu Dhabi [9,10].

[1] Financial circular NO. 13 of 2016 containing the Cabinet Resolution on Amending Some of the Provisions of Procurement Regulation and Storehouses Management in Federal Government.

[<https://www.mof.gov.ae/Ar/lawsAndPolitics/Circulars/Documents/.pdf>]. Accessed 27 January 2021.

[2] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the United Arab Emirates".

[<https://apps.who.int/iris/bitstream/handle/10665/259456/WHO-WHE-CPI-REP-2017.57-eng.pdf?sequence=1&isAllowed=y>]. Accessed 17 January 2021

[3] Al Qassimi Hospital Laboratory. [<http://www.hmaward.org.ae/profile.php?id=176>]. Accessed 22 January 2021.

[4] Sheikh Khalifa Medical City Laboratory. "Accreditations".

[<https://legacy.seha.ae/SKMC/English/aboutus/Pages/Formation-of-SKMC.aspx>]. Accessed 22 January 2021.

[5] Latifa Hospital Laboratory. [<https://www.dha.gov.ae/en/RashidHospital/pages/laboratory.aspx>]. Accessed 22 January 2021

[6] Ministry of Health and Prevention. "Open Access Regulations".

[<https://www.mohap.gov.ae/en/openData/Pages/research-bank-uae.aspx>]. Accessed 19 January 2021.

[7] Ministry of Health and Prevention. "Health Research Bank". [<https://www.mohap.gov.ae/en/openData/Pages/research-bank-uae.aspx>]. Accessed 20 January 2021.

[8] Central Veterinary Research Laboratory. "Publications". [<https://www.cvrl.ae/publication.php>]. Accessed 19 January 2021.

[9] Dubai Health Authority [<https://www.dha.gov.ae/en/pages/dhahome.aspx>]. Accessed 24 January 2021.

[10] The Department of Health of Abu Dhabi [<https://doh.gov.ae/>]. Accessed 24 January 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**

Evidence was found that the UAE maintains a stockpile of medical supplies including medical countermeasures for national use during a public health emergency, but there is insufficient evidence on what is included.

According to the Joint External Evaluation (JEE) that has been conducted by the World Health Organization (WHO) in 2017, "the UAE manages robust domestic systems for the development, stockpiling, distribution, and dispensing of medical

countermeasures, as well as the deployment of federal public health and medical personnel when and where they are needed." Moreover, the UAE scores 5 on the indicator of "system in place for sending and receiving medical countermeasures during a public health emergency", thereby indicating sustainable capacity. Moreover, it states that a formal agreement is in place with manufacturers and pharmaceutical agents, companies, and suppliers on providing a strategic medical stockpile and that sufficient quantities of a strategic stockpile are maintained at the national level for emergency use [1].

No further evidence could be found on the websites of the Ministry of Health and Prevention, the national laboratory system, the Dubai Health Authority, or the Department of Health of Abu Dhabi [2,3,4,5,6]. No further evidence could be found in the official portals of the Ministry of Defense, the Ministry of Economy, the Ministry of Energy and Infrastructure or the National Emergency and Crisis Management Authority (NCEMA) [7,8,9,10].

[1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the United Arab Emirates". [<https://apps.who.int/iris/bitstream/handle/10665/259456/WHO-WHE-CPI-REP-2017.57-eng.pdf?sequence=1&isAllowed=y>]. Accessed 17 January 2021.

[2] Ministry of Health and Prevention. "Open Access Regulations". [<https://www.mohap.gov.ae/en/openData/Pages/research-bank-uae.aspx>]. Accessed 19 January 2021.

[3] Ministry of Health and Prevention. "Health Research Bank". [<https://www.mohap.gov.ae/en/openData/Pages/research-bank-uae.aspx>]. Accessed 20 January 2021.

[4] Central Veterinary Research Laboratory. "Publications". [<https://www.cvrl.ae/publication.php>]. Accessed 19 January 2021.

[5] Dubai Health Authority. [<https://www.dha.gov.ae/en/pages/dhahome.aspx>]. Accessed 24 January 2021.

[6] The Department of Health of Abu Dhabi. [<https://doh.gov.ae/>]. Accessed 24 January 2021.

[7] Ministry of Defence. [<https://www.mod.gov.ae/>]. Accessed 26 January 2021.

[8] The Ministry of Economy, Open Data. [<https://www.economy.gov.ae/english/open-data/pages/open-data.aspx>]. Accessed 26 February 2021.

[9] The Ministry of Energy and Infrastructure, Open Data. [<https://www.moid.gov.ae/en-us/OpenData/Pages/Open-Data.aspx>]. Accessed 26 February 2021.

[10] National Emergency Crisis and Disasters Management Authority. "Laws and Legislations". [<https://www.ncema.gov.ae/en/about-ncema/laws-and-legislation.aspx>]. Accessed 26 January 2021.

#### 4.2.2b

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

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

**Current Year Score: 0**

There is insufficient evidence that the UAE has a stockpile of laboratory supplies (e.g., reagents, media) for national use during a public health emergency.

No evidence could be found in the Joint External Evaluation (JEE) conducted by the World Health Organization (WHO) in March 2017. No evidence could be found on the websites of the Ministry of the Health and Prevention, Central Laboratory System, the largest three laboratories in UAE (Latifa, Sheikh Khalifa, and AlQasimmij], Dubai Health Authority, or The Department of Health of Abu Dhabi [1,2,3,4,5,6,7,8,9]. No further evidence could be found in the official portals of the Ministry of Defense, the Ministry of Economy, the Ministry of Energy and Infrastructure, or the National Emergency and Crisis Management Authority (NCEMA) [10,11,12,13].

- [1] The Department of Health of Abu Dhabi [<https://doh.gov.ae/>]. Accessed 24 January 2021.
- [2] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the United Arab Emirates". [<https://apps.who.int/iris/bitstream/handle/10665/259456/WHO-WHE-CPI-REP-2017.57-eng.pdf?sequence=1&isAllowed=y>]. Accessed 17 January 2021.
- [3] Al Qassimi Hospital Laboratory. [<http://www.hmaward.org.ae/profile.php?id=176>]. Accessed 22 January 2021.
- [4] Sheikh Khalifa Medical City Laboratory. "Accreditations". [<https://legacy.seha.ae/SKMC/English/aboutus/Pages/Formation-of-SKMC.aspx>]. Accessed 22 January 2021.
- [5] Latifa Hospital Laboratory. [<https://www.dha.gov.ae/en/RashidHospital/pages/laboratory.aspx>]. Accessed 22 January 2021.
- [6] Ministry of Health and Prevention. "Open Access Regulations". [<https://www.mohap.gov.ae/en/openData/Pages/research-bank-uae.aspx>]. Accessed 19 January 2021.
- [7] Ministry of Health and Prevention. "Health Research Bank". [<https://www.mohap.gov.ae/en/openData/Pages/research-bank-uae.aspx>]. Accessed 20 January 2021.
- [8] Central Veterinary Research Laboratory. "Publications". [<https://www.cvrl.ae/publication.php>]. Accessed 19 January 2021.
- [9] Dubai Health Authority. [<https://www.dha.gov.ae/en/pages/dhahome.aspx>]. Accessed 24 January 2021.
- [10] Ministry of Defence. [<https://www.mod.gov.ae/>]. Accessed 26 January 2021.
- [11] The Ministry of Economy, Open Data. [<https://www.economy.gov.ae/english/open-data/pages/open-data.aspx>]. Accessed 26 February 2021.
- [12] The Ministry of Energy and Infrastructure, Open Data. [<https://www.moid.gov.ae/en-us/OpenData/Pages/Open-Data.aspx>]. Accessed February 26, 2021.
- [13] National Emergency Crisis and Disasters Management Authority. "Laws and Legislations". [<https://www.ncema.gov.ae/en/about-ncema/laws-and-legislation.aspx>]. Accessed 26 January 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 the UAE conducts or requires an annual review of the national stockpile to ensure the supply is sufficient for a public health emergency.

No evidence could be found in the Joint External Evaluation (JEE) conducted by the World Health Organization (WHO) in 2017. No evidence could be found on the websites of the Ministry of the Health and Prevention, Central Laboratory System, the largest three laboratories in UAE (Latifa, Sheikh Khalifa, and AlQasimmi), Dubai Health Authority, or The Department of Health of Abu Dhabi [1,2,3,4,5,6,7,8,9].

Although there is sufficient evidence that UAE signed an agreement with Novartis to strengthen the drug stockpile and this includes 31 different types of drugs, no mention was found of periodical review for the stockpiles [10]. No further evidence could be found in the official portals of the Ministry of Defense, the Ministry of Economy, the Ministry of Energy and Infrastructure or the National Emergency and Crisis Management Authority (NCEMA) [11,12,13,14].

- [1] The Department of Health of Abu Dhabi [<https://doh.gov.ae/>]. Accessed 24 January 2021.
- [2] World Health Organisation (WHO). "Joint External Evaluation of IHR Core Capacities of the United Arab Emirates". [<https://apps.who.int/iris/bitstream/handle/10665/259456/WHO-WHE-CPI-REP-2017.57-eng.pdf?sequence=1&isAllowed=y>]. Accessed 17 January 2021.

- [3] Al Qassimi Hospital Laboratory. [<http://www.hmaward.org.ae/profile.php?id=176>]. Accessed 22 January 2021.
- [4] Sheikh Khalifa Medical City Laboratory. "Accreditations". [<https://legacy.seha.ae/SKMC/English/aboutus/Pages/Formation-of-SKMC.aspx>]. Accessed 22 January 2021.
- [5] Latifa Hospital Laboratory. [<https://www.dha.gov.ae/en/RashidHospital/pages/laboratory.aspx>]. Accessed 22 January 2021
- [6] Ministry of Health and Prevention. "Open Access Regulations". [<https://www.mohap.gov.ae/en/openData/Pages/research-bank-uae.aspx>]. Accessed 19 January 2021
- [7] Ministry of Health and Prevention. "Health Research Bank". [<https://www.mohap.gov.ae/en/openData/Pages/research-bank-uae.aspx>]. Accessed on January 20th, 2021.
- [8] Central Veterinary Research Laboratory. "Publications". [<https://www.cvgl.ae/publication.php>]. Accessed 19 January 2021.
- [9] Dubai Health Authority [<https://www.dha.gov.ae/en/pages/dhahome.aspx>]. Accessed 24 January 2021.
- [10] The Ministry of Health and Prevention. May 2019. "MoHAP and Novartis Ink Agreement to Strengthen the Strategic Drug Stockpile". [<https://www.mohap.gov.ae/en/MediaCenter/News/Pages/2101.aspx>]. Accessed 27 January 2021.
- [11] Ministry of Defence. [<https://www.mod.gov.ae/>]. Accessed 26 January 2021.
- [12] The Ministry of Economy, Open Data., [<https://www.economy.gov.ae/english/open-data/pages/open-data.aspx>]. Accessed 26 February 2021.
- [13] The Ministry of Energy and Infrastructure, Open Data. [<https://www.moid.gov.ae/en-us/OpenData/Pages/Open-Data.aspx>]. Accessed 26 February 2021.
- [14] National Emergency Crisis and Disasters Management Authority. "Laws and Legislations". [<https://www.ncema.gov.ae/en/about-ncema/laws-and-legislation.aspx>]. Accessed 26 January 2021.

## 4.2.3 Manufacturing and procurement for emergencies

### 4.2.3a

Does the country meet one of the following criteria?

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

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

**Current Year Score: 0**

There is insufficient publicly available evidence of a plan/agreement to leverage domestic manufacturing capacity to neither produce nor procure medical supplies (e.g., medical countermeasures (MCMs), medicines, vaccines, equipment, personal protective equipment (PPE)) for national use during a public health emergency.

According to the Joint External Evaluation (JEE) that was conducted by the World Health Organization (WHO) in March 2017, a formal agreement is in place with manufacturers and pharmaceutical agents, companies, and suppliers on providing a strategic medical stockpile. However, it is not mentioned whether those agents are local or international. Moreover, it is not clear whether or not "medical supplies here includes equipment and PPE". The report adds, "sufficient quantities of a strategic stockpile are maintained at the national level for emergency use," but, again, the type of stockpile is not defined [1].

No further evidence could be found on the websites of the Ministry of Health and Prevention, the national laboratory system, the national emergency and crisis management authority, the Dubai Health Authority, or the Department of Health of Abu Dhabi [2,3,4,5,6,7].

According to a 2020 news article, the UAE has provided more than 348 metric tonnes of aid (Medical supplies) to over 34 countries for COVID-19, supporting almost 3,48,000 medical professionals in the process, but it is not mentioned if the products were manufactured in the UAE or imported [8]. No further evidence could be found in the official portals of the Ministry of Defense, the Ministry of Economy, the Ministry of Energy and Infrastructure, or the National Emergency and Crisis Management Authority (NCEMA) [9,10,11,12].

- [1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the United Arab Emirates". [https://apps.who.int/iris/bitstream/handle/10665/259456/WHO-WHE-CPI-REP-2017.57-eng.pdf?sequence=1&isAllowed=y]. Accessed 17 January 2021.
- [2] National Emergency Crisis and Disasters Management Authority. "Publications". [https://www.ncema.gov.ae/en/media-center/publications.aspx]. Accessed 18 January 2021.
- [3] Ministry of Health and Prevention. "Open Access Regulations". [https://www.mohap.gov.ae/en/openData/Pages/research-bank-uae.aspx]. Accessed 19 January 2021.
- [4] Ministry of Health and Prevention. "Health Research Bank". [https://www.mohap.gov.ae/en/openData/Pages/research-bank-uae.aspx] accessed on January 20th, 2021.
- [5] Central Veterinary Research Laboratory. "Publications". [https://www.cvrl.ae/publication.php] Accessed 19 January 2021.
- [6] Dubai Health Authority [https://www.dha.gov.ae/en/pages/dhahome.aspx]. Accessed 24 January 2021.
- [7] The Department of Health of Abu Dhabi [https://doh.gov.ae/]. Accessed 24 January 2021.
- [8] Economic Times. May 2020. "UAE Sends 7 Metric Tonnes of Medical Supplies to Boost India's COVID-19 Fight". [https://economictimes.indiatimes.com/news/politics-and-nation/uae-sends-7-metric-tonnes-of-medical-supplies-to-boost-indias-covid-19-fight/articleshow/75507024.cms?from=mdr]. Accessed 27 January 2021.
- [9] Ministry of Defence. [https://www.mod.gov.ae/]. Accessed 26 January 2021.
- [10] The Ministry of Economy, Open Data. [https://www.economy.gov.ae/english/open-data/pages/open-data.aspx]. Accessed 26 February 2021.
- [11] The Ministry of Energy and Infrastructure, Open Data. [https://www.moid.gov.ae/en-us/OpenData/Pages/Open-Data.aspx]. Accessed 26 February 2021.
- [12] National Emergency Crisis and Disasters Management Authority. "Laws and Legislations". [https://www.ncema.gov.ae/en/about-ncema/laws-and-legislation.aspx]. Accessed 26 January 2021.

### 4.2.3b

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

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

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

**Current Year Score: 0**

There is insufficient publicly available data that UAE has a plan/agreement to leverage domestic manufacturing capacity to produce laboratory supplies (e.g., reagents, media) for national use during a public health emergency or a plan/mechanism to procure Laboratory supplies (e.g., reagents, media) for national use during a public health emergency.

According to the Joint External Evaluation (JEE) that was conducted by the World Health Organization (WHO) in March 2017, a formal agreement is in place with manufacturers and pharmaceutical agents, companies, and suppliers on providing a strategic medical stockpile (it is not mentioned whether those agents are local or international, neither is it mentioned if the supplies include laboratories supplies); the report adds that sufficient quantities of a strategic stockpile are maintained at the

national level for emergency use [1].

No additional evidence could be found via the Ministry of Health and Prevention, the National Emergency Crisis and Disasters Management Authority, the Dubai Health Authority, or any other national and sub-national sources [2,3,4,5,6].

[1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the United Arab Emirates". [https://apps.who.int/iris/bitstream/handle/10665/259456/WHO-WHE-CPI-REP-2017.57-eng.pdf?sequence=1&isAllowed=y]. Accessed 17 January 2021.

[2] National Emergency Crisis and Disasters Management Authority. "Publications". [https://www.ncema.gov.ae/en/media-center/publications.aspx]. Accessed 18 January 2021.

[3] Ministry of Health and Prevention. "Open Access Regulations". [https://www.mohap.gov.ae/en/openData/Pages/research-bank-uae.aspx]. Accessed 19 January 2021.

[4] Ministry of Health and Prevention. "Health Research Bank". https://www.mohap.gov.ae/en/openData/Pages/research-bank-uae.aspx]. Accessed 20 January 2021.

[5] Central Veterinary Research Laboratory. "Publications". [https://www.cvrl.ae/publication.php]. Accessed 19 January 2021.

[6] Dubai Health Authority [https://www.dha.gov.ae/en/pages/dhahome.aspx]. Accessed 24 January 2021.

[7] The Department of Health of Abu Dhabi [https://doh.gov.ae/]. Accessed 24 January 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 UAE has 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).

According to the Joint External Evaluation (JEE) that was conducted by the World Health Organization (WHO) in March 2017, "UAE manages robust domestic systems for the development, stockpiling, distribution and dispensing of medical countermeasures, as well as the deployment of federal public health and medical personnel when and where they are needed. The country needs to develop a plan, procedure or legal provision to distribute animal countermeasures" [1]. However, the actual dispensation plan is not elaborated further.

No further evidence could be found on the websites of the Ministry of Health and Prevention, the national laboratory system, the National Emergency Crisis and Disasters Management Authority, the Dubai Health Authority or the Department of Health of Abu Dhabi [2,3,4,5,6,7].

[1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the United Arab Emirates". [https://apps.who.int/iris/bitstream/handle/10665/259456/WHO-WHE-CPI-REP-2017.57-eng.pdf?sequence=1&isAllowed=y]. Accessed 17 January 2021.

- [2] National Emergency Crisis and Disasters Management Authority. "Publications". [<https://www.ncema.gov.ae/en/media-center/publications.aspx>]. Accessed 18 January 2021.
- [3] Ministry of Health and Prevention. "Open Access Regulations". [<https://www.mohap.gov.ae/en/openData/Pages/research-bank-uae.aspx>]. Accessed 19 January 2021.
- [4] Ministry of Health and Prevention. "Health Research Bank". [<https://www.mohap.gov.ae/en/openData/Pages/research-bank-uae.aspx>]. Accessed 20 January 2021.
- [5] Central Veterinary Research Laboratory. "Publications". [<https://www.cvrl.ae/publication.php>]. Accessed 19 January 2021.
- [6] Dubai Health Authority [<https://www.dha.gov.ae/en/pages/dhahome.aspx>]. Accessed 24 January 2021.
- [7] The Department of Health of Abu Dhabi [<https://doh.gov.ae/>]. Accessed 24 January 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**

Insufficient publicly available evidence could be found that the UAE has a plan in place to receive health personnel from other countries to respond to a public health emergency.

The Joint External Evaluation (JEE) report, completed in March 2017, provides rather ambiguous evidence. It notes, "the UAE has developed Standard Operating Procedures (SOP) for personnel deployment within the National Strategic Framework" and immediately follows by adding under "Recommendations for Priority Actions" that the UAE needs to "develop SOPs for sending and receiving personnel during public health emergencies." Neither the actual document of the National Strategic Framework nor the SOPs that the report refers to could be found on the websites of the National Emergency Crisis and Disasters Management Authority, the Ministry of Health, and Prevention, or the Ministry of Defense [1,2,3,4,5,6,7].

- [1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the United Arab Emirates". [<https://apps.who.int/iris/bitstream/handle/10665/259456/WHO-WHE-CPI-REP-2017.57-eng.pdf?sequence=1&isAllowed=y>]. Accessed 17 January 2021.
- [2] National Emergency Crisis and Disasters Management Authority. "Publications". [<https://www.ncema.gov.ae/en/media-center/publications.aspx>]. Accessed 18 January 2021.
- [3] Ministry of Health and Prevention. "Open Access Regulations". [<https://www.mohap.gov.ae/en/openData/Pages/research-bank-uae.aspx>]. Accessed 19 January 2021.
- [4] Ministry of Health and Prevention. "Health Research Bank". [<https://www.mohap.gov.ae/en/openData/Pages/research-bank-uae.aspx>]. Accessed 20 January 2021.
- [5] Central Veterinary Research Laboratory. "Publications". [<https://www.cvrl.ae/publication.php>]. Accessed 19 January 2021.
- [6] Dubai Health Authority [<https://www.dha.gov.ae/en/pages/dhahome.aspx>]. Accessed 24 January 2021.
- [7] The Department of Health of Abu Dhabi [<https://doh.gov.ae/>]. Accessed 24 January 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: 465.75**

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**

Insufficient evidence was found that the government has issued 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.

Since 2016 the Ministry of Health and Prevention (MOHAP), the Federal Authority for Human Resources, the National Emergency Crisis Disaster Management, Dubai Health Authority, and Abu Dhabi Health Authority have come together to establish a new committee particularly working to establish an "integrated mechanism" for providing health services to health workers in general, and those who affected as a result of responding to a public health emergency [1]. However, this mechanism does not necessarily prioritize care to healthcare workers. Although it may guarantee them to care, this does not necessarily mean that they would be prioritized over others.

Furthermore, no evidence of such policies could be found on the websites of MOHAP or the National Emergency Crisis and Disasters Management Authority, or in the Joint External Evaluation (JEE) report completed in March 2017 [2,3,4,5,6,7].

[1] Ministry of Health and Prevention. "Ministry of Health Holds First Meeting for Committee on Promoting Safety and Occupational Health for Facility Workers". [<http://www.mohap.gov.ae/en/MediaCenter/News/Pages/1479.aspx>]. Accessed 27 January 2021.

[2] National Emergency Crisis and Disasters Management Authority. "Publications". [<https://www.ncema.gov.ae/en/media-center/publications.aspx>] last access 18 January 2021

[3] Ministry of Health and Prevention. "Open Access Regulations". [<https://www.mohap.gov.ae/en/openData/Pages/research-bank-uae.aspx>]. Accessed 19 January 2021.

[4] Ministry of Health and Prevention. "Health Research Bank". [<https://www.mohap.gov.ae/en/openData/Pages/research-bank-uae.aspx>]. Accessed 20 January 2021.

[5] Central Veterinary Research Laboratory. "Publications". [<https://www.cvrl.ae/publication.php>]. Accessed 19 January 2021.

[6] Dubai Health Authority. [<https://www.dha.gov.ae/en/pages/dhahome.aspx>]. Accessed 24 January 2021.

[7] The Department of Health of Abu Dhabi. [<https://doh.gov.ae/>]. Accessed 24 January 2021.

[8] The Economic Times. May 2020. "UAE Sends 7 Metric Tonnes of Medical Supplies to Boost India's COVID-19 Fight". [<https://economictimes.indiatimes.com/news/politics-and-nation/uae-sends-7-metric-tonnes-of-medical-supplies-to-boost-indias-covid-19-fight/articleshow/75507024.cms?from=mdr>]. Accessed 27 January 2021.

[8] World Health Organisation (WHO). "Joint External Evaluation of IHR Core Capacities of the United Arab Emirates". [<https://apps.who.int/iris/bitstream/handle/10665/259456/WHO-WHE-CPI-REP-2017.57-eng.pdf?sequence=1&isAllowed=y>]. Accessed 17 January 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 of a system in place for public health officials and healthcare workers to communicate during a public health emergency in the UAE.

According to the Joint External Evaluation (JEE) that has been conducted by the World Health Organization (WHO) in 2017— in addition to the Emergency Operation Centres at the national, federal, and local levels, which provide communication and information tools and services, and a management system during a response to an emergency or emergency exercise—there is a communication network between health workers and the relevant officials, but it needs to be further developed [1]. The report does not provide details on the operations of this network. Thus, there is insufficient evidence that this is a system that can be specifically used for two-way communication between healthcare workers and public health officials.

Moreover, the Abu Dhabi Department of Health's Policy on Healthcare Emergency and Disaster Management for the Emirate of Abu Dhabi has been developed based on Federal Law by Decree No. 2 of 2011. The law sets the standards for "major incident disaster preparedness in healthcare" in Abu Dhabi specifically in relation to "hazard identification including risk assessment and impacts analysis; communication procedures and protocols; business continuity principles and requirements; management of CBRNE incidents (Chemical, Biological, Radiological, Nuclear, Explosive); and implementation of Terrestrial Trunked Radio (TETRA) radio communications" [2]. However, there is insufficient evidence that this is a system that can be specifically used for two-way communication between healthcare workers and public health officials and it does not apply to the entire country.

No further evidence could be found on the health care regulator manual of Abu Dhabi that was released in November 2017 [3]. No evidence could be found on the official website of the Ministry of Health and Prevention or the National Emergency and Crisis Management Authority [4,5].

[1] World Health Organisation (WHO). "Joint External Evaluation of IHR Core Capacities of the United Arab Emirates". [<https://apps.who.int/iris/bitstream/handle/10665/259456/WHO-WHE-CPI-REP-2017.57-eng.pdf?sequence=1&isAllowed=y>]. Accessed 17 January 2021.

[2] Emirates News Agency. "Abu Dhabi Health Policy to Improve Health System Disaster and Crisis Resilience". [<http://wam.ae/en/details/1395302681161>]. Accessed 27 January 2021.

[3] Health Care Regulator Manual, November 2017. [[file:///Users/ahmadabdelgalil/Desktop/Abdelgalil/The%20Economist/Sources/26.%20haad-regulator-manual-final-file\\_30dec12.pdf](file:///Users/ahmadabdelgalil/Desktop/Abdelgalil/The%20Economist/Sources/26.%20haad-regulator-manual-final-file_30dec12.pdf)] last access January 27, 2021.

[4] Ministry of Health and Prevention. "Open Data". [<http://www.mohap.gov.ae/ar/OpenData/Pages/default.aspx>]. Accessed 26 January 2021.

[5] National Emergency Crisis and Disasters Management Authority. "Laws and Legislations".

[<https://www.ncema.gov.ae/en/about-ncema/laws-and-legislation.aspx>]. Accessed 26 January 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 evidence of a system in place for public health officials and healthcare workers to communicate during a public health emergency in the UAE in the public or private sector.

According to the Joint External Evaluation that has been conducted by the World Health Organization in 2017, in addition to the Emergency Operation Centres at the national, federal, and local levels, which provide communication and information tools and services, and a management system during a response to an emergency or emergency exercise, there is a communication network between health workers and the relevant officials, but it needs to be further developed [1]. The report does not provide details on the operations of this network. Thus, there is insufficient evidence that this is a system that can be specifically used for two-way communication between healthcare workers and public health officials.

Moreover, the Abu Dhabi Department of Health's Policy on Healthcare Emergency and Disaster Management for the Emirate of Abu Dhabi has been developed based on Federal Law by Decree No. 2 of 2011. The law sets the standards for "major incident disaster preparedness in healthcare" in Abu Dhabi specifically in relation to "hazard identification including risk assessment and impacts analysis; communication procedures and protocols; business continuity principles and requirements; management of Chemical, Biological, Radiological, Nuclear, Explosive (CBRNE) incidents; and implementation of Terrestrial Trunked Radio (TETRA) radio communications" [2]. However, there is insufficient evidence that this is a system that can be specifically used for two-way communication between healthcare workers and public health officials and it does not apply to the entire country.

No further evidence could be found on the health care regulator manual of Abu Dhabi that was released in November 2017 [3]. No further evidence could be found on the health care regulator manual of Abu Dhabi that was released in November 2017 [3]. No evidence could be found on the official website of the Ministry of Health and Prevention or the National Emergency and Crisis Management Authority [4,5].

[1] World Health Organisation (WHO). "Joint External Evaluation of IHR Core Capacities of the United Arab Emirates". [<https://apps.who.int/iris/bitstream/handle/10665/259456/WHO-WHE-CPI-REP-2017.57-eng.pdf?sequence=1&isAllowed=y>]. Accessed 17 January 2021.

[2] Emirates News Agency. "Abu Dhabi Health Policy to Improve Health System Disaster and Crisis Resilience". [<http://wam.ae/en/details/1395302681161>]. Accessed 27 January 2021.

[3] Health Care Regulator Manual, November 2017. [[file:///Users/ahmadabdelgalil/Desktop/Abdelgalil/The%20Economist/Sources/26.%20haad-regulator-manual-final-file\\_30dec12.pdf](file:///Users/ahmadabdelgalil/Desktop/Abdelgalil/The%20Economist/Sources/26.%20haad-regulator-manual-final-file_30dec12.pdf)]. Accessed 27 January 2021.

[4] Ministry of Health and Prevention. "Open Data". [<http://www.mohap.gov.ae/ar/OpenData/Pages/default.aspx>]. Accessed 26 January 2021.

[5] National Emergency Crisis and Disasters Management Authority. "Laws and Legislations". [<https://www.ncema.gov.ae/en/about-ncema/laws-and-legislation.aspx>]. Accessed 26 January 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: 0**

Insufficient publicly available evidence could be found that the national public health system monitors for and tracks the number of healthcare-associated infections (HCAIs) that take place in healthcare facilities.

According to the WHO's Joint External Evaluation (JEE) report, completed in March 2017, at the national level, "the UAE has a National Plan for the Prevention, Reduction, and Elimination of HCAI and a National Steering Committee for the Prevention of Health Care-Associated Infections (HCAIs) co-ordinates relevant efforts across the UAE." However, the Plan and the Committee that the report refers to could not be found on the website of the Ministry of Health and Prevention. Hence, it can not be confirmed that that HCAI tracking is taking place in healthcare facilities according to such a plan [1,2,3,4].

At the Emirate level, evidence was found that Dubai Health Authority has a dedicated unit located at the Rashid Hospital named the Infectious Disease Unit. The Unit is "responsible for the hospital wide activities to reduce or prevent Hospital Acquired Infection for patient, visitor and staff. Preventive and Control of Infection Committee coordinates with multidisciplinary teams and infection control office to address and manage important issues related for both patients and health care workers" [5]. Although the evidence points to the existence of prevention and control programs, it does not demonstrate the existence of a monitoring system that tracks healthcare associated infections.

[1] World Health Organisation (WHO). "Joint External Evaluation of IHR Core Capacities of the United Arab Emirates". [<https://apps.who.int/iris/bitstream/handle/10665/259456/WHO-WHE-CPI-REP-2017.57-eng.pdf?sequence=1&isAllowed=y>]. Accessed 17 January 2021.

[2] Ministry of Health and Prevention. "Health Research Bank". [<https://smartapps.moh.gov.ae/ords/f?p=105:522:14518362762757::NO:RP,RP,RIR,522::>]. Accessed 17 January 2021.

[3] Ministry of Health and Prevention. "Projects and Initiatives". [<http://www.mohap.gov.ae/ar/aboutus/Pages/ProjectandInitiatives.aspx>]. Accessed 17 January 2021

[4] Ministry of Health and Prevention. "Public Health Policies". [<http://www.mohap.gov.ae/ar/aboutus/Pages/PublicHealthPolicies.aspx>]. Accessed 17 January 2021

[5] Dubai Health Authority, Rashid Hospital. "Infectious Disease Unit". [<https://www.dha.gov.ae/en/RashidHospital/pages/infectious%20diseases%20unit.aspx>]. Accessed 17 January 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: 0**

Evidence was found that there are requirements for ethical review (e.g., from an ethics committee or via Institutional Review Board approval) before beginning a clinical trial, but these requirements are not at the national level.

At the Emirate level, two policy documents pertaining to the Department of Health of Abu Dhabi and Dubai Health Authority outline procedures of ethical approval, thereby making it mandatory before any clinical trial begins [1,2]. No evidence could be found via the Ministry of Health and Prevention, the national laboratory system, or the Ministry of Higher Education and Scientific Research for regulations at the national level [3,4,5,6,7,8,9,10,11].

[1] Government of Dubai. Dubai Healthcare City Authority. "Regulation 6 of 2013".

[<https://www.dhcr.gov.ae/AboutDHCRDocuments/9-Research%20Regulation.pdf>]. Accessed 28 January 2021.

[2] Abu Dhabi Health Authority. "Standard Operating Procedures for Research Ethics Committees".

[<https://www.haad.ae/HAAD/LinkClick.aspx?fileticket=UL7o8f5mukc%3D&tabid=820>]. Accessed 28 January 2021.

[3] Ministry of Health and Prevention. "Health Research Bank".

[<https://smartapps.moh.gov.ae/ords/f?p=105:522:14518362762757::NO:RP,RP,RIR,522::>]. Accessed 28 January 2021.

[4] Ministry of Health and Prevention. "Projects and Initiatives".

[<http://www.mohap.gov.ae/ar/aboutus/Pages/ProjectandInitiatives.aspx>]. Accessed 28 January 2021.

[5] Ministry of Health and Prevention. "Public Health Policies".

[<http://www.mohap.gov.ae/ar/aboutus/Pages/PublicHealthPolicies.aspx>]. Accessed 28 January 2021.

[6] Central Veterinary Research Laboratory. "Publications". [<http://www.cvrl.ae/publication.php>]. Accessed 28 January 2021.

[7] Al Qassimi Hospital Laboratory. [<http://www.hmaward.org.ae/profile.php?id=176>]. Accessed 28 January 2021.

[8] Sheikh Khalifa Medical City Laboratory. [<https://www.seha.ae/>]. Accessed 28 January 2021.

[9] Latifa Hospital Laboratory. [<https://www.dha.gov.ae/en/RashidHospital/pages/laboratory.aspx>]. Accessed 28 January 2021.

[10] Institute for Health Metrics and Evaluation. "Research Articles". [<http://www.healthdata.org/results/research-articles>]. Accessed 28 January 2021.

[11] Ministry of Higher Education and Scientific Research. "Open Data".

[<https://www.moe.gov.ae/En/OpenData/pages/home.aspx>]. Accessed 28 January 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**

No evidence could be found that in the UAE that there is an expedited process for approving clinical trials for unregistered medical countermeasures to treat ongoing pandemics.

No evidence could be found on the official website of the Ministry of Health and Prevention, the national lab system, the Ministry of Higher Education and Scientific Research, or in academic studies. Moreover, no evidence could be found in the Joint External Evaluation (JEE) that was conducted by the World Health Organization (WHO) in March 2017 [1,2,3,4,5,6,7,8]. No evidence could also be found on the website of the Department of Health of Abu Dhabi and Dubai Health Authority [9,10].

- [1] World Health Organisation (WHO). "Joint External Evaluation of IHR Core Capacities of the United Arab Emirates". [https://apps.who.int/iris/bitstream/handle/10665/259456/WHO-WHE-CPI-REP-2017.57-eng.pdf?sequence=1&isAllowed=y]. Accessed 17 January 2021.
- [2] National Emergency Crisis and Disasters Management Authority. "Publications". [https://www.ncema.gov.ae/en/media-center/publications.aspx]. Accessed 18 January 2021.
- [3] Ministry of Health and Prevention. "Open Access Regulations". [https://www.mohap.gov.ae/en/openData/Pages/research-bank-uae.aspx]. Accessed 19 January 2021.
- [4] Ministry of Health and Prevention. "Health Research Bank". [https://www.mohap.gov.ae/en/openData/Pages/research-bank-uae.aspx]. Accessed 20 January 2021.
- [5] Central Veterinary Research Laboratory. "Publications". [https://www.cvrl.ae/publication.php] last access 19 January 2021.
- [6] Al Qassimi Hospital Laboratory. [http://www.hmaward.org.ae/profile.php?id=176]. Accessed 22 January 2021.
- [7] Sheikh Khalifa Medical City Laboratory. "Accreditations". [https://legacy.seha.ae/SKMC/English/aboutus/Pages/Formation-of-SKMC.aspx]. Accessed 22 January 2021.
- [8] Latifa Hospital Laboratory. [https://www.dha.gov.ae/en/RashidHospital/pages/laboratory.aspx]. Accessed 22 January 2021.
- [9] Dubai Health Authority [https://www.dha.gov.ae/en/pages/dhahome.aspx]. Accessed 24 January 2021.
- [10] The Department of Health of Abu Dhabi. [https://doh.gov.ae/]. Accessed 24 January 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**

Publicly available evidence was found that there is a government agency responsible for approving new medical countermeasures for humans.

The Drug Control Department under the supervision of the Ministry of Health and Prevention is responsible for approving new medical countermeasures for humans (Public health policy and Licensing sector). The following is the service description of the department: "This service enables clients to submit applications to register conventional, biological or other human pharmaceutical products for importation and trading within the UAE" [1].

No further publicly available evidence could be found on the Ministry of Higher Education and Scientific Research, the

national laboratory system, or academic studies [2,3,4,5,6,7,8,9,10].

[1] The Ministry of health and Prevention. "E-Services". [<https://www.mohap.gov.ae/en/services/registration-of-a-conventional-pharmaceutical-product>]. Accessed 27 February 2021.

[2] Ministry of Higher Education and Scientific Research. "Open Data". [<https://www.moe.gov.ae/En/OpenData/pages/home.aspx>]. Accessed 22 January 2021.

[3] Sheikh Khalifa Medical City Laboratory. "Accreditations". [<https://legacy.seha.ae/SKMC/English/aboutus/Pages/Formation-of-SKMC.aspx>]. Accessed 22 January 2021.

[4] Latifa Hospital Laboratory. [<https://www.dha.gov.ae/en/RashidHospital/pages/laboratory.aspx>]. Accessed 22 January 2021.

[5] Al Qassimi Hospital Laboratory. [<http://www.hmaward.org.ae/profile.php?id=176>]. Accessed 22 January 2021.

[6] Institute for Health Metrics and Evaluation. "Research Articles". [<http://www.healthdata.org/results/research-articles>]. Accessed 22 January 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 insufficient publicly available evidence that there is an expedited process for approving medical countermeasures for human use during public health emergencies in the UAE.

According to Al-Tamimi's (Law consulting firm in the Middle East) 2015 article entitled "Part II: Importation of Medical Devices and Drugs into the UAE." There is an exception to the general position under Federal law, which provides specific approvals for the importation of an unregistered medical product. The intention behind the exception is to allow for emergency medicines or medicines to treat rare conditions, which may not be registered due to the cost-prohibitive nature of registering a rarely consumed medicine. This system allows providers and patients to access treatments despite the lack of registration [1]. The article then explains the minimum list of documents to be submitted for securing approval from the Ministry of Health and Prevention. However, no further evidence could be found via the Ministry of Health and Prevention, the Ministry of Higher Education and Scientific Research, the national laboratory system, Joint External Evaluation (JEE), national emergency crisis, and disasters management authority or academic studies [1,2,3,4,5,6,7,8,9,10].

[1] Altamimi, Law Update, Part II: Importation of Medical Devices and Drugs into the UAE, 2015 [<https://www.tamimi.com/law-update-articles/part-ii-importation-of-medical-devices-and-drugs-into-the-uae/>]. Accessed 27 February 2021.

[2] National Emergency Crisis and Disasters Management Authority. "Publications". [<https://www.ncema.gov.ae/en/media-center/publications.aspx>]. Accessed 18 January 2021.

[3] Ministry of Health and Prevention. "Health Research Bank". [<https://smartapps.moh.gov.ae/ords/f?p=105:522:14518362762757::NO:RP,RP,RIR,522::>]. Accessed 24 January 2021.

[4] Ministry of Health and Prevention. "Projects and Initiatives". [<http://www.mohap.gov.ae/ar/aboutus/Pages/ProjectandInitiatives.aspx>]. Accessed 24 January 2021.

[5] Ministry of Health and Prevention. "Public Health Policies". [<http://www.mohap.gov.ae/ar/aboutus/Pages/PublicHealthPolicies.aspx>]. Accessed 24 January 2021.

[6] Al Qassimi Hospital Laboratory. [<http://www.hmaward.org.ae/profile.php?id=176>]. Accessed 22 January 2021.

[7] Sheikh Khalifa Medical City Laboratory. "Accreditations".

[<https://legacy.seha.ae/SKMC/English/aboutus/Pages/Formation-of-SKMC.aspx>]. Accessed 22 January 2021.

[8] Latifa Hospital Laboratory. [<https://www.dha.gov.ae/en/RashidHospital/pages/laboratory.aspx>]. Accessed 22 January 2021.

[9] Institute for Health Metrics and Evaluation. "Research Articles". [<http://www.healthdata.org/results/research-articles>]. Accessed 22 January 2021.

[10] Ministry of Higher Education and Scientific Research. "Open Data".

[<https://www.moe.gov.ae/En/OpenData/pages/home.aspx>]. Accessed 22 January 2021.

[11] World Health Organisation (WHO). "Joint External Evaluation of IHR Core Capacities of the United Arab Emirates".

[<https://apps.who.int/iris/bitstream/handle/10665/259456/WHO-WHE-CPI-REP-2017.57-eng.pdf?sequence=1&isAllowed=y>]. Accessed 17 January 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

Insufficient evidence was found that pandemics have been integrated into the national risk reduction strategy.

According to the Joint External Evaluation (JEE) report completed in March 2017, the National (Technical) Committee for Implementation of the International Health Regulations and Combating Health Pandemics was established in 2015, in line

with Ministerial Decree No. 236. As part of the work of the National Emergency Crisis and Disasters Management Authority (NCEMA), pandemics have been incorporated into the risk management and reduction frameworks [1]. Neither the actual document of Decree No. 236 nor a standalone national disaster risk reduction strategy for pandemics could be found on the websites of the Ministry of Health and Prevention (MOHAP) or NCEMA. No further explanation or evidence could be found via MOHAP or the NCEMA [2,3,4,5,6].

No further evidence could be found on the website of the Dubai Health Authority or the Department of Health of Abu Dhabi [7,8].

- [1] World Health Organisation (WHO). "Joint External Evaluation of IHR Core Capacities of the United Arab Emirates". [https://apps.who.int/iris/bitstream/handle/10665/259456/WHO-WHE-CPI-REP-2017.57-eng.pdf?sequence=1&isAllowed=y]. Accessed 17 January 2021.
- [2] Ministry of Health and Prevention. "Public Health Policies". [http://www.mohap.gov.ae/ar/aboutus/Pages/PublicHealthPolicies.aspx]. Accessed 24 January 2021.
- [3] Ministry of Health and Prevention. "Projects and Initiatives". [http://www.mohap.gov.ae/ar/aboutus/Pages/ProjectandInitiatives.aspx]. Accessed 24 January, 2021.
- [4] Ministry of Health and Prevention. "Health Research Bank". [https://smartapps.moh.gov.ae/ords/f?p=105:522:14518362762757::NO:RP,RP,RIR,522::]. Accessed 24 January 2021.
- [5] National Emergency Crisis and Disasters Management Authority. "Publications". [https://www.ncema.gov.ae/en/media-center/publications.aspx]. Accessed 18 January 2021.
- [6] National Emergency Crisis and Disasters Management Authority. "Planning and Preparedness Department". [https://www.ncema.gov.ae/ar/about-ncema/departments/planning-and-preparedness-department.aspx]. Accessed 18 January 2021.
- [7] The Department of Health of Abu Dhabi. [https://doh.gov.ae/]. Accessed 24 January 2021.
- [8] Dubai Health Authority. [https://www.dha.gov.ae/en/pages/dhahome.aspx.] Accessed 24 January 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 the UAE has cross-border agreements, with neighboring countries, with regard to response to public health emergencies.

According to the Joint External Evaluation (JEE) report, completed in March 2017, "several efforts have been made to ensure cross border safety and prevention of multiple health risks and hazards. Guidelines and Standard Operating Procedures (SOPs) have been developed accordingly for the Gulf Cooperation Council (GCC) countries. The focus of these guiding documents is to enhance access to unified health measures at ground crossings; increase health security by facilitating cross-border collaboration to implement IHR at the country and regional level; enhance surveillance for the early detection and rapid response to public health events; exchange information between the GCC concerning public health events of potential

national, regional and global concern, including preparedness measures to be put in place in the country related to any event" [1]. However, the actual guidelines and SOPs could not be found on the websites of the Ministry of Health and Prevention, the GCC, or the National Emergency Crisis and Disasters Management Authority [2,3,4,5,6,7,8,9].

No evidence could be found on the websites of the Dubai Health Authority or the Department of Health of Abu Dhabi [10,11].

[1] World Health Organisation (WHO). "Joint External Evaluation of IHR Core Capacities of the United Arab Emirates". [https://apps.who.int/iris/bitstream/handle/10665/259456/WHO-WHE-CPI-REP-2017.57-eng.pdf?sequence=1&isAllowed=y]. Accessed 17 January 2021.

[2] Ministry of Health and Prevention. "Projects and Initiatives". [http://www.mohap.gov.ae/ar/aboutus/Pages/ProjectandInitiatives.aspx]. Accessed 24 January 2021.

[3] Ministry of Health and Prevention. "Public Health Policies". [http://www.mohap.gov.ae/ar/aboutus/Pages/PublicHealthPolicies.aspx]. Accessed 24 January 2021.

[4] Gulf Cooperation Council. "Cooperation in the Field of Human and Environment Affairs". [http://www.gcc-sg.org/ar-sa/Pages/default.aspx]. Accessed 24 January 2021.

[5] National Emergency Crisis and Disasters Management Authority. "NECMA Magazine". [https://www.ncema.gov.ae/en/media-center/ncema-newsletters.aspx]. Accessed 24 January 2021.

[6] National Emergency Crisis and Disasters Management Authority. "Publications". [https://www.ncema.gov.ae/en/media-center/publications.aspx] last access 18 January 2021.

[7] National Emergency Crisis and Disasters Management Authority. "Legislations". [https://www.ncema.gov.ae/en/about-ncema/laws-and-legislation.aspx]. Accessed 18 January 2021.

[8] Gulf Cooperation Council (GCC). "Projects". [http://www.gcc-sg.org/ar-sa/CooperationAndAchievements/Projects/Pages/default.aspx]. Accessed 18 January 2021.

[9] Gulf Cooperation Council (GCC). "Achievements". [http://www.gcc-sg.org/ar-sa/CooperationAndAchievements/Pages/Home.aspx]. Accessed 18 January 2021.

[10] The Department of Health of Abu Dhabi [https://doh.gov.ae/] last accessed 24 January 2021.

[11] Dubai Health Authority [https://www.dha.gov.ae/en/pages/dhahome.aspx]. Accessed 24 January 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**

No publicly available evidence could be found that the UAE has cross-border agreements, protocols, or memorandums of understanding (MOUs) with neighboring countries, or as part of a regional group, with regard to animal health emergencies.

No evidence could be found in the Joint External Evaluation (JEE) report completed in March 2017 or via the Ministry of Health and Prevention, the Gulf Co-operation Council, the National Emergency Crisis and Disasters Management Authority, Dubai Health Authority, or the Department of Health of Abu Dhabi or the Ministry of Climate Change and Environment [1,2,3,4,5,6,7,8,9,10,11,12,13].

[1] World Health Organisation (WHO). "Joint External Evaluation of IHR Core Capacities of the United Arab Emirates". [https://apps.who.int/iris/bitstream/handle/10665/259456/WHO-WHE-CPI-REP-2017.57-eng.pdf?sequence=1&isAllowed=y]. Accessed 17 January 2021.

- [2] Ministry of Health and Prevention. "Projects and Initiatives".  
[<http://www.mohap.gov.ae/ar/aboutus/Pages/ProjectandInitiatives.aspx>]. Accessed 24 January, 2021.
- [3] Ministry of Health and Prevention. "Public Health Policies".  
[<http://www.mohap.gov.ae/ar/aboutus/Pages/PublicHealthPolicies.aspx>]. Accessed 24 January 2021.
- [4] Gulf Cooperation Council. "Cooperation in the Field of Human and Environment Affairs". [<http://www.gcc-sg.org/ar-sa/Pages/default.aspx>]. Accessed 24 January 2021.
- [5] National Emergency Crisis and Disasters Management Authority. "NECMA Magazine".  
[<https://www.ncema.gov.ae/en/media-center/ncema-newsletters.aspx>]. Accessed 24 January 2021.
- [6] National Emergency Crisis and Disasters Management Authority. "Publications". [<https://www.ncema.gov.ae/en/media-center/publications.aspx>]. Accessed 18 January 2021.
- [7] National Emergency Crisis and Disasters Management Authority. "Legislations". [<https://www.ncema.gov.ae/en/about-ncema/laws-and-legislation.aspx>]. Accessed 18 January 2021.
- [8] Gulf Cooperation Council (GCC). "Projects". [<http://www.gcc-sg.org/ar-sa/CooperationAndAchievements/Projects/Pages/default.aspx>]. Accessed 18 January 2021.
- [9] Gulf Cooperation Council (GCC). "Achievements". [<http://www.gcc-sg.org/ar-sa/CooperationAndAchievements/Pages/Home.aspx>] Accessed 18 January 2021.
- [10] The Department of Health of Abu Dhabi [<https://doh.gov.ae/>]. Accessed 24 January 2021.
- [11] Dubai Health Authority [<https://www.dha.gov.ae/en/pages/dhahome.aspx>]. Accessed 24 January 2021.
- [12] Ministry of Climate Change and Environment. "Initiatives". [<https://www.moccae.gov.ae/en/media-centre/initiatives.aspx>]. Accessed 18 January 2021.
- [13] Ministry of Climate Change and Environment. "Publications". [<https://www.moccae.gov.ae/en/media-centre/publications.aspx#page=1>]. Accessed 18 January 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: 1**

2021

Biological Weapons Convention

### 5.3.1c

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

Yes = 1, No = 0

Current Year Score: 1

2021

Biological Weapons Convention

### 5.3.1d

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

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

Current Year Score: 3

2021

Biological Weapons Convention

## 5.3.2 Voluntary memberships

### 5.3.2a

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

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

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

Current Year Score: 1

2021

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

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

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

#### 5.4.1a

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

Yes = 1 , No = 0

Current Year Score: 1

2021

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

#### 5.4.1b

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

Yes = 1 , No = 0

Current Year Score: 0

2021

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

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

#### 5.4.2a

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

Yes = 1 , No = 0

Current Year Score: 0

2021

OIE PVS assessments

#### 5.4.2b

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

Yes = 1 , No = 0

Current Year Score: 0

2021

OIE PVS assessments

## 5.5 FINANCING

### 5.5.1 National financing for epidemic preparedness

#### 5.5.1a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no clear evidence that the UAE has invested finances to improve capacity to address epidemic threats.

According to the website of the government of UAE, the government has allocated 7.9% of its budget for the health care sector, and 8.6% in 2017; however, it is not mentioned if any of those amounts was dedicated to building capacities to address epidemic threats [1].

No further evidence is available via the websites of the Ministry of Health and Prevention (MOHAP), Ministry of Foreign Affairs, Ministry of Climate Change and Environment, or via leading media outlets and academic papers [2,3,4,5,6].

[1] Official Portal of the Government of the UAE. "Good Health and Well-Being". [<https://u.ae/en/about-the-uae/leaving-no-one-behind/3goodhealthandwellbeing>]. Accessed 28 January 2021.

[2] Mohammad bin Rashid Al Maktoum Global Initiatives. [<https://www.almaktouminitiatives.org/en>]. Accessed 28 January 2021.

[3] Ministry of Health and Prevention. "Projects and Initiatives". [<http://www.mohap.gov.ae/ar/aboutus/Pages/ProjectandInitiatives.aspx>]. Accessed 24 January, 2021.

[4] Ministry of Health and Prevention. "Public Health Policies". [<http://www.mohap.gov.ae/ar/aboutus/Pages/PublicHealthPolicies.aspx>]. Accessed 24 January, 2021.

[5] National Emergency Crisis and Disasters Management Authority. "Publications". [<https://www.ncema.gov.ae/en/media-center/publications.aspx>]. Accessed 18 January 2021.

[6] Ministry of Foreign Affairs. "Humanitarian and Development Cooperation". [<https://www.mofaic.gov.ae/en/The-Ministry/The-Foreign-Policy/Humanitarian-and-Development-Cooperation>]. Accessed 24 January 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: 1

Evidence was found that there is a publicly identified special emergency public financing mechanism and funds that the country can access in the face of a public health emergency.

According to the Joint External Evaluation (JEE) report, completed in March 2017, the UAE has a specific budget line available that is updated annually for all emergencies including public health emergencies [1].

The UAE is not on the International Development Association list of eligible countries [2].

[1] World Health Organisation (WHO). "Joint External Evaluation of IHR Core Capacities of the United Arab Emirates". [<https://apps.who.int/iris/bitstream/handle/10665/259456/WHO-WHE-CPI-REP-2017.57-eng.pdf?sequence=1&isAllowed=y>]. Accessed 17 January 2021

[2] World Bank, Pandemic Emergency Financing Facility. [<https://www.worldbank.org/en/topic/pandemics/brief/fact-sheet-pandemic-emergency-financing-facility>]. Accessed 27 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 insufficient evidence that the UAE's President had made a commitment to support other countries or to their own countries to improve capacity to address epidemic threats by providing financing or support.

No publicly available evidence is available via the websites of the Ministry of Health and Prevention (MOHAP), Ministry of Foreign Affairs, Ministry of Climate Change and Environment, via leading media outlets and academic papers, United Nations (UN), or the World Bank [1,2,3,4,5,6,7].

[1] The Ministry of Health and Prevention. Media Center. [<https://www.mohap.gov.ae/en/MediaCenter/Pages/news.aspx>]. Accessed 27 February 2021.

[2] Ministry of Health and Prevention. "Projects and Initiatives". [<http://www.mohap.gov.ae/ar/aboutus/Pages/ProjectandInitiatives.aspx>]. Accessed 24 January 2021.

[3] Ministry of Health and Prevention. "Public Health Policies". [<http://www.mohap.gov.ae/ar/aboutus/Pages/PublicHealthPolicies.aspx>]. Accessed 24 January 2021.

[4] National Emergency Crisis and Disasters Management Authority. "Publications". [<https://www.ncema.gov.ae/en/media-center/publications.aspx>] Accessed 18 January 2021.

[5] Ministry of Foreign Affairs. "Humanitarian and Development Cooperation". [<https://www.mofaic.gov.ae/en/The-Ministry/The-Foreign-Policy/Humanitarian-and-Development-Cooperation>]. Accessed 24 January 2021.

[6] United Nations (UN). "News and Media". [<https://www.un.org/en/sections/news-and-media/>]. 27 February 2021.

[7] World Bank. United Arab of Emirates [<https://data.worldbank.org/country/AE>]. Accessed 27 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: 0**

There is insufficient evidence that the UAE had made a commitment to support other countries to improve capacity to address epidemic threats by providing financing or technical support or requested financing or technical support from donors to improve the country's domestic capacity to address epidemic threats.

According to a 2020 news article, the UAE sent more than 523 tonnes of aid to help 47 countries to help them during the outbreak of COVID-19; however, this evidence pertains to response efforts rather than future epidemic threats [1].

No evidence could be found on the official websites of Georgetown Infectious Disease Atlas (GIDA) Global Health Security Tracker, the Ministry of Health and Prevention, the National Emergency Crisis and Disasters Management Authority, the Ministry of Foreign Affairs, the United Nations, or the World Bank [2,3,4,5,6,7,8,9].

- [1] The National News. Clarke, Kelly, April 2020. [<https://www.thenationalnews.com/uae/government/coronavirus-uae-sends-more-than-523-tonnes-of-aid-to-help-47-countries-1.1010046>]. Accessed 28 January 2021.
- [2] Georgetown Infectious Disease Atlas (GIDA) Global Health Security Tracker —United Arab of Emirates. [<https://tracking.ghscosting.org/details/1074/funder>]. Accessed 27 February 2021.
- [3] The Ministry of Health and Prevention. "Media Center". [<https://www.mohap.gov.ae/en/MediaCenter/Pages/news.aspx>]. Accessed 27 February 2021.
- [4] Ministry of Health and Prevention. "Projects and Initiatives". [<http://www.mohap.gov.ae/ar/aboutus/Pages/ProjectandInitiatives.aspx>]. Accessed 24 January, 2021.
- [5] Ministry of Health and Prevention. "Public Health Policies". [<http://www.mohap.gov.ae/ar/aboutus/Pages/PublicHealthPolicies.aspx>]. Accessed 24 January, 2021.
- [6] National Emergency Crisis and Disasters Management Authority. "Publications". [<https://www.ncema.gov.ae/en/media-center/publications.aspx>]. Accessed 18 January 2021.
- [7] Ministry of Foreign Affairs. "Humanitarian and Development Cooperation". [<https://www.mofaic.gov.ae/en/The-Ministry/The-Foreign-Policy/Humanitarian-and-Development-Cooperation>]. Accessed 24 January 2021.
- [8] United Nations (UN). News and Media. [<https://www.un.org/en/sections/news-and-media/>]. Accessed 27 February 2021
- [9] World Bank—United Arab of Emirates (UAE). [<https://data.worldbank.org/country/AE>]. Accessed 27 February 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

Insufficient evidence was found that there is a publicly available plan or policy for sharing genetic data, epidemiological data, clinical specimens, and/or isolated specimens (biological materials) with international organizations and/or other countries that goes beyond influenza.

In 2018, the Department of Health of Abu Dhabi began a Genomic Initiative For Health Intelligence, creating a biobank database. The policy does not include sharing data with other countries or international organizations [1].

No such policy could be found via the Ministry of Health and Prevention, the Institute for Health Metrics and Evaluation, the national laboratory system, the Ministry of Higher Education and Scientific Research, the Ministry of Climate Change and Environment, or the Joint External Evaluation of the United Arab Emirates, conducted in 2017 [2,3,4,5,6,7,8,9,10,11,12,13,14]. No evidence could be found on the websites of the Dubai Health Authority and the Department of Health of Abu Dhabi, or via leading media sources [15,16].

- [1] Department of Health Abu Dhabi. "Genomic Initiative For Health Intelligence In Abu Dhabi". [https://www.haad.ae/HAAD/LinkClick.aspx?fileticket=cMSbjZ2kdt0%3D&tabid=790]. Accessed 29 January 2021.
- [2] Ministry of Health and Prevention. "Projects and Initiatives". [http://www.mohap.gov.ae/ar/aboutus/Pages/ProjectandInitiatives.aspx]. Accessed 24 January, 2021.
- [3] Ministry of Health and Prevention. "Public Health Policies". [http://www.mohap.gov.ae/ar/aboutus/Pages/PublicHealthPolicies.aspx]. Accessed 24 January, 2021.
- [4] Gulf Cooperation Council. "Cooperation in the Field of Human and Environment Affairs". [http://www.gcc-sg.org/ar-sa/Pages/default.aspx]. Accessed 24 January, 2021
- [5] National Emergency Crisis and Disasters Management Authority. "NECMA Magazine". [https://www.ncema.gov.ae/en/media-center/ncema-newsletters.aspx]. Accessed 24 January, 2021.
- [6] National Emergency Crisis and Disasters Management Authority. "Publications". [https://www.ncema.gov.ae/en/media-center/publications.aspx]. Accessed 18 January, 2021.
- [7] National Emergency Crisis and Disasters Management Authority. "Legislations". [https://www.ncema.gov.ae/en/about-ncema/laws-and-legislation.aspx]. Accessed 18 January, 2021.
- [8] Latifa Hospital Laboratory. [https://www.dha.gov.ae/en/RashidHospital/pages/laboratory.aspx]. Accessed 22 January 2021.
- [9] Sheikh Khalifa Medical City Laboratory. "Accreditations". [https://legacy.seha.ae/SKMC/English/aboutus/Pages/Formation-of-SKMC.aspx]. Accessed 22 January 2021.
- [10] World Health Organisation (WHO). "Joint External Evaluation of IHR Core Capacities of the United Arab Emirates". [https://apps.who.int/iris/bitstream/handle/10665/259456/WHO-WHE-CPI-REP-2017.57-eng.pdf?sequence=1&isAllowed=y]. Accessed 17 January 2021.
- [11] Institute for Health Metrics and Evaluation. "Research Articles". [http://www.healthdata.org/results/research-articles]. Accessed 22 January 2021.
- [12] Ministry of Higher Education and Scientific Research. "Open Data". [https://www.moe.gov.ae/En/OpenData/pages/home.aspx]. Accessed 22 January 2021.
- [13] Central Veterinary Research Laboratory. "Publications". [https://www.cvrl.ae/publication.php] Accessed 19 January 2021.
- [14] Al Qassimi Hospital Laboratory. [http://www.hmaward.org.ae/profile.php?id=176]. Accessed 22 January 2021.
- [15] Dubai Health Authority. [https://www.dha.gov.ae/en/pages/dhahome.aspx] Accessed 24 January 2021
- [16] The Department of Health of Abu Dhabi. [https://doh.gov.ae/]. Accessed 24 January 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 evidence that UAE has not shared any samples in accordance with the pandemic influenza preparedness framework.

No evidence is found via the country page on the website of the World Health Organization (WHO) [1].

No evidence could be found in the official website of the World Health Organization, the Ministry of Health and Prevention, The Ministry of Climate change and Environment, or the Ministry of Higher Education [2,3,4,5,6,7]. No further evidence could be found on the most leading news agencies in the Middle East [8,9,10]. No evidence could be found on the regional page of the WHO [11].

[1] World Health Organization (WHO), United Arab of Emirates (UAE).

[<https://www.who.int/data/gho/data/countries/country-details/GHO/united-arab-emirates?countryProfileId=d5d4f16c-a59d-4b71-9b50-1a44972545a1>]. Accessed 28 January 2021.

[2]. Ministry of Health and Prevention. "Projects and Initiatives".

[<http://www.mohap.gov.ae/ar/aboutus/Pages/ProjectandInitiatives.aspx>]. Accessed 24 January 2021.

[3] Ministry of Health and Prevention. "Public Health Policies".

[<http://www.mohap.gov.ae/ar/aboutus/Pages/PublicHealthPolicies.aspx>]. Accessed 24 January 2021.

[4] Dubai Health Authority. [<https://www.dha.gov.ae/en/pages/dhahome.aspx>]. Accessed 24 January 2021.

[5] The Department of Health of Abu Dhabi. [<https://doh.gov.ae/>]. Accessed 24 January 2021.

[6] Ministry of Higher Education and Scientific Research. "Open Data".

[<https://www.moe.gov.ae/En/OpenData/pages/home.aspx>]. Accessed 22 January 2021.

[7] Central Veterinary Research Laboratory. "Publications". [<https://www.cvrl.ae/publication.php>]. Accessed 19 January 2021.

[8] BBC Arabic. [<https://www.bbc.com/arabic>]. Accessed 26 January 2021.

[9] Arab News. [<https://www.arabnews.com/search/site/uae>]. Accessed 26 January 2021.

[10] Middle East Monitor [<https://www.middleeastmonitor.com/>]. Accessed 26 January 2021.

[4] Alahram Weekly. [<http://english.ahram.org.eg/UI/Front/Search.aspx?Text=uae>]. Accessed 26 January 2021.

[11] No Evidence could be found on the regional page of the World Health Organization (WHO).

[<https://www.who.int/about/regions/emro/en/>]. Accessed 27 February 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 evidence that UAE has not shared pandemic pathogen samples during an outbreak in the past two years. Sources were checked for evidence of sharing pandemic pathogen samples during an outbreak in the past two years, and especially for COVID-19, and no evidence could be found in the official websites of the World Health Organization (WHO), Ministry of Health and Prevention, Ministry of Climate change and Environment, or the Ministry of Higher Education [1, 2,3,4,5,6]. No

further evidence could be found on the most leading news agencies in the Middle East [7, 8,9,10]. No evidence could be found on the regional page of the World Health Organization (WHO) [11].

- [1] Ministry of Health and Prevention. "Projects and Initiatives".  
[<http://www.mohap.gov.ae/ar/aboutus/Pages/ProjectandInitiatives.aspx>]. Accessed 24 January 2021.
- [2] Ministry of Health and Prevention. "Public Health Policies".  
[<http://www.mohap.gov.ae/ar/aboutus/Pages/PublicHealthPolicies.aspx>]. Accessed 24 January 2021.
- [3] Dubai Health Authority [<https://www.dha.gov.ae/en/pages/dhahome.aspx>]. Accessed 24 January 2021.
- [4] The Department of Health of Abu Dhabi [<https://doh.gov.ae/>]. Accessed 24 January 2021.
- [5] Ministry of Higher Education and Scientific Research. "Open Data".  
[<https://www.moe.gov.ae/En/OpenData/pages/home.aspx>]. Accessed 22 January 2021.
- [6] Central Veterinary Research Laboratory. "Publications". [<https://www.cvrl.ae/publication.php>]. Accessed 19 January 2021.
- [7] BBC Arabic. [<https://www.bbc.com/arabic>]. Accessed 26 January 2021.
- [8] Arab News. [<https://www.arabnews.com/search/site/uae>]. Accessed 26 January 2021.
- [9] Middle East Monitor. [<https://www.middleeastmonitor.com/>] Accessed 26 January 2021.
- [10] Alahram Weekly. [<http://english.ahram.org.eg/Ui/Front/Search.aspx?Text=uae>]. Accessed 26 January 2021.
- [11] No evidence could be found on the regional page of the World Health Organization (WHO).  
[<https://www.who.int/about/regions/emro/en/>] Accessed 27 February 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: 3

2020

Economist Intelligence

##### 6.1.1b

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

Input number

Current Year Score: 2

2020

Economist Intelligence

**6.1.1c**

Excessive bureaucracy/red tape (Economist Intelligence score; 0-4, where 4=best)

Input number

Current Year Score: 4

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: 71

2020

Transparency International

**6.1.1f**

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

Input number

Current Year Score: 1

2020

Economist Intelligence

**6.1.1g**

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

Input number

Current Year Score: 1

2020

Economist Intelligence

## 6.1.2 Orderly transfers of power

### 6.1.2a

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

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

Current Year Score: 3

2021

Economist Intelligence

## 6.1.3 Risk of social unrest

### 6.1.3a

**What is the risk of disruptive social unrest?**

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

Current Year Score: 4

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: 3

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: 0

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: 1

2021

Economist Intelligence

## 6.2 SOCIO-ECONOMIC RESILIENCE

### 6.2.1 Literacy

#### 6.2.1a

Adult literacy rate, population 15+ years, both sexes (%)

Input number

Current Year Score: 93.23

2015

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: 0.89

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

2014

World Bank; Economist Impact

### 6.2.3b

#### Share of employment in the informal sector

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

**Current Year Score: 2**

No public data could be found on the share of the employment in the informal sector in the United Arab Emirates (UAE).

Furthermore, no evidence could be found in ILOSTAT, the official website of the International Labor Organization (ILO), World Bank, or the official portal of the government of UAE [1,2,3,4]. However, according to an ILO report on the employment in the informal sector, UAE is categorized in that graph as one of the countries that has between 50% and 74% of the share of the employment in the informal sector (Page no. 13), published in 2018 [5].

[1] International Labour Organization, ILOSTAT, UAE. [<https://ilostat.ilo.org/data/country-profiles/>]. Accessed 28 January 2021.

[2] International Labour Organization. "Country Profiles—UAE".

[[https://www.ilo.org/gateway/faces/home/statistics?\\_adf.ctrl-state=aup1thcyh\\_9&locale=EN&countryCode=ARE](https://www.ilo.org/gateway/faces/home/statistics?_adf.ctrl-state=aup1thcyh_9&locale=EN&countryCode=ARE)]. Accessed 28 January 2021.

[3] World Bank , UAE

[<https://www.worldbank.org/en/search?q=informal+sector+in+uae&currentTab=1&label=2473192505>]. Accessed 28 January 2021.

[4] The Government of UAE. "Statistics of Workforce". [<https://u.ae/en/information-and-services/jobs/uae-workforce#:~:text=The%20total%20labour%20force%20in,AED%2052%2C959%20million%20as%20wages>]. Accessed 28 January 2021.

[5] International Labour Organization (ILO). 2018. "Women and Men in the Informal Economy"

[[https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/documents/publication/wcms\\_626831.pdf](https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/documents/publication/wcms_626831.pdf)]. Accessed 28 January 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: 2**

2021

Economist Intelligence Democracy Index

## 6.2.5 Local media and reporting

### 6.2.5a

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

Input number

**Current Year Score: 0**

2021

Economist Intelligence Democracy Index

## 6.2.6 Inequality

### 6.2.6a

Gini coefficient

Scored 0-1, where 0=best

**Current Year Score: 0.26**

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: 4**

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: 4

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: 4

2021

Economist Intelligence

## 6.4 ENVIRONMENTAL RISKS

### 6.4.1 Urbanization

#### 6.4.1a

Urban population (% of total population)

Input number

Current Year Score: 86.79

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: 3

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: 77.81

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: 528.4

2019

WHO

#### 6.5.1c

Population ages 65 and above (% of total population)

Input number

Current Year Score: 1.16

2019

World Bank

### **6.5.1d**

Prevalence of current tobacco use (% of adults)

Input number

Current Year Score: 18.2

2018

World Bank

### **6.5.1e**

Prevalence of obesity among adults

Input number

Current Year Score: 31.7

2016

WHO

## **6.5.2 Access to potable water and sanitation**

### **6.5.2a**

Percentage of homes with access to at least basic water infrastructure

Input number

Current Year Score: 98.05

2017

UNICEF; Economist Impact

### **6.5.2b**

Percentage of homes with access to at least basic sanitation facilities

Input number

Current Year Score: 98.59

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: 1636.38

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