

# Iraq

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

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

### 1.1 ANTIMICROBIAL RESISTANCE (AMR)

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

##### 1.1.1a

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

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

**Current Year Score: 1**

There is a national AMR plan in Iraq, however, it does not fully cover surveillance, detection, and reporting of priority antimicrobial resistance AMR pathogens. According to the Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was conducted in March 2019, the "Ministry of Health (MoH) has approved the National Action Plan on Antimicrobial Resistance (NAP-AMR), which is awaiting approval by the Ministry of Agriculture (MoA). The NAP-AMR identifies the MoH and MoA as the main implementers, and nine other ministries and authorities as contributors to the implementation. The NAP-AMR has seven strategic priorities for Iraq to respond to the AMR threat, which are in line with the GAP"[1]. The report adds that "implementation of the NAP-AMR faces some challenges as there is currently no national surveillance of AMR pathogens under the 'One Health' approach, and no dedicated funding for AMR surveillance activities". Further, it mentions that Iraq has "enrolled to the WHO Global Antimicrobial Resistance Surveillance System (GLASS) platform and has reported AMR data during the last data call in 2018"[1]. The report is available on the WHO Library of National Action Plans page [2,3]. According to the "Iraq Action Plan of Antimicrobial Resistance (2018-2022)", "the future goal is to establish a national surveillance system for microbes that have resistant strains, work on the training of laboratory personnel, support these personnel to conduct scientific researches and to make sure that the laboratories are adequately equipped with all the devices and related consumables in order to have reliable data that support the process of AMR surveillance". The plan adds that "a coordinated mechanism for AMR reporting will be established in order to share information within the one health approach". However, the plan seems more focused on surveillance and data sharing rather than detection. In addition to the fact that the plan did not have a section dedicated to detection, no significant mention of the word "detect" was made in the entire plan [2].

[1] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 15 January 2021.

[2] "National Action Plan of Antimicrobial Resistance in Iraq".

[[apps.who.int/datacol/answer\\_upload.asp?survey\\_id=666&view\\_id=722&question\\_id=13163&answer\\_id=19958&respondent\\_id=281600](https://apps.who.int/datacol/answer_upload.asp?survey_id=666&view_id=722&question_id=13163&answer_id=19958&respondent_id=281600)]. Accessed 15 January 2021.

[3] World Health Organisation (WHO). "Library of National Action Plans". [<https://www.who.int/antimicrobial-resistance/national-action-plans/library/en/>]. Accessed 15 January 2021.

##### 1.1.1b

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

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

**Current Year Score: 1**

There is a national laboratory/laboratory system that tests for some priority AMR pathogens.

According to the Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, the "Ministry of Health (MoH) has approved the National Action Plan on Antimicrobial Resistance (NAP-AMR), which is awaiting approval by the Ministry of Agriculture (MoA). The NAP-AMR identifies the MoH and MoA as the main implementers, and nine other ministries and authorities as contributors to the implementation. The NAP-AMR has seven strategic priorities for Iraq to respond to the AMR threat, which are in line with the GAP"[1]. The JEE report adds that "implementation of the NAP-AMR faces some challenges as there is currently no national surveillance of AMR pathogens under the 'One Health' approach, and no dedicated funding for AMR surveillance activities". Further, it mentions that Iraq has "enrolled to the WHO Global Antimicrobial Resistance Surveillance System (GLASS) platform and has reported AMR data during the last data call in 2018". Additionally, the JEE report mentions that "the MoH has designated the Central Public Health Laboratory as the National Reference Laboratory (NRL) to identify and diagnose AMR pathogens", as well as that "the first phase of implementation of AMR surveillance (human sector) has started in four sentinel sites"[1].

The National Action Plan of Antimicrobial Resistance in Iraq is available on the WHO Library of National Action Plans page [2,3]. According to a 2011 World Health Organisation (WHO) Iraq country office report, there is a National Reference Laboratory in Baghdad for tuberculosis surveillance [4]. Additionally, there is a national reference laboratory for polio [5]. Two studies conducted by researchers at Kufa University, Babylon University, and the University of Zakho tested for incidences of antibiotic-resistant streptococcus pneumonia and E. Coli, respectively, but there is no indication of established sentinel sites or tests available for other 7+1 WHO priority pathogens [6, 7].

The Ministry of Health's Public Health Directorate Central Public Health Laboratory in Baghdad conducts tests for many infectious and noncommunicable diseases, such as malaria [8]. However, there is no indication that there are designated sentinel sites for 7+1 WHO priority pathogens besides tuberculosis in Iraq through the Ministry of Health, Ministry of Agriculture, or Ministry of Higher Education and Scientific Research websites [9, 10, 11].

[1] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 15 January 2021.

[2] "National Action Plan of Antimicrobial Resistance in Iraq".

[[apps.who.int/datacol/answer\\_upload.asp?survey\\_id=666&view\\_id=722&question\\_id=13163&answer\\_id=19958&respondent\\_id=281600](https://apps.who.int/datacol/answer_upload.asp?survey_id=666&view_id=722&question_id=13163&answer_id=19958&respondent_id=281600)]. Accessed 15 January 2021.

[3] World Health Organisation (WHO). "Library of National Action Plans". [<https://www.who.int/antimicrobial-resistance/national-action-plans/library/en/>]. Accessed 15 January 2021.

[4] World Health Organisation (WHO). Regional Office for the Eastern Mediterranean. "Iraq". [<http://www.emro.who.int/countries/irq/index.html>]. Accessed 15 January 2021.

[5] World Health Organisation (WHO). Polio Eradication Initiative. [<http://www.emro.who.int/polio/strategy-surveillance/polio-laboratory-network.html>]. Accessed 15 January 2021.

[6] Motaweq, Zahraa, et al. 29 June 2017. Environmental and Socio-economic Studies. "Antimicrobial susceptibility of Streptococcus pneumoniae isolates causing LRTI in Najaf, Iraq".

[<https://content.sciendo.com/view/journals/environ/5/2/article-p10.xml>]. Accessed 15 January 2021.

[7] Polse, Reem, et al. April 2016. International Journal of Research in Medical Sciences. "Prevalence and antimicrobial susceptibility patterns of uropathogenic E. coli among people in Zakho, Iraq". [<https://www.msjonline.org/index.php/ijrms/article/view/680/665>]. Accessed 15 January 2021.

[8] Iraqi Ministry of Health. Public Health Directorate. "A brief description of the Central [Public] Health Laboratory".

[[http://phd.iq/CMS.php?CMS\\_P=173](http://phd.iq/CMS.php?CMS_P=173)]. Accessed 15 January 2021.

[9] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 15 January 2021.

[10] Iraqi Ministry of Agriculture. [<http://www.zeraa.gov.iq/>]. Accessed 15 January 2021.

[11] Iraqi Ministry of Higher Education and Scientific Research. [<http://moheer.gov.iq/ar/>]. Accessed 15 January 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 no publicly available evidence that Iraq conducts environmental detection or surveillance activities for antimicrobial residues or antimicrobial resistant (AMR) organisms.

The Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, does not provide information that shows that Iraq conducts detection or surveillance activities for antimicrobial residues or antimicrobial-resistant (AMR) organisms [1]. Nor does the National Action Plan of Antimicrobial Resistance in Iraq provide such evidence [2,3].

According to an article published by researchers within the Ministry of Science and Technology (now the Ministry of Higher Education and Scientific Research) in January 2019, the Ministry conducted a study on the presence of antibiotics in drinking water in Baghdad [4]. However, there is no indication of a larger plan or program to continue to conduct such surveillance.

There is no other publicly available evidence regarding detection or surveillance activities for antimicrobial residues or AMR organisms through the Ministry of the Environment or the Ministry of Agriculture [5, 6]. Additionally, there is no information regarding an environmental surveillance program for antimicrobial residues or AMR organisms through the Ministry of Health website [7].

[1] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 15 January 2021.

[2] "National Action Plan of Antimicrobial Resistance in Iraq".

[[apps.who.int/datacol/answer\\_upload.asp?survey\\_id=666&view\\_id=722&question\\_id=13163&answer\\_id=19958&respondent\\_id=281600](https://apps.who.int/datacol/answer_upload.asp?survey_id=666&view_id=722&question_id=13163&answer_id=19958&respondent_id=281600)]. Accessed 15 January 2021.

[3] World Health Organisation (WHO). "Library of National Action Plans". [<https://www.who.int/antimicrobial-resistance/national-action-plans/library/en/>]. Accessed 15 January 2021.

[4] Mahmood, Ansam R. et al. 1 January 2019. Advances in Public Health. "Detection of Antibiotics in Drinking Water Treatment Plants in Baghdad City, Iraq". [[https://www.researchgate.net/publication/330054600\\_Detection\\_of\\_Antibiotics\\_in\\_Drinking\\_Water\\_Treatment\\_Plants\\_in\\_Baghdad\\_City\\_Iraq](https://www.researchgate.net/publication/330054600_Detection_of_Antibiotics_in_Drinking_Water_Treatment_Plants_in_Baghdad_City_Iraq)]. Accessed 15 January 2021.

[5] Iraqi Ministry of the Environment. [<http://www.moen.gov.iq/>]. Accessed 15 January 2021.

[6] Iraqi Ministry of Agriculture. [<http://www.zeraa.gov.iq/>]. Accessed 15 January 2021.

[7] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 15 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: 0**

There is no publicly available information that shows that Iraq has national legislation or regulation in place requiring prescriptions for antibiotic use for humans.

The Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, does not reveal information that shows that there is national legislation or regulation in place requiring prescriptions for antibiotic use for humans [1]. Nor does the National Action Plan of Antimicrobial Resistance in Iraq (2018-2022) show such evidence [2].

According to a study conducted by the Ministry of Higher Education and Scientific Research, antibiotic misuse due to inappropriate prescription of antibiotics and use without a prescription is widespread in Iraq, and there is no evidence that a prescription is required for antibiotic use [3]. A report from Médecins Sans Frontières in January 2019 noted that it was no longer necessary to obtain a prescription for antibiotics in Iraq [4].

There is no indication of legislation in place requiring a prescription for antibiotic use in humans through the Ministry of Health website, the Iraqi Parliament website, or the Iraqi Local Governance Law Library [5,6,7].

[1] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 15 January 2021.

[2] "National Action Plan of Antimicrobial Resistance in Iraq".

[[apps.who.int/datacol/answer\\_upload.asp?survey\\_id=666&view\\_id=722&question\\_id=13163&answer\\_id=19958&respondent\\_id=281600](https://apps.who.int/datacol/answer_upload.asp?survey_id=666&view_id=722&question_id=13163&answer_id=19958&respondent_id=281600)]. Accessed 15 January 2021.

[3] World Health Organisation (WHO). "Library of National Action Plans". [<https://www.who.int/antimicrobial-resistance/national-action-plans/library/en/>]. Accessed 15 January 2021.

[3] Kamil, Mustafa, et al. Iraqi Ministry of Higher Education and Scientific Research. 2017. "Awareness of Bacterial Resistance Among Iraqi Pharmacist". [<http://qu.edu.iq/repository/wp-content/uploads/2017/04/%D8%B5%D9%8A%D8%AF%D9%84%D8%A9898989.pdf>]. Accessed 15 January 2021.

[4] Médecins Sans Frontières. 17 January 2019. "Over a third of our patients in East Mosul show antibiotic resistance". [<https://www.msf.org/over-third-our-patients-east-mosul-show-antibiotic-resistance-iraq>]. Accessed 15 January 2021.

[5] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 15 January 2021.

[6] Parliament of the Republic of Iraq. [<http://en.parliament.iq/>]. Accessed 15 January 2021.

[7] Iraqi Local Governance Law Library. [<http://www.iraq-ig-law.org/>]. Accessed 15 January 2021.

### 1.1.2b

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

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

**Current Year Score: 0**

There is no publicly available evidence that there is national legislation or regulation in place requiring prescriptions for antibiotic use in animals in Iraq.

According to the Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, "legislation and regulations that ban the use of antimicrobial agents as growth promoters in animals do not exist in Iraq"[1]. The National Action Plan of Antimicrobial Resistance in Iraq (2018-2022) does not show evidence of a national legislation or regulation in place requiring prescriptions for antibiotic use in animals in Iraq [2].

While the Ministry of Agriculture has hosted conferences for the owners of livestock and veterinarians regarding proper antibiotic use in animals, there is no evidence of a requirement to obtain a prescription prior to use [3,4]. There is no indication of a requirement to obtain a prescription for antibiotic use in animals through the Ministry of Health website, Ministry of Agriculture website, the Parliament of the Republic of Iraq website, or the Iraqi Local Governance Law Library [5,6,7,8].

[1] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 15 January 2021.

[2] "National Action Plan of Antimicrobial Resistance in Iraq".

[[apps.who.int/datacol/answer\\_upload.asp?survey\\_id=666&view\\_id=722&question\\_id=13163&answer\\_id=19958&respondent\\_id=281600](https://apps.who.int/datacol/answer_upload.asp?survey_id=666&view_id=722&question_id=13163&answer_id=19958&respondent_id=281600)]. Accessed 15 January 2021.

[3] Iraqi Ministry of Agriculture. 15 November 2017. "Ministry of Agriculture: Veterinarians discuss resistance to antibiotics". [<http://www.zeraa.gov.iq/index.php?name=News&file=article&sid=6347>]. Accessed 16 January 2021.

[4] Iraqi Ministry of Agriculture. 16 November 2017. "Agriculture organizes a panel discussion on microbial resistance to antibiotics and the mechanism for implementing economic and agricultural reform".

[<http://www.zeraa.gov.iq/index.php?name=News&file=article&sid=6350>]. Accessed 16 January 2021.

[5] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 16 January 2021.

[6] Iraqi Ministry of Agriculture. Laws and Legislation. [<http://www.zeraa.gov.iq/index.php?name=Pages&op=page&pid=92>]. Accessed 16 January 2021.

[7] Parliament of the Republic of Iraq. [<http://en.parliament.iq/>]. Accessed 16 January 2021.

[8] Iraqi Local Governance Law Library. [<http://www.iraq-lg-law.org/>]. Accessed 16 January 2021.

## 1.2 ZONOTIC DISEASE

### 1.2.1 National planning for zoonotic diseases/pathogens

#### 1.2.1a

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

Yes = 1, No = 0

**Current Year Score: 0**

There is no publicly available information that shows that Iraq has national legislation, plans, or equivalent strategy documents on zoonotic disease.

According to the Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, "zoonotic diseases of greatest national public health concern currently present in Iraq are rabies, haemorrhagic fever and anthrax with an immediate notification. Since 2018, the Ministry of Health (MoH) introduced case-based surveillance for leishmaniasis (cutaneous and visceral), brucellosis, toxoplasmosis, and hydatid cysts". The report adds that the Ministry of Agriculture (MOA) "conducts routine passive disease surveillance and monitoring for key animal diseases including zoonotic

diseases (e.g. brucellosis, avian influenza) with limited capacity for wildlife disease surveillance. Active surveillance is in place only for avian influenza, primarily due to financial constraints". Further, the report states that "there is no overall multisectoral preparedness and response plan for zoonoses, thus no standard collaborative mechanisms for systematically responding to most zoonotic events". Therefore, there is no evidence of national legislation, plans, or equivalent strategy documents on zoonotic disease [1].

The Public Health Directorate, within the Ministry of Health, maintains a Zoonotic Disease Section in its Communicable Diseases Control Center [2]. However, there is no indication of any plan or strategy currently in place through this section. There is no evidence of a plan or strategy document on zoonotic diseases in Iraq through the Ministry of Health, Ministry of Agriculture, and Ministry of Higher Education and Scientific Research [3, 4, 5]. According to the website of the World Organisation for Animal Health (OIE) PVS evaluation reports, Iraq does not have an OIE PVS evaluation report that is publicly available and, therefore, does not provide information in this regard [6].

[1] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 16 January 2021.

[2] Iraqi Ministry of Health. Public Health Directorate. "Zoonotic Disease Section". [[http://www.phd.iq//catalog/a7\[2\].pdf](http://www.phd.iq//catalog/a7[2].pdf)]. Accessed 16 January 2021.

[3] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 16 January 2021.

[4] Iraqi Ministry of Agriculture. [<http://www.zeraa.gov.iq/>]. Accessed 16 January 2021.

[5] Iraqi Ministry of Higher Education and Scientific Research. [<http://moheer.gov.iq/ar/>]. Accessed 16 January 2021.

[6] World Organization for Animal Health (OIE). "OIE PVS Evaluation Reports". [<http://www.oie.int/solidarity/pvs-evaluations/pvs-evaluation-reports/>]. Accessed 16 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 no national legislation, plans or equivalent strategy document(s) which includes measures for risk identification and reduction for zoonotic disease spillover events from animals to humans.

According to the Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, "zoonotic diseases of greatest national public health concern currently present in Iraq are rabies, haemorrhagic fever and anthrax with an immediate notification. Since 2018, the Ministry of Health (MoH) introduced case-based surveillance for leishmaniasis (cutaneous and visceral), brucellosis, toxoplasmosis, and hydatid cysts". The report adds that the Ministry of Agriculture (MOA) "conducts routine passive disease surveillance and monitoring for key animal diseases including zoonotic diseases (e.g. brucellosis, avian influenza) with limited capacity for wildlife disease surveillance. Active surveillance is in place only for avian influenza, primarily due to financial constraints". Further, the report states that "there is no overall multisectoral preparedness and response plan for zoonoses, thus no standard collaborative mechanisms for systematically responding to most zoonotic events". Therefore, there is no evidence of 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 [1].

The Public Health Directorate, within the Ministry of Health, maintains a Zoonotic Disease Section in its Communicable

Diseases Control Center [2]. However, there is no indication of any plan or strategy currently in place through this section. There is no evidence of a plan or strategy document on zoonotic disease in Iraq through the Ministry of Health, Ministry of Agriculture, and Ministry of Higher Education and Scientific Research [3, 4, 5]. According to the website of the World Organisation for Animal Health (OIE) PVS evaluation reports, Iraq does not have an OIE PVS evaluation report that is publicly available and, therefore, does not provide information in this regard [6].

[1] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 16 January 2021.

[2] Iraqi Ministry of Health. Public Health Directorate. "Zoonotic Disease Section". [[http://www.phd.iq/catalog/a7\[2\].pdf](http://www.phd.iq/catalog/a7[2].pdf)]. Accessed 16 January 2021.

[3] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 16 January 2021.

[4] Iraqi Ministry of Agriculture. [<http://www.zeraa.gov.iq/>]. Accessed 16 January 2021.

[5] Iraqi Ministry of Higher Education and Scientific Research. [<http://moheer.gov.iq/ar/>]. Accessed 16 January 2021.

[6] World Organization for Animal Health (OIE). "OIE PVS Evaluation Reports". [<http://www.oie.int/solidarity/pvs-evaluations/pvs-evaluation-reports/>]. Accessed 16 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 no publicly available evidence of a national plan, guideline, or law that accounts for the surveillance and control of multiple zoonotic pathogens of public health concern in Iraq.

According to the Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, "zoonotic diseases of greatest national public health concern currently present in Iraq are rabies, haemorrhagic fever and anthrax with an immediate notification. Since 2018, the Ministry of Health (MoH) introduced case-based surveillance for leishmaniasis (cutaneous and visceral), brucellosis, toxoplasmosis, and hydatid cysts". The report adds that the Ministry of Agriculture (MOA) "conducts routine passive disease surveillance and monitoring for key animal diseases including zoonotic diseases (e.g. brucellosis, avian influenza) with limited capacity for wildlife disease surveillance. Active surveillance is in place only for avian influenza, primarily due to financial constraints". However, the JEE report does not provide evidence of a national plan, guideline, or law that accounts for the surveillance and control of multiple zoonotic pathogens of public health concern in Iraq [1].

The Public Health Directorate, within the Ministry of Health, maintains a Zoonotic Disease Section in its Communicable Diseases Control Center, but there is no indication that it operates according to a plan, guideline, or law [2]. The "Epidemiological Surveillance Report for Communicable Diseases for March 2018" is published by the Ministry of Health Public Health Directorate's Communicable Diseases Control Center and reports on cases of leishmaniasis, brucellosis, and scabies [3]. However, although the report cites a "National Plan for the Control of Zoonotic Diseases," there is no other publicly available evidence of this plan [3].

There is no other information regarding a national plan, guideline, or law for the surveillance and control of zoonotic pathogens through the Ministry of Health, Ministry of Agriculture, or the Ministry of Higher Education and Scientific Research [4, 5, 6].

According to the website of the World Organisation for Animal Health (OIE) PVS evaluation reports, Iraq does not have an OIE PVS evaluation report that is publicly available and, therefore, does not provide information on national legislation, plans, or guidelines that account for the surveillance and control of multiple zoonotic pathogens of public health concern [7].

[1] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 16 January 2021.

[2] Iraqi Ministry of Health. Public Health Directorate. "Zoonotic Disease Section". [[http://www.phd.iq/catalog/a7\[2\].pdf](http://www.phd.iq/catalog/a7[2].pdf)]. Accessed 16 January 2021.

[3] Iraqi Ministry of Health. Public Health Directorate. Communicable Diseases Control Center. March 2018. "Epidemiological Surveillance Report for Communicable Diseases for March 2018". [[http://www.phd.iq/catalog/faat\[1\].pdf](http://www.phd.iq/catalog/faat[1].pdf)]. Accessed 16 January 2021.

[4] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 16 January 2021.

[5] Iraqi Ministry of Agriculture. [<http://www.zeraa.gov.iq/>]. Accessed 16 January 2021.

[6] Iraqi Ministry of Higher Education and Scientific Research. [<http://mohehr.gov.iq/ar/>]. Accessed 16 January 2021.

[7] World Organization for Animal Health (OIE). "OIE PVS Evaluation Reports". [<http://www.oie.int/solidarity/pvs-evaluations/pvs-evaluation-reports/>]. Accessed 16 January 2021.

### 1.2.1d

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

Yes = 1, No = 0

**Current Year Score: 0**

There is no publicly available evidence of a department, agency, or similar unit dedicated to zoonotic disease that functions across ministries in Iraq.

According to the Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, "Iraq has established a National Zoonotic Diseases Committee since 2005 that gathers all relevant authorities and stakeholders to address zoonoses in a coordinated way, including information sharing and response to zoonotic diseases. However, a joint rapid investigation team is yet to be established. In 2009, when avian influenza was a national issue, a higher national committee for influenza was established. It included the same representatives as the National Zoonotic Diseases Committee in order to ensure the best outbreak response. This committee ceased operation in 2016". Therefore, there is no evidence of a department, agency, or similar unit dedicated to zoonotic disease that functions across ministries in Iraq [1].

The Public Health Directorate, within the Ministry of Health, maintains a Zoonotic Disease Section in its Communicable Diseases Control Center, but this department does not appear to function across ministries [2]. There is no additional evidence of an agency dedicated to zoonotic disease that functions across ministries through the Ministry of Health, Ministry of Agriculture, or Ministry of Higher Education and Scientific Research [3,4,5]. According to the website of the World Organisation for Animal Health (OIE) PVS evaluation reports, Iraq does not have an OIE PVS evaluation report that is publicly available and, therefore, does not provide information in this regard [6].

[1] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 16 January 2021.

[2] Iraqi Ministry of Health. Public Health Directorate. "Zoonotic Disease Section". [<http://www.phd.iq/catalog/a7>]

[2].pdf]. Accessed 16 January 2021.

[3] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 16 January 2021.

[4] Iraqi Ministry of Agriculture. [<http://www.zeraa.gov.iq/>]. Accessed 16 January 2021.

[5] Iraqi Ministry of Higher Education and Scientific Research. [<http://moheer.gov.iq/ar/>]. Accessed 16 January 2021.

[6] World Organization for Animal Health (OIE). "OIE PVS Evaluation Reports". [<http://www.oie.int/solidarity/pvs-evaluations/pvs-evaluation-reports/>]. Accessed 16 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 no publicly available evidence that Iraq has a national mechanism for owners of livestock to conduct and report on disease surveillance to a central government agency.

The Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, does not provide information that shows that Iraq has a national mechanism for owners of livestock to conduct and report on disease surveillance to a central government agency [1].

According to the Veterinary Directorate within the Ministry of Agriculture, one of its aims is to "[p]rovide veterinary services (preventive and curative) to protect livestock from the risk of endemic and emerging diseases"[2]. These services include the free vaccination of animals, including livestock, and supervision of their health, but there is no evidence that there is a specific mechanism that livestock owners can use to conduct and report on disease surveillance [2, 3, 4].

There is no additional information regarding a mechanism for disease surveillance and reporting through the Ministry of Health, Ministry of Agriculture, or Ministry of Higher Education and Scientific Research [5, 6, 7]. According to the website of the World Organisation for Animal Health (OIE) PVS evaluation reports, Iraq does not have an OIE PVS evaluation report that is publicly available and, therefore, does not provide information in this regard [8].

[1] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019-61-eng.pdf?sequence=1>]. Accessed 16 January 2021.

[2] Iraqi Ministry of Agriculture. Veterinary Directorate.

[<http://www.vetsc.gov.iq/index.php?name=Pages&op=page&pid=83>]. Accessed 16 January 2021.

[3] Iraqi Ministry of Agriculture. 13 November 2017. "Agriculture launches free vaccination campaign against livestock diseases". [<http://www.zeraa.gov.iq/index.php?name=News&file=article&sid=6340>]. Accessed 16 January 2021.

[4] Food and Agriculture Organisation (FAO). 23 October 2017. "Iraq: FAO launches emergency animal health campaign in former ISIL-held Mosul area". [<http://www.fao.org/news/story/en/item/1046438/icode/>]. Accessed 16 January 2021.

[5] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 16 January 2021.

[6] Iraqi Ministry of Agriculture. [<http://www.zeraa.gov.iq/>]. Accessed 16 January 2021.

[7] Iraqi Ministry of Higher Education and Scientific Research. [<http://moheer.gov.iq/ar/>]. Accessed 16 January 2021.

[8] World Organization for Animal Health (OIE). "OIE PVS Evaluation Reports". [<http://www.oie.int/solidarity/pvs-evaluations/pvs-evaluation-reports/>]. Accessed 16 January 2021.

evaluations/pvs-evaluation-reports/]. Accessed 16 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**

There is no publicly available evidence of laws or guidelines that safeguard the confidentiality of information generated through surveillance activities for animals in Iraq.

The Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, does not provide information that shows that there are laws or guidelines that safeguard the confidentiality of information generated through surveillance activities for animals in Iraq [1].

There is no indication of a law that safeguards the confidentiality of information gathered through surveillance activities through the Ministry of Health, Ministry of Agriculture, or Ministry of Higher Education and Scientific Research [2,3,4]. Additionally, there are no relevant laws available through the Parliament of the Republic of Iraq website or the Iraqi Local Governance Law Library [5,6]. According to the website of the World Organisation for Animal Health (OIE) PVS evaluation reports, Iraq does not have an OIE PVS evaluation report that is publicly available and, therefore, does not provide information in this regard [7].

[1] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 16 January 2021.

[2] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 16 January 2021.

[3] Iraqi Ministry of Agriculture. [<http://www.zeraa.gov.iq/>]. Accessed 16 January 2021.

[4] Iraqi Ministry of Higher Education and Scientific Research. [<http://mohehr.gov.iq/ar/>]. Accessed 16 January 2021.

[5] Parliament of the Republic of Iraq. [<http://en.parliament.iq/>]. Accessed 16 January 2021.

[6] Iraqi Local Governance Law Library. [<http://www.iraq-ig-law.org/>]. Accessed 16 January 2021.

[7] World Organization for Animal Health (OIE). "OIE PVS Evaluation Reports". [<http://www.oie.int/solidarity/pvs-evaluations/pvs-evaluation-reports/>]. Accessed 16 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**

There is no publicly available information that shows that Iraq conducts surveillance of zoonotic disease in wildlife (e.g., wild animals, insects, other disease vectors).

According to the Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, "the Ministry of Agriculture (MoA) has a good understanding of the epidemiological situation regarding animal diseases in the country and conducts routine passive disease surveillance and monitoring for key animal diseases including zoonotic diseases (e.g. brucellosis, avian influenza) with limited capacity for wildlife disease surveillance. Active surveillance is in place only for

avian influenza, primarily due to financial constraints". Therefore, there is no evidence that Iraq conducts surveillance of zoonotic disease in wildlife (e.g., wild animals, insects, other disease vectors) [1].

Although the Ministry of Health's Public Health Directorate maintains a Zoonotic Disease Section and Veterinary Directorate, neither of these offices indicates that it conducts zoonotic disease surveillance [2,3]. According to an article published by researchers from the U.S. Centers for Disease Control in 2013, minimal systemic surveillance is in place to monitor rabies infections in wildlife in Iraq [4]. There is no information regarding a wildlife surveillance program in place through the Ministry of Health, Ministry of Agriculture, or Ministry of Higher Education and Scientific Research [5,6,7]. According to the website of the World Organisation for Animal Health (OIE) PVS evaluation reports, Iraq does not have an OIE PVS evaluation report that is publicly available and, therefore, does not provide information in this regard [8].

[1] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 16 January 2021.

[2] Iraqi Ministry of Health. Public Health Directorate. "Zoonotic Disease Section". [[http://www.phd.iq/catalog/a7\[2\].pdf](http://www.phd.iq/catalog/a7[2].pdf)]. Accessed 16 January 2021.

[3] Iraqi Ministry of Agriculture. Veterinary Directorate. [<http://www.vetsc.gov.iq/index.php?name=Pages&op=page&pid=83>]. Accessed 16 January 2021.

[4] Horton, Daniel L., et al. 28 February 2013. PLOS Neglected Tropical Diseases. "Rabies in Iraq: Trends in Human Cases 2001-2010 and Characterisation of Animal Rabies Strains from Baghdad". [<https://journals.plos.org/plosntds/article?id=10.1371/journal.pntd.0002075>]. Accessed 16 January 2021.

[5] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 16 January 2021.

[6] Iraqi Ministry of Agriculture. [<http://www.zeraa.gov.iq/>]. Accessed 16 January 2021.

[7] Iraqi Ministry of Higher Education and Scientific Research. [<http://mohesr.gov.iq/ar/>]. Accessed 16 January 2021.

[8] World Organization for Animal Health (OIE). "OIE PVS Evaluation Reports". [<http://www.oie.int/solidarity/pvs-evaluations/pvs-evaluation-reports/>]. Accessed 16 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: 0

2019

OIE WAHIS database

## 1.2.4 Animal health workforce

### 1.2.4a

Number of veterinarians per 100,000 people

Input number

Current Year Score: 13.7

2018

OIE WAHIS database

### 1.2.4b

#### Number of veterinary para-professionals per 100,000 people

Input number

Current Year Score: 0.37

2018

OIE WAHIS database

## 1.2.5 Private sector and zoonotic

### 1.2.5a

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

Yes = 1, No = 0

Current Year Score: 0

There is no evidence of a national plan on zoonotic disease or other legislation, regulation, or plan that includes mechanisms for working with the private sector in controlling or responding to zoonoses in Iraq.

The Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, does not provide information that shows that there is a national plan on zoonotic disease or other legislation, regulation, or plan that includes mechanisms for working with the private sector in controlling or responding to zoonoses in Iraq [1].

Neither the Ministry of Health's Public Health Directorate Center for Disease Control, Zoonotic Disease Section, Epidemiological Monitoring Unit, nor the Central Public Health Laboratory indicate that there is a plan in place for working with the private sector [2, 3, 4, 5].

There is no information regarding a national plan on zoonotic diseases or other legislation that includes a mechanism for working with the private sector through the Ministry of Health, Ministry of Agriculture, or the Ministry of Higher Education and Scientific Research [6, 7, 8]. Additionally, there is no indication of legislation, regulation, or a plan for working with the private sector for controlling zoonotic disease through the Iraqi Local Governance Law Library [9].

According to the website of the World Organisation for Animal Health (OIE) PVS evaluation reports, Iraq does not have an OIE PVS evaluation report that is publicly available and, therefore, does not provide information in this regard [10].

[1] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 17 January 2021.

[2] Iraqi Ministry of Health. Public Health Directorate. "Center for Disease Control". [[http://www.phd.iq/CMS.php?CMS\\_P=260](http://www.phd.iq/CMS.php?CMS_P=260)]. Accessed 17 January 2021.

- [3] Iraqi Ministry of Health. Public Health Directorate. "Zoonotic Disease Section". [[http://www.phd.iq//catalog/a7\[2\].pdf](http://www.phd.iq//catalog/a7[2].pdf)]. Accessed 17 January 2021.
- [4] Iraqi Ministry of Health. Public Health Directorate. "Epidemiological Monitoring Unit." [[http://www.phd.iq//catalog/a1\[1\].pdf](http://www.phd.iq//catalog/a1[1].pdf)]. Accessed 17 January 2021.
- [5] Iraqi Ministry of Health. Public Health Directorate. "A brief description of the Central [Public] Health Laboratory". [[http://phd.iq/CMS.php?CMS\\_P=173](http://phd.iq/CMS.php?CMS_P=173)]. Accessed 17 January 2021.
- [6] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 17 January 2021.
- [7] Iraqi Ministry of Agriculture. [<http://www.zeraa.gov.iq/>]. Accessed 17 January 2021.
- [8] Iraqi Ministry of Higher Education and Scientific Research. [<http://moheer.gov.iq/ar/>]. Accessed 17 January 2021.
- [9] Iraqi Local Governance Law Library. [<http://www.iraq-lg-law.org/>]. Accessed 17 January 2021.
- [10] World Organization for Animal Health (OIE). "OIE PVS Evaluation Reports". [<http://www.oie.int/solidarity/pvs-evaluations/pvs-evaluation-reports/>]. 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 no publicly available evidence of a record in place, updated within the past 5 years, of the facilities in which especially dangerous pathogens and toxins are stored and processed in Iraq.

According to the Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, "the country has started the process of monitoring and keeping an updated record and inventory of pathogens within facilities that store or process dangerous pathogens and toxins". However, there is no information that shows that there is a record in place, updated within the past 5 years, of the facilities in which especially dangerous pathogens and toxins are stored and processed in Iraq [1].

According to a study published in February 2016, National Monitoring Authority for Non-Proliferation Act No. 48 (2012) was passed by the Iraqi Parliament in 2012 and prohibits the development, production, possession, transfer, or use of chemical, biological, radiological, and nuclear weapons and their means of delivery [2,3]. This Act also established a system through the Iraqi National Monitoring Authority (INMA) as part of the Ministry of Higher Education and Scientific Research (formerly the Ministry of Science and Technology) to control the import, export, and transfer of dual-use materials [2]. Although this authority also includes the National Biorisk Management Committee that monitors the use of dual-use biological pathogens through a National Pathogen List, there is no indication that this list has been updated within the past 5 years [2].

The Ministry of the Environment has a Permanent National Committee for Biosafety that is responsible for implementing the Cartagena Protocol and other biosafety legislation, there is no indication that it handles matters of biosecurity concern, such as the storage and processing of especially dangerous pathogens and toxins [4]. The Centre for Strategic Studies and Research, within the Ministry of Defence, conducts research on military science, including international humanitarian law and the use of certain weapons [5]. However, there is no evidence that this center maintains records of dangerous pathogens.

There is no other information regarding a record of facilities in which especially dangerous pathogens and toxins are stored and processed in Iraq through the Ministry of Health, Ministry of Agriculture, Ministry of Higher Education and Scientific Research, the Central Public Health Laboratory, or the Ministry of Defence [6, 7, 8, 9, 10]. Iraq has submitted Confidence Building Measures under the Biological Weapons Convention in 2018, 2019 and 2020; however, the reports are not accessible to the public, and therefore it is unknown if they contain additional information on this subject [11]. The VERTIC database does not offer additional information in this regard [12].

[1] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 17 January 2021.

[2] Al Jewari, Mahdi, et al. 26 February 2016. "Strengthening Biosecurity in Iraq: Development of a National Biorisk Management System". [<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4767897/>]. Accessed 17 January 2021.

[3] Parliament of the Republic of Iraq. 16 February 2012. "The National Authority Act on the Prevention of Nuclear, Chemical and Biological Weapons". [<http://arb.parliament.iq/archive/2012/02/16/%D9%82%D8%A7%D9%86%D9%88%D9%86-%D9%87%D9%8A%D8%A3%D8%A9-%D8%A7%D9%84%D8%B1%D9%82%D8%A7%D8%A8%D8%A9-%D8%A7%D9%84%D9%88%D8%B7%D9%86%D9%8A%D8%A9-%D8%B9%D9%84%D9%89-%D9%85%D9%86%D8%B9-%D8%A7%D9%84%D8%A7/>]. Accessed 17 January 2021.

[4] Iraqi Ministry of the Environment.

"Biosafety". [<http://www.moen.gov.iq/%D8%A7%D9%84%D8%B3%D9%84%D8%A7%D9%85%D8%A9-%D8%A7%D9%84%D8%A7%D8%AD%D9%8A%D8%A7%D8%A6%D9%8A%D8%A9>]. Accessed 17 January 2021.

[5] Iraqi Ministry of Defence. "Centre for Strategic Studies and Research".

[[https://www.mod.mil.iq/index.php?name=News&new\\_topic=14](https://www.mod.mil.iq/index.php?name=News&new_topic=14)]. Accessed 17 January 2021.

[6] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 17 January 2021.

[7] Iraqi Ministry of Agriculture. [<http://www.zeraa.gov.iq/>]. Accessed 17 January 2021.

[8] Iraqi Ministry of Higher Education and Scientific Research. [<http://moheer.gov.iq/ar/>]. Accessed 17 January 2021.

[9] Iraqi Ministry of Health. Public Health Directorate. "A brief description of the Central [Public] Health Laboratory". [[http://phd.iq/CMS.php?CMS\\_P=173](http://phd.iq/CMS.php?CMS_P=173)]. Accessed 17 January 2021.

[10] Iraqi Ministry of Defence. [<https://www.mod.mil.iq/>]. Accessed 17 January 2021.

[11] United Nations Office at Geneva. Confidence Building Measures. "Iraq". [<https://bwc-ecbm.unog.ch/state/Iraq>]. Accessed 17 January 2021.

[12] VERTIC Database. "Iraq Profile". [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/i/>]. Accessed 17 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 no publicly available evidence that Iraq has legislation and regulations in place related to biosecurity which addresses issues such as physical containment, operation practices, failure reporting systems and/or cybersecurity of facilities in which especially dangerous pathogens and toxins are stored and processed.

According to the Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, "a

comprehensive national biosafety and biosecurity regulatory framework is currently being finalized before submission for endorsement. All laboratories in the country must be licensed by the MoH in line with the Public Health Law 89 (1981), and subsequent revisions, in order to operate"[1].

According to a study published in February 2016, National Monitoring Authority for Non-Proliferation Act No. 48 (2012) was passed by the Iraqi Parliament in 2012 and prohibits the development, production, possession, transfer, or use of chemical, biological, radiological, and nuclear weapons and their means of delivery [2,3]. This Act established a system through the Iraqi National Monitoring Authority (INMA) as part of the Ministry of Higher Education and Scientific Research (formerly the Ministry of Science and Technology) to control the import, export, and transfer of dual-use materials [2]. This authority also includes the National Biorisk Management Committee that monitors the use of dual-use biological pathogens through a National Pathogen List and oversees upgrades to the physical security of facilities that store them [2]. However, there is no indication of specific regulations that govern the operation of these facilities.

There is no other evidence of legislation and regulations in place related to biosecurity through the Ministry of Health, Ministry of Agriculture, Ministry of Higher Education and Scientific Research, the Central Public Health Laboratory, the Ministry of Defence, the Parliament of the Republic of Iraq, or the Iraqi Local Governance Law Library. [4, 5, 6, 7, 8, 9, 10] Iraq has submitted Confidence Building Measures under the Biological Weapons Convention in 2018, 2019 and 2020; however, the reports are not accessible to the public, and therefore it is unknown if they contain additional information on this subject [11]. The VERTIC database does not offer additional information in this regard [12].

[1] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 17 January 2021.

[2] Al Jewari, Mahdi, et al. 26 February 2016. "Strengthening Biosecurity in Iraq: Development of a National Biorisk Management System". [<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4767897/>]. Accessed 17 January 2021.

[3] Parliament of the Republic of Iraq. 16 February 2012. "The National Authority Act on the Prevention of Nuclear, Chemical and Biological Weapons". [<http://arb.parliament.iq/archive/2012/02/16/%D9%82%D8%A7%D9%86%D9%88%D9%86-%D9%87%D9%8A%D8%A3%D8%A9-%D8%A7%D9%84%D8%B1%D9%82%D8%A7%D8%A8%D8%A9-%D8%A7%D9%84%D9%88%D8%B7%D9%86%D9%8A%D8%A9-%D8%B9%D9%84%D9%89-%D9%85%D9%86%D8%B9-%D8%A7%D9%84%D8%A7/>]. Accessed 17 January 2021.

[4] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 17 January 2021.

[5] Iraqi Ministry of Agriculture. [<http://www.zeraa.gov.iq/>]. Accessed 17 January 2021.

[6] Iraqi Ministry of Higher Education and Scientific Research. [<http://moheer.gov.iq/ar/>]. Accessed 17 January 2021.

[7] Iraqi Ministry of Health. Public Health Directorate. "A brief description of the Central [Public] Health Laboratory". [[http://phd.iq/CMS.php?CMS\\_P=173](http://phd.iq/CMS.php?CMS_P=173)]. Accessed 17 January 2021.

[8] Iraqi Ministry of Defence. [<https://www.mod.mil.iq/>]. Accessed 17 January 2021.

[9] Parliament of the Republic of Iraq. [<http://en.parliament.iq/>]. Accessed 17 January 2021.

[10] Iraqi Local Governance Law Library. [<http://www.iraq-ig-law.org/>]. Accessed 17 January 2021.

[11] United Nations Office at Geneva. Confidence Building Measures. "Iraq". [<https://bwc-ecbm.unog.ch/state/Iraq>]. Accessed 17 January 2021.

[12] VERTIC Database. "Iraq Profile". [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/i/>]. Accessed 17 January 2021.

### 1.3.1c

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

Yes = 1, No = 0

**Current Year Score: 0**

There is no publicly available evidence that Iraq has an established agency responsible for the enforcement of biosecurity legislation and regulations.

The Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, does not offer information that shows that there is an agency responsible for the enforcement of biosecurity legislation and regulations. [1]

According to a study published in February 2016, National Monitoring Authority for Non-Proliferation Act No. 48 (2012) was passed by the Iraqi Parliament in 2012 and prohibits the development, production, possession, transfer, or use of chemical, biological, radiological, and nuclear weapons and their means of delivery. [2,3] This Act established the Iraqi National Monitoring Authority (INMA) as part of the Ministry of Higher Education and Scientific Research (formerly the Ministry of Science and Technology) that is dedicated to controlling the import, export, and transfer of dual-use materials. [2] This authority also includes the National Biorisk Management Committee that implements biosecurity legislation and regulation, but there is no indication that these regulations include physical containment, operation practices, failure reporting systems, and/or cybersecurity of facilities in which especially dangerous pathogens and toxins are stored and processed. [2]

The Ministry of the Environment has a Permanent National Committee for Biosafety that is responsible for implementing the Cartagena Protocol and other biosafety legislation, but there is no indication that it handles matters of biosecurity concern. [4] According to reporting by the Eastern Mediterranean Public Health Network (EMPHNET), Iraq also has a Biosecurity and Biosafety Steering Committee, but there is no other publicly available evidence of this committee. [5]

There is no other evidence of an established agency responsible for the enforcement of biosecurity legislation and regulations through the Ministry of Health, Ministry of Agriculture, Ministry of Higher Education and Scientific Research, the Central Public Health Laboratory, the Ministry of Defence, the Parliament of the Republic of Iraq, or the Iraqi Local Governance Law Library. [6, 7, 8, 9, 10, 11, 12] Iraq has submitted Confidence Building Measures under the Biological Weapons Convention in 2018, 2019 and 2020; however, the reports are not accessible to the public, and therefore it is unknown if they contain additional information on this subject. [13] The VERTIC database does not offer additional information in this regard. [14]

[1] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 17 January 2021.

[2] Al Jewari, Mahdi, et al. 26 February 2016. "Strengthening Biosecurity in Iraq: Development of a National Biorisk Management System". [<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4767897/>]. Accessed 17 January 2021.

[3] Parliament of the Republic of Iraq. 16 February 2012. "The National Authority Act on the Prevention of Nuclear, Chemical and Biological Weapons". [<http://arb.parliament.iq/archive/2012/02/16/%D9%82%D8%A7%D9%86%D9%88%D9%86-%D9%87%D9%8A%D8%A3%D8%A9-%D8%A7%D9%84%D8%B1%D9%82%D8%A7%D8%A8%D8%A9-%D8%A7%D9%84%D9%88%D8%B7%D9%86%D9%8A%D8%A9-%D8%B9%D9%84%D9%89-%D9%85%D9%86%D8%B9-%D8%A7%D9%84%D8%A7/>]. Accessed 17 January 2021.

[4] Iraqi Ministry of the Environment.

"Biosafety". [<http://www.moen.gov.iq/%D8%A7%D9%84%D8%B3%D9%84%D8%A7%D9%85%D8%A9-%D8%A7%D9%84%D8%A7%D8%AD%D9%8A%D8%A7%D8%A6%D9%8A%D8%A9>]. Accessed 17 January 2021.

[5] The Eastern Mediterranean Public Health Network (EMPHNET). 23 July 2018. "Iraq Biosecurity and Biosafety Steering Committee Meeting". [<http://emphnet.net/?event=iraq-biosecurity-and-biosafety-steering-committee-meeting>]. Accessed 17 January 2021.

[6] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 17 January 2021.

- [7] Iraqi Ministry of Agriculture. [<http://www.zeraa.gov.iq/>]. Accessed 17 January 2021.
- [8] Iraqi Ministry of Higher Education and Scientific Research. [<http://moheer.gov.iq/ar/>]. Accessed 17 January 2021.
- [9] Iraqi Ministry of Health. Public Health Directorate. "A brief description of the Central [Public] Health Laboratory". [[http://phd.iq/CMS.php?CMS\\_P=173](http://phd.iq/CMS.php?CMS_P=173)]. Accessed 17 January 2021.
- [10] Iraqi Ministry of Defence. [<https://www.mod.mil.iq/>]. Accessed 17 January 2021.
- [11] Parliament of the Republic of Iraq. [<http://en.parliament.iq/>]. Accessed 17 February 2019.
- [12] Iraqi Local Governance Law Library. [<http://www.iraq-lg-law.org/>]. Accessed 16 February 2019.
- [13] United Nations Office at Geneva. Confidence Building Measures. "Iraq". [<https://bwc-ecbm.unog.ch/state/Iraq>]. Accessed 17 January 2021.
- [14] VERTIC Database. "Iraq Profile". [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/i/>]. Accessed 17 January 2021.

### 1.3.1d

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

Yes = 1 , No = 0

**Current Year Score: 0**

There is no publicly available evidence that Iraq has taken action to consolidate its inventories of especially dangerous pathogens and toxins into a minimum number of facilities.

According to the Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, "a comprehensive national biosafety and biosecurity regulatory framework is currently being finalized before submission for endorsement". However, there is no evidence that Iraq has taken action to consolidate its inventories of especially dangerous pathogens and toxins into a minimum number of facilities. [1]

According to a study published in February 2016, National Monitoring Authority for Non-Proliferation Act No. 48 (2012) was passed by the Iraqi Parliament in 2012 and prohibits the development, production, possession, transfer, or use of chemical, biological, radiological, and nuclear weapons and their means of delivery. [2,3] This Act established the Iraqi National Monitoring Authority (INMA) as part of the Ministry of Higher Education and Scientific Research (formerly the Ministry of Science and Technology) that is dedicated to controlling the import, export, and transfer of dual-use materials. [2] This authority also includes the National Biorisk Management Committee that implements biosecurity legislation and regulation. [2] However, there is no evidence that any of these governmental bodies have taken steps to consolidate its inventories of especially dangerous pathogens and toxins into a minimum number of facilities.

There is no other evidence of an established agency responsible for the enforcement of biosecurity legislation and regulations through the Ministry of Health, Ministry of Agriculture, Ministry of Higher Education and Scientific Research, the Central Public Health Laboratory, the Ministry of Defence, the Parliament of the Republic of Iraq, or the Iraqi Local Governance Law Library. [4, 5, 6, 7, 8, 9, 10] Iraq has submitted Confidence Building Measures under the Biological Weapons Convention in 2018, 2019 and 2020; however, the reports are not accessible to the public, and therefore it is unknown if they contain additional information on this subject. [11] The VERTIC database does not offer additional information in this regard. [12]

[1] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 17 January 2021.

- [2] Al Jewari, Mahdi, et al. 26 February 2016. "Strengthening Biosecurity in Iraq: Development of a National Biorisk Management System". [<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4767897/>]. Accessed 17 January 2021.
- [3] Parliament of the Republic of Iraq. 16 February 2012. "The National Authority Act on the Prevention of Nuclear, Chemical and Biological Weapons". [<http://arb.parliament.iq/archive/2012/02/16/%D9%82%D8%A7%D9%86%D9%88%D9%86-%D9%87%D9%8A%D8%A3%D8%A9-%D8%A7%D9%84%D8%B1%D9%82%D8%A7%D8%A8%D8%A9-%D8%A7%D9%84%D9%88%D8%B7%D9%86%D9%8A%D8%A9-%D8%B9%D9%84%D9%89-%D9%85%D9%86%D8%B9-%D8%A7%D9%84%D8%A7/>]. Accessed 17 January 2021.
- [4] Iraqi Ministry of the Environment. "Biosafety". [<http://www.moen.gov.iq/%D8%A7%D9%84%D8%B3%D9%84%D8%A7%D9%85%D8%A9-%D8%A7%D9%84%D8%A7%D8%AD%D9%8A%D8%A7%D8%A6%D9%8A%D8%A9>]. Accessed 17 January 2021.
- [5] Iraqi Ministry of Defence. "Centre for Strategic Studies and Research". [[https://www.mod.mil.iq/index.php?name=News&new\\_topic=14](https://www.mod.mil.iq/index.php?name=News&new_topic=14)]. Accessed 17 January 2021.
- [6] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 17 January 2021.
- [7] Iraqi Ministry of Agriculture. [<http://www.zeraa.gov.iq/>]. Accessed 17 January 2021.
- [8] Iraqi Ministry of Higher Education and Scientific Research. [<http://moheer.gov.iq/ar/>]. Accessed 17 January 2021.
- [9] Iraqi Ministry of Health. Public Health Directorate. "A brief description of the Central [Public] Health Laboratory". [[http://phd.iq/CMS.php?CMS\\_P=173](http://phd.iq/CMS.php?CMS_P=173)]. Accessed 17 January 2021.
- [10] Iraqi Ministry of Defence. [<https://www.mod.mil.iq/>]. Accessed 17 January 2021.
- [11] United Nations Office at Geneva. Confidence Building Measures. "Iraq". [<https://bwc-ecbm.unog.ch/state/Iraq>]. Accessed 17 January 2021.
- [12] VERTIC Database. "Iraq Profile". [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/i/>]. Accessed 17 January 2021.

### 1.3.1e

**Is there public evidence of in-country capacity to conduct Polymerase Chain Reaction (PCR)–based diagnostic testing for anthrax and/or Ebola, which would preclude culturing a live pathogen?**

Yes = 1 , No = 0

**Current Year Score: 0**

There is no publicly available evidence that Iraq has the capacity to conduct polymerase chain reaction (PCR)-based diagnostic testing for anthrax and/or Ebola.

The Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, does not provide 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. [1]

According to the Stockholm International Peace Research Institute, a United Nations Special Commission investigating the Iraqi investigation of Kuwait found evidence that research laboratories had successfully weaponized anthrax in 1995. [2] However, there is no evidence that Iraq currently has the capacity to conduct PCR-based diagnostic testing for anthrax.

The Ministry of Health holds workshops on PCR testing for genetic material, but there is no indication that this includes tests for anthrax and/or Ebola. [3] There is no indication that Iraq has the capacity to conduct PCR-based diagnostic testing for anthrax and/or Ebola through the Ministry of Health, Ministry of Agriculture, Ministry of Higher Education and Scientific Research, the Central Public Health Laboratory, or the Ministry of Defence. [4, 5, 6, 7, 8]

- [1] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 17 January 2021.
- [2] Stockholm International Peace Research Institute. October 1998. "Iraq: The UNSCOM Experience". [<https://www.sipri.org/sites/default/files/files/FS/SIPRIFS9810.pdf>]. Accessed 17 January 2021.
- [3] Iraqi Ministry of Health. 20 March 2018. "The Department of Forensic Medicine conducts an extensive course on DNA". [<https://moh.gov.iq/index.php?name=News&file=article&sid=9570>]. Accessed 17 January 2021.
- [4] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 17 January 2021.
- [5] Iraqi Ministry of Agriculture. [<http://www.zeraa.gov.iq/>]. Accessed 17 January 2021.
- [6] Iraqi Ministry of Higher Education and Scientific Research. [<http://moheer.gov.iq/ar/>]. Accessed 17 January 2021.
- [7] Iraqi Ministry of Health. Public Health Directorate. "A brief description of the Central [Public] Health Laboratory". [[http://phd.iq/CMS.php?CMS\\_P=173](http://phd.iq/CMS.php?CMS_P=173)]. Accessed 17 January 2021.
- [8] Iraqi Ministry of Defence. [<https://www.mod.mil.iq/>]. Accessed 17 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 no publicly available information that shows that Iraq 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.

According to the Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, "a comprehensive national biosafety and biosecurity regulatory framework is currently being finalized before submission for endorsement". Further, it states that "aside from biosafety in the laboratory, more attention is needed to training fieldworkers across sectors to safely collect, handle, pack and transport specimens" [1]

According to a 2016 report from the University Research Co., Iraq participated in the Cooperative Biological Engagement Program (CBEP) with representatives in the U.S. government between 2014 and 2016. [1] The CBEP focused on biological agents and sought to enhance clinical, laboratory, and epidemiological safety and security in Iraq by providing education and training on the proper handling, management, transportation, and disposal of especially dangerous pathogens. [2] However, there is no indication that training has continued in a standardized, required capacity since the CBEP.

The Ministry of Health's Public Health Directorate Centre for Disease Control conducts training for public health staff to help prevent the spread of infectious diseases, but there is no evidence that it conducts standardized, required training for personnel. [3] The Iraqi National Monitoring Authority (INMA), which was established by the National Monitoring Authority for Non-Proliferation Act No. 48 (2012) as part of the Ministry of Higher Education and Scientific Research (formerly the Ministry of Science and Technology), is dedicated to controlling the import, export, and transfer of dual-use materials. [4,5] This authority also includes the National Biorisk Management Committee. [4] However, it is not clear whether either of these governmental bodies mandates biosecurity training for personnel working in facilities housing or working with especially dangerous pathogens, toxins, or biological materials with pandemic potential.

There is no other evidence of standardized, required training for personnel working in facilities housing or working with especially dangerous pathogens through the Ministry of Health, Ministry of Agriculture, Ministry of Higher Education and Scientific Research, the Central Public Health Laboratory, the Ministry of Defence, the Parliament of the Republic of Iraq, or the Iraqi Local Governance Law Library. [6, 7, 8, 9, 10, 11, 12] Iraq has submitted Confidence Building Measures under the Biological Weapons Convention in 2018, 2019 and 2020; however, the reports are not accessible to the public, and therefore it is unknown if they contain additional information on this subject. [13] The VERTIC database does not offer additional information in this regard. [14]

[1] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 17 January 2021.

[2] University Research Co. 2016. "Fact Sheet: The Cooperative Biological Engagement Program (CBEP) - Iraq". [<https://www.urc-chs.com/sites/default/files/Fact%20Sheet%20-%20CBEP%20Iraq%20Final%202016.pdf>]. Accessed 19 January 2021.

[3] Iraqi Ministry of Health. Public Health Directorate. "Center for Disease Control". [[http://www.phd.iq/CMS.php?CMS\\_P=260](http://www.phd.iq/CMS.php?CMS_P=260)]. Accessed 19 January 2021.

[4] Al Jewari, Mahdi, et al. 26 February 2016. "Strengthening Biosecurity in Iraq: Development of a National Biorisk Management System". [<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4767897/>]. Accessed 19 January 2021.

[5] Parliament of the Republic of Iraq. 16 February 2012. "The National Authority Act on the Prevention of Nuclear, Chemical and Biological Weapons". [<http://arb.parliament.iq/archive/2012/02/16/%D9%82%D8%A7%D9%86%D9%88%D9%86-%D9%87%D9%8A%D8%A3%D8%A9-%D8%A7%D9%84%D8%B1%D9%82%D8%A7%D8%A8%D8%A9-%D8%A7%D9%84%D9%88%D8%B7%D9%86%D9%8A%D8%A9-%D8%B9%D9%84%D9%89-%D9%85%D9%86%D8%B9-%D8%A7%D9%84%D8%A7/>]. Accessed 19 January 2021.

[6] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 19 January 2021.

[7] Iraqi Ministry of Agriculture. [<http://www.zeraa.gov.iq/>]. Accessed 19 January 2021.

[8] Iraqi Ministry of Higher Education and Scientific Research. [<http://moheer.gov.iq/ar/>]. Accessed 19 January 2021.

[9] Iraqi Ministry of Health. Public Health Directorate. "A brief description of the Central [Public] Health Laboratory". [[http://phd.iq/CMS.php?CMS\\_P=173](http://phd.iq/CMS.php?CMS_P=173)]. Accessed 19 January 2021.

[10] Iraqi Ministry of Defence. [<https://www.mod.mil.iq/>]. Accessed 19 January 2021.

[11] Parliament of the Republic of Iraq. [<http://en.parliament.iq/>]. Accessed 19 January 2021.

[12] Iraqi Local Governance Law Library. [<http://www.iraq-lg-law.org/>]. Accessed 19 January 2021.

[13] United Nations Office at Geneva. Confidence Building Measures. "Iraq". [<https://bwc-ecbm.unog.ch/state/Iraq>]. Accessed 19 January 2021.

[14] VERTIC Database. "Iraq Profile". [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/i/>]. Accessed 17 January 2021.

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

#### 1.3.3a

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

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

**Current Year Score: 0**

There is no publicly available evidence that Iraq has regulations or licensing conditions that specify that security and other personnel with access to especially dangerous pathogens, toxins, or biological materials with pandemic potential are subject to drug testing, background checks, and psychological or mental fitness checks.

The Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, does not provide evidence of such regulations or licensing conditions. [1] According to a 2016 report from the University Research Co., Iraq participated in the Cooperative Biological Engagement Program (CBEP) with representatives in the U.S. government between 2014 and 2016. [2] The CBEP focused on biological agents and sought to enhance clinical, laboratory, and epidemiological safety and security in Iraq by providing education and training on the proper handling, management, transportation, and disposal of especially dangerous pathogens. [2] However, there is no indication that this program mandated specific screening procedures for personnel working with dangerous pathogens.

The Ministry of Health's Public Health Directorate Centre for Disease Control conducts training for public health staff to help prevent the spread of infectious diseases, but there is no evidence that it mandates drug testing, background checks, and psychological or mental fitness checks for personnel. [3] The Iraqi National Monitoring Authority (INMA), which was established by the National Monitoring Authority for Non-Proliferation Act No. 48 (2012) as part of the Ministry of Higher Education and Scientific Research (formerly the Ministry of Science and Technology), is dedicated to controlling the import, export, and transfer of dual-use materials. [3, 4] This authority also includes the National Biorisk Management Committee that implements biosecurity legislation and regulation. [3] However, it is not clear whether either of these governmental bodies requires specific screening procedures for personnel working with especially dangerous pathogens.

There is no other evidence of drug testing, background checks, and psychological or mental fitness checks through the Ministry of Health, Ministry of Agriculture, Ministry of Higher Education and Scientific Research, the Central Public Health Laboratory, the Ministry of Defence, the Parliament of the Republic of Iraq, or the Iraqi Local Governance Law Library. [5, 6, 7, 8, 9, 10, 11] Iraq has submitted Confidence Building Measures under the Biological Weapons Convention in 2018, 2019 and 2020; however, the reports are not accessible to the public, and therefore it is unknown if they contain additional information on this subject. [12] The VERTIC database does not offer additional information in this regard. [13]

[1] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 19 January 2021.

[2] University Research Co. 2016. "Fact Sheet: The Cooperative Biological Engagement Program (CBEP) - Iraq". [<https://www.urc-chs.com/sites/default/files/Fact%20Sheet%20-%20CBEP%20Iraq%20Final%202016.pdf>]. Accessed 19 January 2021.

[3] Al Jewari, Mahdi, et al. 26 February 2016. "Strengthening Biosecurity in Iraq: Development of a National Biorisk Management System". [<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4767897/>]. Accessed 19 January 2021.

[4] Parliament of the Republic of Iraq. 16 February 2012. "The National Authority Act on the Prevention of Nuclear, Chemical and Biological Weapons". [<http://arb.parliament.iq/archive/2012/02/16/%D9%82%D8%A7%D9%86%D9%88%D9%86-%D9%87%D9%8A%D8%A3%D8%A9-%D8%A7%D9%84%D8%B1%D9%82%D8%A7%D8%A8%D8%A9-%D8%A7%D9%84%D9%88%D8%B7%D9%86%D9%8A%D8%A9-%D8%B9%D9%84%D9%89-%D9%85%D9%86%D8%B9-%D8%A7%D9%84%D8%A7/>]. Accessed 19 January 2021.

[5] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 19 January 2021.

[6] Iraqi Ministry of Agriculture. [<http://www.zeraa.gov.iq/>]. Accessed 19 January 2021.

[7] Iraqi Ministry of Higher Education and Scientific Research. [<http://moheer.gov.iq/ar/>]. Accessed 19 January 2021.

[8] Iraqi Ministry of Health. Public Health Directorate. "A brief description of the Central [Public] Health Laboratory".

[[http://phd.iq/CMS.php?CMS\\_P=173](http://phd.iq/CMS.php?CMS_P=173)]. Accessed 19 January 2021.

[9] Iraqi Ministry of Defence. [<https://www.mod.mil.iq/>]. Accessed 19 January 2021.

[10] Parliament of the Republic of Iraq. [<http://en.parliament.iq/>]. Accessed 19 January 2021.

[11] Iraqi Local Governance Law Library. [<http://www.iraq-lg-law.org/>]. Accessed 19 January 2021.

[12] United Nations Office at Geneva. Confidence Building Measures. "Iraq". [<https://bwc-ecbm.unog.ch/state/Iraq>]. Accessed 19 January 2021.

[13] VERTIC Database. "Iraq Profile". [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/i/>]. Accessed 17 January 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 no publicly available evidence that Iraq has national regulations on the safe and secure transport of infectious substances (Categories A and B).

The Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, does not provide evidence of such regulations. [1] According to a 2016 report from the University Research Co., Iraq participated in the Cooperative Biological Engagement Program (CBEP) with representatives in the U.S. government between 2014 and 2016. [2] The CBEP focused on biological agents and sought to enhance clinical, laboratory, and epidemiological safety and security in Iraq by providing education and training on the proper handling, management, transportation, and disposal of especially dangerous pathogens. [2] Although the CBEP drafted standard operating procedures for the transport of disease samples, there is no publicly available evidence that there are any national regulations that regulate the transport of Category A and Category B substances.

The Ministry of Health's Public Health Directorate Centre for Disease Control conducts training for public health staff to help prevent the spread of infectious diseases, but there is no evidence that it regulates the transportation of infectious substances. [3] The Iraqi National Monitoring Authority (INMA), which was established by the National Monitoring Authority for Non-Proliferation Act No. 48 (2012) as part of the Ministry of Higher Education and Scientific Research (formerly the Ministry of Science and Technology), is dedicated to controlling the import, export, and transfer of dual-use materials. [3, 4] This authority also includes the National Biorisk Management Committee. [3] However, it is not clear whether either of these governmental bodies has regulations regarding the safe and secure transport of infectious substances in Category A and B.

There is no other evidence of legislation on the safe and secure transport of infectious substances through the Ministry of Health, Ministry of Agriculture, Ministry of Higher Education and Scientific Research, the Central Public Health Laboratory, the Ministry of Defence, the Parliament of the Republic of Iraq, or the Iraqi Local Governance Law Library. [5, 6, 7, 8, 9, 10, 11] Iraq has submitted Confidence Building Measures under the Biological Weapons Convention in 2018, 2019 and 2020; however, the reports are not accessible to the public, and therefore it is unknown if they contain additional information on this subject. [12] The VERTIC database does not offer additional information in this regard. [13]

[1] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019-61->

eng.pdf?sequence=1]. Accessed 19 January 2021.

[2] University Research Co. 2016. "Fact Sheet: The Cooperative Biological Engagement Program (CBEP) - Iraq". [https://www.urc-chs.com/sites/default/files/Fact%20Sheet%20-%20CBEP%20Iraq%20Final%202016.pdf]. Accessed 19 January 2021.

[3] Al Jewari, Mahdi, et al. 26 February 2016. "Strengthening Biosecurity in Iraq: Development of a National Biorisk Management System". [https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4767897/]. Accessed 19 January 2021.

[4] Parliament of the Republic of Iraq. 16 February 2012. "The National Authority Act on the Prevention of Nuclear, Chemical and Biological Weapons". [http://arb.parliament.iq/archive/2012/02/16/%D9%82%D8%A7%D9%86%D9%88%D9%86-%D9%87%D9%8A%D8%A3%D8%A9-%D8%A7%D9%84%D8%B1%D9%82%D8%A7%D8%A8%D8%A9-%D8%A7%D9%84%D9%88%D8%B7%D9%86%D9%8A%D8%A9-%D8%B9%D9%84%D9%89-%D9%85%D9%86%D8%B9-%D8%A7%D9%84%D8%A7/]. Accessed 19 January 2021.

[5] Iraqi Ministry of Health. [https://moh.gov.iq/]. Accessed 19 January 2021.

[6] Iraqi Ministry of Agriculture. [http://www.zeraa.gov.iq/]. Accessed 19 January 2021.

[7] Iraqi Ministry of Higher Education and Scientific Research. [http://moheer.gov.iq/ar/]. Accessed 19 January 2021.

[8] Iraqi Ministry of Health. Public Health Directorate. "A brief description of the Central [Public] Health Laboratory". [http://phd.iq/CMS.php?CMS\_P=173]. Accessed 19 January 2021.

[9] Iraqi Ministry of Defence. [https://www.mod.mil.iq/]. Accessed 19 January 2021.

[10] Parliament of the Republic of Iraq. [http://en.parliament.iq/]. Accessed 19 January 2021.

[11] Iraqi Local Governance Law Library. [http://www.iraq-lg-law.org/]. Accessed 19 January 2021.

[12] United Nations Office at Geneva. Confidence Building Measures. "Iraq". [https://bwc-ecbm.unog.ch/state/Iraq]. Accessed 19 January 2021.

[13] VERTIC Database. "Iraq Profile". [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/i/]. Accessed 19 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**

There is no publicly available evidence that there is national legislation, regulations, or other guidance in place to oversee the cross-border transfer and end-user screening of especially dangerous pathogens, toxins, and pathogens with pandemic potential in Iraq.

The Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, does not provide evidence of such national legislation, regulations, or other guidance. [1]

There is no evidence of any national legislation to oversee the cross-border transfer and end-user screening of especially dangerous pathogens, toxins, and pathogens with pandemic potential through the Ministry of Health, Ministry of Agriculture, Ministry of Higher Education and Scientific Research, Ministry of Defence, Ministry of Trade, the Parliament of the Republic of Iraq, or the Iraqi Local Governance Law Library. [2, 3, 4, 5, 6, 7, 8] Iraq has submitted Confidence Building Measures under the Biological Weapons Convention in 2018, 2019 and 2020; however, the reports are not accessible to the public, and therefore it is unknown if they contain additional information on this subject. [9] The VERTIC database does not offer

additional information in this regard. [10]

- [1] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 19 January 2021.
- [2] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 19 January 2021.
- [3] Iraqi Ministry of Agriculture. [<http://www.zeraa.gov.iq/>]. Accessed 19 January 2021.
- [4] Iraqi Ministry of Higher Education and Scientific Research. [<http://moheer.gov.iq/ar/>]. Accessed 19 January 2021.
- [5] Iraqi Ministry of Defence. [<https://www.mod.mil.iq/>]. Accessed 19 January 2021.
- [6] Iraqi Ministry of Trade. [<http://www.mot.gov.iq/>]. Accessed 19 January 2021.
- [7] Parliament of the Republic of Iraq. [<http://en.parliament.iq/>]. Accessed 19 January 2021.
- [8] Iraqi Local Governance Law Library. [<http://www.iraq-ig-law.org/>]. Accessed 19 January 2021.
- [9] United Nations Office at Geneva. Confidence Building Measures. "Iraq". [<https://bwc-ecbm.unog.ch/state/Iraq>]. Accessed 19 January 2021.
- [10] VERTIC Database. "Iraq Profile". [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/i/>]. Accessed 19 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: 0**

There is insufficient evidence that Iraq has national biosafety legislation and regulations in place.

The Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019 mentions that "some, but not all, elements of a comprehensive biosafety and biosecurity system are in place. The country has started with keeping an inventory of dangerous pathogens. A comprehensive national biosafety and biosecurity regulatory framework is currently being finalized before submission for endorsement. All laboratories in the country must be licensed by the Ministry of Health (MoH) in line with the Public Health Law 89 (1981), and subsequent revisions, in order to operate". Therefore, it does not provide evidence of national biosafety legislation and/or regulations. [1]

The National Monitoring Authority for Non-Proliferation Act No. 48 (2012) and the National Authority Act on the Prevention of Nuclear, Chemical, and Biological Weapons (2012), within the Ministry of Higher Education and Scientific Research (formerly the Ministry of Science and Technology), established the Iraqi National Monitoring Authority (INMA) which is dedicated to controlling the import, export, and transfer of dual-use materials and the National Biorisk Management Committee. [2, 3] These also prohibit the development, production, possession, transfer, or use of chemical, biological, radiological, and nuclear weapons and their means of delivery. [2, 3] However, there is no indication that either of these acts provides for the prevention of accidents that involve the release of harmful biological substances.

According to a 2016 report from the University Research Co., Iraq participated in the Cooperative Biological Engagement Program (CBEP) with representatives in the U.S. government between 2014 and 2016. [4] The CBEP included the drafting of standard operating procedures for working with especially dangerous pathogens, such as the use of personal protective

equipment, but there is no publicly available evidence of these procedures. [4]

The Permanent Committee on Biosafety, within the Ministry of the Environment, is responsible for implementing biosafety legislation and legislation in accordance with the Cartagena Protocol, but it primarily controls genetically modified crop production. [5] There is no other evidence of national biosafety legislation through the Ministry of Health, Ministry of Agriculture, Ministry of Higher Education and Scientific Research, Ministry of Defence, Ministry of Trade, the Parliament of the Republic of Iraq, or the Iraqi Local Governance Law Library. [6, 7, 8, 9, 10, 11, 12] Iraq has submitted Confidence Building Measures under the Biological Weapons Convention in 2018, 2019 and 2020; however, the reports are not accessible to the public, and therefore it is unknown if they contain additional information on this subject. [13] The VERTIC database does not offer additional information in this regard. [14]

[1] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 19 January 2021.

[2] Parliament of the Republic of Iraq. 16 February 2012. "The National Authority Act on the Prevention of Nuclear, Chemical and Biological Weapons". [<http://arb.parliament.iq/archive/2012/02/16/%D9%82%D8%A7%D9%86%D9%88%D9%86-%D9%87%D9%8A%D8%A3%D8%A9-%D8%A7%D9%84%D8%B1%D9%82%D8%A7%D8%A8%D8%A9-%D8%A7%D9%84%D9%88%D8%B7%D9%86%D9%8A%D8%A9-%D8%B9%D9%84%D9%89-%D9%85%D9%86%D8%B9-%D8%A7%D9%84%D8%A7/>]. Accessed 19 January 2021.

[3] Al Jewari, Mahdi, et al. 26 February 2016. "Strengthening Biosecurity in Iraq: Development of a National Biorisk Management System". [<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4767897/>]. Accessed 19 January 2021.

[4] University Research Co. 2016. "Fact Sheet: The Cooperative Biological Engagement Program (CBEP) - Iraq". [<https://www.urc-chs.com/sites/default/files/Fact%20Sheet%20-%20CBEP%20Iraq%20Final%202016.pdf>]. Accessed 19 January 2021.

[5] Iraqi Ministry of the Environment. "Biosafety". [<http://www.moen.gov.iq/%D8%A7%D9%84%D8%B3%D9%84%D8%A7%D9%85%D8%A9-%D8%A7%D9%84%D8%A7%D8%AD%D9%8A%D8%A7%D8%A6%D9%8A%D8%A9>]. Accessed 19 January 2021.

[6] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 19 January 2021.

[7] Iraqi Ministry of Agriculture. [<http://www.zeraa.gov.iq/>]. Accessed 19 January 2021.

[8] Iraqi Ministry of Higher Education and Scientific Research. [<http://moheer.gov.iq/ar/>]. Accessed 19 January 2021.

[9] Iraqi Ministry of Defence. [<https://www.mod.mil.iq/>]. Accessed 19 January 2021.

[10] Iraqi Ministry of Trade. [<http://www.mot.gov.iq/>]. Accessed 19 January 2021.

[11] Parliament of the Republic of Iraq. [<http://en.parliament.iq/>]. Accessed 19 January 2021.

[12] Iraqi Local Governance Law Library. [<http://www.iraq-lg-law.org/>]. Accessed 19 January 2021.

[13] United Nations Office at Geneva. Confidence Building Measures. "Iraq". [<https://bwc-ecbm.unog.ch/state/Iraq>]. Accessed 19 January 2021.

[14] VERTIC Database. "Iraq Profile". [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/i/>]. Accessed 19 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 no publicly available evidence of an established agency responsible for the enforcement of biosafety legislation and regulations in Iraq.

The Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, does not provide evidence of an established agency responsible for the enforcement of biosafety legislation and regulations. [1]

The National Monitoring Authority for Non-Proliferation Act No. 48 (2012) and the National Authority Act on the Prevention of Nuclear, Chemical, and Biological Weapons (2012), within the Ministry of Higher Education and Scientific Research (formerly the Ministry of Science and Technology), established the Iraqi National Monitoring Authority (INMA) which is dedicated to controlling the import, export, and transfer of dual-use materials and the National Biorisk Management Committee. [2, 3] These also prohibit the development, production, possession, transfer, or use of chemical, biological, radiological, and nuclear weapons and their means of delivery. [2, 3] However, there is no indication that any of these governmental bodies provides for the prevention of accidents that involve the release of harmful biological substances.

The Permanent Committee on Biosafety, within the Ministry of the Environment, is responsible for implementing biosafety legislation and legislation in accordance with the Cartagena Protocol, but it primarily controls genetically modified crop production. [4] There is no other evidence of national biosafety legislation through the Ministry of Health, Ministry of Agriculture, Ministry of Higher Education and Scientific Research, Ministry of Defence, Ministry of Trade, the Parliament of the Republic of Iraq, or the Iraqi Local Governance Law Library. [5, 6, 7, 8, 9, 10, 11] Iraq has submitted Confidence Building Measures under the Biological Weapons Convention in 2018, 2019 and 2020; however, the reports are not accessible to the public, and therefore it is unknown if they contain additional information on this subject. [12] The VERTIC database does not offer additional information in this regard. [13]

[1] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 19 January 2021.

[2] Parliament of the Republic of Iraq. 16 February 2012. "The National Authority Act on the Prevention of Nuclear, Chemical and Biological Weapons". [<http://arb.parliament.iq/archive/2012/02/16/%D9%82%D8%A7%D9%86%D9%88%D9%86-%D9%87%D9%8A%D8%A3%D8%A9-%D8%A7%D9%84%D8%B1%D9%82%D8%A7%D8%A8%D8%A9-%D8%A7%D9%84%D9%88%D8%B7%D9%86%D9%8A%D8%A9-%D8%B9%D9%84%D9%89-%D9%85%D9%86%D8%B9-%D8%A7%D9%84%D8%A7/>]. Accessed 19 January 2021.

[3] Al Jewari, Mahdi, et al. 26 February 2016. "Strengthening Biosecurity in Iraq: Development of a National Biorisk Management System". [<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4767897/>]. Accessed 19 January 2021.

[4] Iraqi Ministry of the Environment. "Biosafety".

[<http://www.moen.gov.iq/%D8%A7%D9%84%D8%B3%D9%84%D8%A7%D9%85%D8%A9-%D8%A7%D9%84%D8%A7%D8%AD%D9%8A%D8%A7%D8%A6%D9%8A%D8%A9>]. Accessed 19 January 2021.

[5] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 19 January 2021.

[6] Iraqi Ministry of Agriculture. [<http://www.zeraa.gov.iq/>]. Accessed 19 January 2021.

[7] Iraqi Ministry of Higher Education and Scientific Research. [<http://moheer.gov.iq/ar/>]. Accessed 19 January 2021.

[8] Iraqi Ministry of Defence. [<https://www.mod.mil.iq/>]. Accessed 19 January 2021.

[9] Iraqi Ministry of Trade. [<http://www.mot.gov.iq/>]. Accessed 19 January 2021.

[10] Parliament of the Republic of Iraq. [<http://en.parliament.iq/>]. Accessed 19 January 2021.

[11] Iraqi Local Governance Law Library. [<http://www.iraq-ig-law.org/>]. Accessed 19 January 2021.

[12] United Nations Office at Geneva. Confidence Building Measures. "Iraq". [<https://bwc-ecbm.unog.ch/state/Iraq>]. Accessed 19 January 2021.

[13] VERTIC Database. "Iraq Profile". [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/i/>]. Accessed 19 January 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 no publicly available evidence that Iraq requires biosafety training using a standardized, required approach for personnel working in facilities housing especially dangerous pathogens, toxins, or pathogens with pandemic potential.

According to the Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, "a comprehensive national biosafety and biosecurity regulatory framework is currently being finalized before submission for endorsement". Further, it states that "aside from biosafety in the laboratory, more attention is needed to training fieldworkers across sectors to safely collect, handle, pack and transport specimens" [1]

According to a 2016 report from the University Research Co., Iraq participated in the Cooperative Biological Engagement Program (CBEP) with representatives in the U.S. government between 2014 and 2016. [2] The CBEP focused on biological agents and sought to enhance clinical, laboratory, and epidemiological safety and security in Iraq by providing education and training on the proper handling, management, transportation, and disposal of especially dangerous pathogens. [2] However, there is no indication that training has continued in a standardized, required capacity since the CBEP.

The Ministry of Health's Public Health Directorate Centre for Disease Control conducts training for public health staff to help prevent the spread of infectious diseases, but there is no evidence that it conducts standardized, required training for personnel regarding the release of harmful substances. [3] The Iraqi National Monitoring Authority (INMA), which was established by the National Monitoring Authority for Non-Proliferation Act No. 48 (2012) as part of the Ministry of Higher Education and Scientific Research (formerly the Ministry of Science and Technology), is dedicated to controlling the import, export, and transfer of dual-use materials. [4, 5] This authority also includes the National Biorisk Management Committee. [4] However, it is not clear whether either of these governmental bodies mandate biosafety training.

There is no other evidence of standardized, required training for personnel working in facilities housing or working with especially dangerous pathogens through the Ministry of Health, Ministry of Agriculture, Ministry of Higher Education and Scientific Research, the Central Public Health Laboratory, the Ministry of Defence, the Parliament of the Republic of Iraq, or the Iraqi Local Governance Law Library. [6, 7, 8, 9, 10, 11, 12] Iraq has submitted Confidence Building Measures under the Biological Weapons Convention in 2018, 2019 and 2020; however, the reports are not accessible to the public, and therefore it is unknown if they contain additional information on this subject. [13] The VERTIC database does not offer additional information in this regard. [14]

[1] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 19 January 2021.

[2] University Research Co. 2016. "Fact Sheet: The Cooperative Biological Engagement Program (CBEP) - Iraq". [<https://www.urc-chs.com/sites/default/files/Fact%20Sheet%20-%20CBEP%20Iraq%20Final%202016.pdf>]. Accessed 19 January 2021.

[3] Iraqi Ministry of Health. Public Health Directorate. "Center for Disease Control". [[http://www.phd.iq/CMS.php?CMS\\_P=260](http://www.phd.iq/CMS.php?CMS_P=260)]. Accessed 19 January 2021.

- [4] Al Jewari, Mahdi, et al. 26 February 2016. "Strengthening Biosecurity in Iraq: Development of a National Biorisk Management System". [<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4767897/>]. Accessed 19 January 2021.
- [5] Parliament of the Republic of Iraq. 16 February 2012. "The National Authority Act on the Prevention of Nuclear, Chemical and Biological Weapons". [<http://arb.parliament.iq/archive/2012/02/16/%D9%82%D8%A7%D9%86%D9%88%D9%86-%D9%87%D9%8A%D8%A3%D8%A9-%D8%A7%D9%84%D8%B1%D9%82%D8%A7%D8%A8%D8%A9-%D8%A7%D9%84%D9%88%D8%B7%D9%86%D9%8A%D8%A9-%D8%B9%D9%84%D9%89-%D9%85%D9%86%D8%B9-%D8%A7%D9%84%D8%A7/>]. Accessed 19 January 2021.
- [6] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 19 January 2021.
- [7] Iraqi Ministry of Agriculture. [<http://www.zeraa.gov.iq/>]. Accessed 19 January 2021.
- [8] Iraqi Ministry of Higher Education and Scientific Research. [<http://moheer.gov.iq/ar/>]. Accessed 19 January 2021.
- [9] Iraqi Ministry of Health. Public Health Directorate. "A brief description of the Central [Public] Health Laboratory". [[http://phd.iq/CMS.php?CMS\\_P=173](http://phd.iq/CMS.php?CMS_P=173)]. Accessed 19 January 2021.
- [10] Iraqi Ministry of Defence. [<https://www.mod.mil.iq/>]. Accessed 19 January 2021.
- [11] Parliament of the Republic of Iraq. [<http://en.parliament.iq/>]. Accessed 19 January 2021.
- [12] Iraqi Local Governance Law Library. [<http://www.iraq-lg-law.org/>]. Accessed 19 January 2021.
- [13] United Nations Office at Geneva. Confidence Building Measures. "Iraq". [<https://bwc-ecbm.unog.ch/state/Iraq>]. Accessed 19 January 2021.
- [14] VERTIC Database. "Iraq Profile". [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/i/>]. Accessed 19 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**

There is no publicly available evidence that Iraq has conducted an assessment to determine whether ongoing research is occurring on especially dangerous pathogens, toxins, pathogens with pandemic potential, or other dual-use research.

The Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, does not provide evidence of an assessment to determine whether ongoing research is occurring on especially dangerous pathogens, toxins, pathogens with pandemic potential, and/or other dual-use research. [1]

The Iraqi National Monitoring Authority (INMA), which was established by the National Monitoring Authority for Non-Proliferation Act No. 48 (2012) as part of the Ministry of Higher Education and Scientific Research (formerly the Ministry of Science and Technology), is dedicated to controlling the import, export, and transfer of dual-use materials. [2, 3] This authority also includes the National Biorisk Management Committee which conducts continuous assessments. [2, 3] In order to conduct dual-use research, one must obtain a license from the Ministry of Trade. [2]

There is no other evidence of an assessment to determine whether ongoing research is occurring on especially dangerous pathogens or dual-use research through the Ministry of Health, Ministry of Agriculture, Ministry of Higher Education and

Scientific Research, the Central Public Health Laboratory, the Ministry of Defence, the Parliament of the Republic of Iraq, or the Iraqi Local Governance Law Library. [4, 5, 6, 7, 8, 9, 10] Iraq has submitted Confidence Building Measures under the Biological Weapons Convention in 2018, 2019 and 2020; however, the reports are not accessible to the public, and therefore it is unknown if they contain additional information on this subject. [11] The VERTIC database does not offer additional information in this regard. [12]

[1] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019-61-eng.pdf?sequence=1>]. Accessed 19 January 2021.

[2] Al Jewari, Mahdi, et al. 26 February 2016. "Strengthening Biosecurity in Iraq: Development of a National Biorisk Management System". [<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4767897/>]. Accessed 19 January 2021.

[3] Parliament of the Republic of Iraq. 16 February 2012. "The National Authority Act on the Prevention of Nuclear, Chemical and Biological Weapons". [<http://arb.parliament.iq/archive/2012/02/16/%D9%82%D8%A7%D9%86%D9%88%D9%86-%D9%87%D9%8A%D8%A3%D8%A9-%D8%A7%D9%84%D8%B1%D9%82%D8%A7%D8%A8%D8%A9-%D8%A7%D9%84%D9%88%D8%B7%D9%86%D9%8A%D8%A9-%D8%B9%D9%84%D9%89-%D9%85%D9%86%D8%B9-%D8%A7%D9%84%D8%A7/>]. Accessed 19 January 2021.

[4] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 19 January 2021.

[5] Iraqi Ministry of Agriculture. [<http://www.zeraa.gov.iq/>]. Accessed 19 January 2021.

[6] Iraqi Ministry of Higher Education and Scientific Research. [<http://moheer.gov.iq/ar/>]. Accessed 19 January 2021.

[7] Iraqi Ministry of Health. Public Health Directorate. "A brief description of the Central [Public] Health Laboratory". [[http://phd.iq/CMS.php?CMS\\_P=173](http://phd.iq/CMS.php?CMS_P=173)]. Accessed 19 January 2021.

[8] Iraqi Ministry of Defence. [<https://www.mod.mil.iq/>]. Accessed 19 January 2021.

[9] Parliament of the Republic of Iraq. [<http://en.parliament.iq/>]. Accessed 19 January 2021.

[10] Iraqi Local Governance Law Library. [<http://www.iraq-ig-law.org/>]. Accessed 19 January 2021.

[11] United Nations Office at Geneva. Confidence Building Measures. "Iraq". [<https://bwc-ecbm.unog.ch/state/Iraq>]. Accessed 19 January 2021.

[12] VERTIC Database. "Iraq Profile". [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/i/>]. Accessed 19 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**

There is not enough evidence that Iraq has a national policy requiring oversight of dual use research, such as research with especially dangerous pathogens, toxins, and/or pathogens with pandemic potential in Iraq.

The Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, does not provide evidence of legislation and/or regulation requiring oversight of research with especially dangerous pathogens, toxins, pathogens with pandemic potential and/or other dual-use research. [1]

The National Monitoring Authority for Non-Proliferation Act No. 48 (2012) prohibits the development, production, possession, transfer, or use of CBRN weapons and their means of delivery and establishes a system to control the import, export, and transfer of dual-use materials. [2] The Iraqi National Monitoring Authority (INMA), which was established by the National Monitoring Authority for Non-Proliferation Act No. 48 (2012) as part of the Ministry of Higher Education and

Scientific Research (formerly the Ministry of Science and Technology), is dedicated to controlling the import, export, and transfer of dual-use materials. [2, 3] This authority also includes the National Biorisk Management Committee which conducts continuous assessments. [2, 3] In order to conduct dual-use research, one must obtain a license from the Ministry of Trade. [2]

There is no other evidence of a policy requiring oversight over research on especially dangerous pathogens and/or dual use research through the Ministry of Health, Ministry of Agriculture, Ministry of Higher Education and Scientific Research, the Central Public Health Laboratory, the Ministry of Defence, the Parliament of the Republic of Iraq, or the Iraqi Local Governance Law Library. [4, 5, 6, 7, 8, 9, 10] Iraq has submitted Confidence Building Measures under the Biological Weapons Convention in 2018, 2019 and 2020; however, the reports are not accessible to the public, and therefore it is unknown if they contain additional information on this subject. [11] The VERTIC database does not offer additional information in this regard. [12]

[1] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 19 January 2021.

[2] Al Jewari, Mahdi, et al. 26 February 2016. "Strengthening Biosecurity in Iraq: Development of a National Biorisk Management System". [<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4767897/>]. Accessed 19 January 2021.

[3] Parliament of the Republic of Iraq. 16 February 2012. "The National Authority Act on the Prevention of Nuclear, Chemical and Biological Weapons". [<http://arb.parliament.iq/archive/2012/02/16/%D9%82%D8%A7%D9%86%D9%88%D9%86-%D9%87%D9%8A%D8%A3%D8%A9-%D8%A7%D9%84%D8%B1%D9%82%D8%A7%D8%A8%D8%A9-%D8%A7%D9%84%D9%88%D8%B7%D9%86%D9%8A%D8%A9-%D8%B9%D9%84%D9%89-%D9%85%D9%86%D8%B9-%D8%A7%D9%84%D8%A7/>]. Accessed 19 January 2021.

[4] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 19 January 2021.

[5] Iraqi Ministry of Agriculture. [<http://www.zeraa.gov.iq/>]. Accessed 19 January 2021.

[6] Iraqi Ministry of Higher Education and Scientific Research. [<http://moheer.gov.iq/ar/>]. Accessed 19 January 2021.

[7] Iraqi Ministry of Health. Public Health Directorate. "A brief description of the Central [Public] Health Laboratory". [[http://phd.iq/CMS.php?CMS\\_P=173](http://phd.iq/CMS.php?CMS_P=173)]. Accessed 19 January 2021.

[8] Iraqi Ministry of Defence. [<https://www.mod.mil.iq/>]. Accessed 19 January 2021.

[9] Parliament of the Republic of Iraq. [<http://en.parliament.iq/>]. Accessed 19 January 2021.

[10] Iraqi Local Governance Law Library. [<http://www.iraq-ig-law.org/>]. Accessed 19 January 2021.

[11] United Nations Office at Geneva. Confidence Building Measures. "Iraq". [<https://bwc-ecbm.unog.ch/state/Iraq>]. Accessed 19 January 2021.

[12] VERTIC Database. "Iraq Profile". [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/i/>]. 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**

There is not enough evidence that Iraq has an agency responsible for oversight of research with especially dangerous pathogens, pathogens with pandemic potential, and/or other dual-use research.

The Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, does not

provide evidence of an agency responsible for oversight of research with especially dangerous pathogens, toxins, pathogens with pandemic potential and/or other dual-use research. [1]

The National Monitoring Authority for Non-Proliferation Act No. 48 (2012) prohibits the development, production, possession, transfer, or use of CBRN weapons and their means of delivery and establishes a system to control the import, export, and transfer of dual-use materials but not research. [2] The Iraqi National Monitoring Authority (INMA), which was established by the National Monitoring Authority for Non-Proliferation Act No. 48 (2012) as part of the Ministry of Higher Education and Scientific Research (formerly the Ministry of Science and Technology), is dedicated to controlling the import, export, and transfer of dual-use materials. [2, 3] This authority also includes the National Biorisk Management Committee which conducts continuous assessments. [2, 3, 4] In order to conduct dual-use research, one must obtain a license from the Ministry of Trade. [2]

There is no other evidence of an agency responsible for oversight of research with especially dangerous pathogens through the Ministry of Health, Ministry of Agriculture, Ministry of Higher Education and Scientific Research, the Central Public Health Laboratory, the Ministry of Defence, the Parliament of the Republic of Iraq, or the Iraqi Local Governance Law Library. [5, 6, 7, 8, 9, 10, 11] Iraq has submitted Confidence Building Measures under the Biological Weapons Convention in 2018, 2019 and 2020; however, the reports are not accessible to the public, and therefore it is unknown if they contain additional information on this subject. [12] The VERTIC database does not offer additional information in this regard. [13]

[1] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 19 January 2021.

[2] Al Jewari, Mahdi, et al. 26 February 2016. "Strengthening Biosecurity in Iraq: Development of a National Biorisk Management System". [<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4767897/>]. Accessed 19 January 2021.

[3] Parliament of the Republic of Iraq. 16 February 2012. "The National Authority Act on the Prevention of Nuclear, Chemical and Biological Weapons". [<http://arb.parliament.iq/archive/2012/02/16/%D9%82%D8%A7%D9%86%D9%88%D9%86-%D9%87%D9%8A%D8%A3%D8%A9-%D8%A7%D9%84%D8%B1%D9%82%D8%A7%D8%A8%D8%A9-%D8%A7%D9%84%D9%88%D8%B7%D9%86%D9%8A%D8%A9-%D8%B9%D9%84%D9%89-%D9%85%D9%86%D8%B9-%D8%A7%D9%84%D8%A7/>]. Accessed 19 January 2021.

[4] The Eastern Mediterranean Public Health Network (EMPHNET). 26 July 2018. "GHD/EMPHNET and Iraq Ministries of Health and Agriculture Explore Strengthening Biosecurity and Biosafety Practices for Public Health and Veterinary Laboratories". [<http://emphnet.net/?news=ghdemphnet-and-iraq-ministries-of-health-and-agriculture-explore-strengthening-biosecurity-and-biosafety-practices-for-public-health-and-veterinary-laboratories>]. Accessed 19 January 2021.

[5] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 19 January 2021.

[6] Iraqi Ministry of Agriculture. [<http://www.zeraa.gov.iq/>]. Accessed 19 January 2021.

[7] Iraqi Ministry of Higher Education and Scientific Research. [<http://moheer.gov.iq/ar/>]. Accessed 19 January 2021.

[8] Iraqi Ministry of Health. Public Health Directorate. "A brief description of the Central [Public] Health Laboratory". [[http://phd.iq/CMS.php?CMS\\_P=173](http://phd.iq/CMS.php?CMS_P=173)]. Accessed 19 January 2021.

[9] Iraqi Ministry of Defence. [<https://www.mod.mil.iq/>]. Accessed 19 January 2021.

[10] Parliament of the Republic of Iraq. [<http://en.parliament.iq/>]. Accessed 19 January 2021.

[11] Iraqi Local Governance Law Library. [<http://www.iraq-lg-law.org/>]. Accessed 19 January 2021.

[12] United Nations Office at Geneva. Confidence Building Measures. "Iraq". [<https://bwc-ecbm.unog.ch/state/Iraq>]. Accessed 19 January 2021.

[13] VERTIC Database. "Iraq Profile". [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/i/>]. Accessed 19 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 of national legislation, regulation, policy, or other guidance requiring the screening of synthesized DNA before it is sold.

The Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, does not provide evidence of legislation nor regulation requiring the screening of synthesized DNA (deoxyribonucleic acid) against lists of known pathogens and toxins before it is sold. [1]

Biosafety of Genetically Modified Organisms Regulations No. 2 of 2015 established a Permanent National Committee for Biosafety within the Ministry of the Environment that regulates the production, import, and use of genetically modified agricultural products. [2, 3] However, there is no indication that this covers synthesized or recombinant DNA as a whole.

There is no evidence of national legislation, regulation, policy, or other guidance requiring the screening of synthesized DNA before it is sold through the Ministry of Health, Ministry of Agriculture, Ministry of Higher Education and Scientific Research, Ministry of Defence, Ministry of Transportation, the Ministry of the Environment, the Parliament of the Republic of Iraq, or the Iraqi Local Governance Law Library. [4, 5, 6, 7, 8, 9, 10, 11] Iraq has submitted Confidence Building Measures under the Biological Weapons Convention in 2018, 2019 and 2020; however, the reports are not accessible to the public, and therefore it is unknown if they contain additional information on this subject. [12] The VERTIC database does not offer additional information in this regard. [13]

[1] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 20 January 2021.

[2] Iraqi Ministry of the Environment. "Biosafety".

[<http://www.moen.gov.iq/%D8%A7%D9%84%D8%B3%D9%84%D8%A7%D9%85%D8%A9-%D8%A7%D9%84%D8%A7%D8%AD%D9%8A%D8%A7%D8%A6%D9%8A%D8%A9>]. Accessed 20 January 2021.

[3] Iraqi Ministry of the Environment. 23 March 2015. "Biosafety of Genetically Modified Organisms Regulations No. 2 of 2015".

[<http://www.moen.gov.iq/Portals/0/%D8%A7%D9%84%D8%B3%D9%84%D8%A7%D9%85%D8%A9%20%D8%A7%D9%84%D8%A7%D8%AD%D9%8A%D8%A7%D8%A6%D9%8A%D8%A9/Oyat.pdf>]. Accessed 20 January 2021.

[4] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 20 January 2021.

[5] Iraqi Ministry of Agriculture. [<http://www.zeraa.gov.iq/>]. Accessed 20 January 2021.

[6] Iraqi Ministry of Higher Education and Scientific Research. [<http://moheer.gov.iq/ar/>]. Accessed 20 January 2021.

[7] Iraqi Ministry of Defence. [<https://www.mod.mil.iq/>]. Accessed 20 January 2021.

[8] Iraqi Ministry of Transportation. [<http://www.motrans.gov.iq/>]. Accessed 20 January 2021.

[9] Iraqi Ministry of the Environment. [<http://www.moen.gov.iq/>]. Accessed 20 January 2021.

[10] Parliament of the Republic of Iraq. [<http://en.parliament.iq/>]. Accessed 20 January 2021.

[11] Iraqi Local Governance Law Library. [<http://www.iraq-ig-law.org/>]. Accessed 20 January 2021.

[12] United Nations Office at Geneva. Confidence Building Measures. "Iraq". [<https://bwc-ecbm.unog.ch/state/Iraq>]. Accessed 20 January 2021.

[13] VERTIC Database. "Iraq Profile". [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/i/>]. 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: 1

2019

World Health Organization

#### 1.6.1b

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

Yes = 1, No = 0

Current Year Score: 1

2020

OIE WAHIS database

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

## 2.1 LABORATORY SYSTEMS STRENGTH AND QUALITY

### 2.1.1 Laboratory testing for detection of priority diseases

#### 2.1.1a

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

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

Current Year Score: 2

There is evidence that the national laboratory system has the capacity to conduct diagnostic tests for at least 5 of the 10 WHO-defined core tests.

According to the Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was conducted in March 2019, "the country, mainly at the national level, is able to perform six core tests and related antimicrobial susceptibility testing and participation in external quality assessment programs, including for (1) PCR for influenza; (2) virus culture for poliovirus; (3) serology for HIV; (4) microscopy for Mycobacterium tuberculosis; (5) rapid diagnostic testing for Plasmodium spp; and (6) bacterial culture for Salmonella Typhi. Additional tests selected by the country are for detection of viral hepatitis, Vibrio cholerae, and bacterial meningitis". [1]

[1] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 20 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 no publicly available information that shows that there is a national plan, strategy or similar document for conducting testing during a public health emergency, which includes considerations for testing for novel pathogens, scaling capacity, and defining goals for testing.

The Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, does not provide information that shows that Iraq has a national plan, strategy, or similar document for conducting testing during a public health emergency, which includes considerations for testing for novel pathogens, scaling capacity, and defining goals for testing. [1] Neither the Ministry of Health, Ministry of Agriculture, Ministry of Higher Education and Scientific Research, nor the Ministry of the Environment provides information that shows that Iraq has a national plan, strategy, or similar document for conducting testing during a public health emergency, which includes considerations for testing for novel pathogens, scaling capacity, and defining goals for testing. [2,3,4,5]

[1] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 20 January 2021.

[2] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 20 January 2021.

[3] Iraqi Ministry of Agriculture. [<http://www.zeraa.gov.iq/>]. Accessed 20 January 2021.

[4] Iraqi Ministry of Higher Education and Scientific Research. [<http://mohesr.gov.iq/ar/>]. Accessed 20 January 2021.

[5] Iraqi Ministry of the Environment. [<http://www.moen.gov.iq/>]. Accessed 20 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 no evidence that shows that there is a national laboratory that serves as a reference facility that is accredited.

According to the Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, "the Central Public Health Laboratory (CPHL) and Central Veterinary Laboratory (CVL) are the main reference laboratories for public and animal health, respectively. While the indicator laboratory testing for detection of priority diseases (D.1.1) was scored as demonstrated capacity, it should be noted that there is still room for improvement. This is especially true for laboratory quality and safety. CPHL is not accredited against international standards (e.g. ISO15189). Although progress has been made in this area, funds are lacking to fully achieve this. National laboratory quality standards do not exist". [1]

Neither the Ministry of Health, Ministry of Agriculture, nor Ministry of Higher Education and Scientific Research provides information that shows that Iraq has a national laboratory that serves as a reference facility that is accredited. [2,3,4]

[1] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 20 January 2021.

[2] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 20 January 2021.

[3] Iraqi Ministry of Agriculture. [<http://www.zeraa.gov.iq/>]. Accessed 20 January 2021.

[4] Iraqi Ministry of Higher Education and Scientific Research. [<http://moheer.gov.iq/ar/>]. Accessed 20 January 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 publicly available information that shows that there is a national laboratory that serves as a reference facility which is subject to external quality assurance review.

According to the Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was conducted in March 2019, "National-level laboratories participate in several international external quality assessment (EQA) programmes", but there is no specific mention of the national reference facility. [1] The JEE report also states that "the Central Public Health Laboratory (CPHL) and Central Veterinary Laboratory (CVL) are the main reference laboratories for public and animal health, respectively. While the indicator laboratory testing for detection of priority diseases (D.1.1) was scored as demonstrated capacity, it should be noted that there is still room for improvement. This is especially true for laboratory quality and safety. CPHL is not accredited against international standards (e.g. ISO15189). Although progress has been made in this area, funds are lacking to fully achieve this. National laboratory quality standards do not exist". [1]

Neither the Ministry of Health, Ministry of Agriculture, nor Ministry of Higher Education and Scientific Research provides information that shows that Iraq has a national laboratory that serves as a reference facility which is subject to external

quality assurance review. [2,3,4]

[1] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 20 January 2021.

[2] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 20 January 2021.

[3] Iraqi Ministry of Agriculture. [<http://www.zeraa.gov.iq/>]. Accessed 20 January 2021.

[4] Iraqi Ministry of Higher Education and Scientific Research. [<http://moheer.gov.iq/ar/>]. 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**

There is publicly available information that shows that there is a nationwide specimen transport system in Iraq.

According to the Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was conducted in March 2019, "a system is in place to transport specimens from all districts in the country to the national reference laboratories for testing, facilitated by the Ministry of Health (MoH)". [1] Moreover, the JEE mentions that "a cohort of shippers from district and national levels was recently trained and certified by WHO using the Infectious Substances Shipping Training (ISST)". Iraq got a score of '4' on the JEE's indicator D.1.2 "Specimen referral and transport system". In terms of recommendations, the JEE states that "shipping of specimens, including high-threat pathogens, from district to national levels can be further improved by performing drills reviewing the functioning of specimen collection, packing, transportation and receipt. The exercise scenario should be based on a (fictional) zoonotic disease outbreak to test multisectoral coordination". Additionally, it recommends that Iraq investigates "opportunities to engage with the national airline and its pilots for shipping of specimens by air to the national reference laboratory". [1] The websites of the Ministry of Health, as well as the Public Health Directorate and the Center for Disease Control, do not provide additional information to show that there is a nationwide specimen transport system in Iraq. [2, 3, 4] An online search fails to yield additional information in this regard.

[1] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 20 January 2021.

[2] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 21 January 2021.

[3] Iraqi Ministry of Health. Public Health Directorate. [<http://phd.iq/index.php>]. Accessed 21 January 2021.

[4] Iraqi Ministry of Health. Public Health Directorate. "Centre for Disease Control". [[http://www.phd.iq/CMS.php?CMS\\_P=260](http://www.phd.iq/CMS.php?CMS_P=260)]. Accessed 21 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 information that shows that Iraq has a plan in place to rapidly authorize or license laboratories to supplement the capacity of the national public health laboratory system to scale-up testing during an outbreak.

The Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, states that "sustainable procurement of reliable point of care tests, including rapid diagnostic tests, remains a challenge and options to improve this should be investigated". It does not provide information about emergency authorization or licensing of laboratories to supplement the capacity of the national public health laboratory system to scale-up testing during an outbreak. It mentions emergency public health personnel deployment and licensing. [1]

The Ministry of Health's "Disaster Management in Iraq Guide" (page 48 and 49), in chapter 4 tackling Chemical Biological Radiological Nuclear (CBRN) risk, outlines measures to establish and equip new laboratories, as well as scale up laboratory capacities through making use of existing capacities of ministries such as the Ministry of Agriculture, Ministry of Environment, Ministry of Health, Ministry of Science and Technology, etc. However, there is no evidence of a plan to rapidly license laboratories specifically to supplement existing laboratory testing capacity during a public health emergency situation. [2]

The websites of the Ministry of Health, the Ministry of Agriculture, the Ministry of Environment, Ministry of Higher Education and Scientific Research, and the Public Health Directorate all do not provide evidence of a plan in place to rapidly authorize or license laboratories to supplement the capacity of the national public health laboratory system to scale-up testing during an outbreak. [3, 4, 5, 6, 7]

[1] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 21 January 2021.

[2] Iraqi Ministry of Health. "Disaster Management in Iraq Guide". [<https://moh.gov.iq/upload/upfile/ar/1417.pdf>]. Accessed 21 January 2021.

[3] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 21 January 2021.

[4] Iraqi Ministry of Agriculture. [<http://www.zeraa.gov.iq/>]. Accessed 21 January 2021.

[5] Iraqi Ministry of Higher Education and Scientific Research. [<http://mohesr.gov.iq/ar/>]. Accessed 21 January 2021.

[6] Iraqi Ministry of the Environment. [<http://www.moen.gov.iq/>]. Accessed 21 January 2021.

[7] Iraqi Ministry of Health. Public Health Directorate. [<http://phd.iq/index.php>]. Accessed 21 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: 0**

There is no publicly available information that shows that Iraq is conducting ongoing event-based surveillance and analysis for infectious disease.

According to the Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, "Iraq has a long experience of surveillance of human infectious diseases. Event-based surveillance is yet to be fully implemented at the national and sub-national levels. The signals detected passively by the system are followed up by rapid response teams to respond to the type of threat detected. Indicator-based surveillance is performed through a mandatory notification system of priority diseases and the 1450 surveillance sites include all government hospitals". [1] The JEE report also mentions that "the notification system involves reporting from clinicians and laboratories to the national level. District level data is paper-based and collected on a weekly basis from all surveillance sites. Thereafter, the districts enter the data electronically (into an Epi-Info 7 template) and send it to the DoH (via email), which in turn sends the data to CDC (via email) where it is appended to a master file". Therefore, the JEE does not provide evidence of ongoing event-based surveillance and analysis for infectious disease. [1]

None of the websites of the Ministry of Health, the Ministry of Agriculture, the Ministry of Environment, Ministry of Higher Education and Scientific Research, and the Public Health Directorate provide information that shows that Iraq is conducting ongoing event-based surveillance and analysis for infectious disease. [2, 3, 4, 5, 6]

[1] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 21 January 2021.

[2] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 21 January 2021.

[3] Iraqi Ministry of Agriculture. [<http://www.zeraa.gov.iq/>]. Accessed 21 January 2021.

[4] Iraqi Ministry of Higher Education and Scientific Research. [<http://moheer.gov.iq/ar/>]. Accessed 21 January 2021.

[5] Iraqi Ministry of the Environment. [<http://www.moen.gov.iq/>]. Accessed 21 January 2021.

[6] Iraqi Ministry of Health. Public Health Directorate. [<http://phd.iq/index.php>]. Accessed 21 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: 0**

There is no evidence that Iraq has reported a potential public health emergency of international concern (PHEIC) to the World Health Organisation (WHO) within the last two years, including for Covid-19.

According to WHO reporting, there was a suspected case of cholera in Basra in November 2018. The Ministry of Health collaborated with WHO to investigate the incident, and the WHO notes that the Ministry of Health has reported 104,599 cumulative cases of gastrointestinal illnesses as of October 2018. [1] However, the aforementioned event occurred more than two years ago.

No further information is available via other sources of reporting. According to the WHO Disease Outbreak News (DONs) reporting, there is no reported outbreak for Iraq since a cholera outbreak in November 2015. [2] There is no other evidence of a potential PHEIC through the Ministry of Health, Ministry of Agriculture, or WHO Iraq country websites. [3,4,5]

- [1] World Health Organisation (WHO). 2 November 2018. "WHO and the Ministry of Health intensify response to gastroenteritis outbreak amid water crisis in Basra". [<http://www.emro.who.int/irq/iraq-news/ministry-of-health-intensifies-response-to-gastroenteritis-outbreak-amid-water-crisis-in-basra.html>]. Accessed 21 January 2021.
- [2] World Health Organisation (WHO). Disease Outbreak News (DONs). "Emergencies preparedness, response: Iraq". [<https://www.who.int/csr/don/archive/country/irq/en/>]. Accessed 21 January 2021.
- [3] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 21 January 2021.
- [4] Iraqi Ministry of Agriculture. [<http://www.zeraa.gov.iq/>]. Accessed 21 January 2021.
- [5] World Health Organisation (WHO). Regional Office for the Eastern Mediterranean. "Iraq". [<http://www.emro.who.int/countries/irq/index.html>]. Accessed 21 January 2021.

## 2.3.2 Interoperable, interconnected, electronic real-time reporting systems

### 2.3.2a

**Does the government operate an electronic reporting surveillance system at both the national and the sub-national level?**

Yes = 1 , No = 0

**Current Year Score: 1**

There is evidence that Iraq operates an electronic reporting surveillance system at both the national and sub-national levels.

According to the Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, "Iraq has a long experience of surveillance of human infectious diseases. Event-based surveillance is yet to be fully implemented at the national and subnational levels. The signals detected passively by the system are followed up by rapid response teams to respond to the type of threat detected. Indicator-based surveillance is performed through a mandatory notification system of priority diseases and the 1450 surveillance sites include all government hospitals". [1] The JEE report also mentions that "the notification system involves reporting from clinicians and laboratories to the national level. District level data is paper-based and collected on a weekly basis from all surveillance sites. Thereafter, the districts enter the data electronically (into an Epi-Info 7 template) and send it to the DoH (via email), which in turn sends the data to CDC (via email) where it is appended to a master file". The JEE adds that the electronic system at the national level exists to facilitate the analysis and reporting of surveillance data. [1] The websites of the Ministry of Health, as well as the Public Health Directorate, do not provide additional information in this regard. [2, 3] The Early Warning and Response Network (EWARNs), which is administered with assistance from the World Health Organisation (WHO), was established in 2013 in response to the influx of refugees from neighbouring Syria and has two components: an immediate alert component (for early verification and investigation) and a weekly reporting component (for monitoring trends of an event). [4, 5] EWARNs is operational in all governorates in Iraq, and the immediate electronic reporting, verification and outbreak investigation of alerts is conducted by the governorate's department of health, the WHO and other partners. [5]

- [1] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 21 January 2021.
- [2] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 21 January 2021.
- [3] Iraqi Ministry of Health. Public Health Directorate. "Centre for Disease Control". [[http://www.phd.iq/CMS.php?CMS\\_P=260](http://www.phd.iq/CMS.php?CMS_P=260)]. Accessed 21 January 2021.
- [4] World Health Organisation (WHO). "Iraq: Early Warning and Response Network Bulletins". [<http://www.emro.who.int/irq/ewarns/index.html>]. Accessed 21 January 2021.
- [5] World Health Organisation (WHO). "Iraq: EWARNs Dashboard". [<http://www.emro.who.int/irq/ewarns/ewarns->

dashboard.html]. Accessed 21 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**

There is no publicly available information that shows that Iraq's electronic reporting surveillance system collects ongoing or real-time laboratory data.

According to the Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, "Iraq has a long experience of surveillance of human infectious diseases. Event-based surveillance is yet to be fully implemented at the national and subnational levels. The signals detected passively by the system are followed up by rapid response teams to respond to the type of threat detected. Indicator-based surveillance is performed through a mandatory notification system of priority diseases and the 1450 surveillance sites include all government hospitals". [1] The JEE report also mentions that "the notification system involves reporting from clinicians and laboratories to the national level. District level data is paper-based and collected on a weekly basis from all surveillance sites. Thereafter, the districts enter the data electronically (into an Epi-Info 7 template) and send it to the DoH (via email), which in turn sends the data to CDC (via email) where it is appended to a master file". Since the JEE mentions that the paper-based data is collected on a weekly basis before being then entered electronically, therefore, there the JEE does not provide evidence that Iraq's electronic reporting surveillance system collects ongoing or real-time laboratory data. [1]

The Early Warning and Response Network (EWARNs), which is administered with assistance from the World Health Organisation (WHO), was established in 2013 in response to the influx of refugees from neighboring Syria and has two components: an immediate alert component (for early verification and investigation) and a weekly reporting component (for monitoring trends of an event). [2, 3] EWARNs is operational in all governorates in Iraq, and the immediate electronic reporting, verification, and outbreak investigation of alerts is conducted by the governorate's department of health, the WHO, and other partners. [3] However, there is no evidence that this system conducts ongoing, real-time laboratory data through the Ministry of Health, Ministry of Agriculture, the Central Public Health Laboratory, or the Centre for Disease Control. [4, 5, 6, 7]

[1] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 21 January 2021.

[2] World Health Organisation (WHO). "Iraq: Early Warning and Response Network Bulletins". [<http://www.emro.who.int/irq/ewarns/index.html>]. Accessed 21 January 2021.

[3] World Health Organisation (WHO). "Iraq: EWARNs Dashboard". [<http://www.emro.who.int/irq/ewarns/ewarns-dashboard.html>]. Accessed 21 January 2021.

[4] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 21 January 2021.

[5] Iraqi Ministry of Agriculture. [<http://www.zeraa.gov.iq/>]. Accessed 21 January 2021.

[6] Iraqi Ministry of Health. Public Health Directorate. "A brief description of the Central [Public] Health Laboratory". [[http://phd.iq/CMS.php?CMS\\_P=173](http://phd.iq/CMS.php?CMS_P=173)]. Accessed 21 January 2021.

[7] Iraqi Ministry of Health. Public Health Directorate. "Centre for Disease Control". [[http://www.phd.iq/CMS.php?CMS\\_P=260](http://www.phd.iq/CMS.php?CMS_P=260)]. Accessed 21 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: 0**

There is no evidence that electronic health records exist or are in use.

As part of the e-Iraq electronic government initiative, the Ministry of Health published an "Electronic Strategy and Information and Communication Technology for the Electronic Health Sector" in 2011. [1, 2] However, this strategy does not include a reference to the existence of an electronic records system. [1]

According to a study titled "ELECTRONIC-HEALTH IN IRAQ" and published by the International Journal for Advanced Research (IJAR) in August 2016, the "establishment of an efficient national health information system and the introduction of e-health" is identified as a challenge facing the Iraqi public health system. Thus, the study shows that "e-health" electronic recordkeeping is not yet in common practice in the Iraqi public health system. [3]

There is no other indication that electronic records are commonly in use in Iraq through the Ministry of Health, Ministry of Agriculture, Central Public Health Laboratory, the Centre of Disease Control, or the World Health Organisation (WHO) Iraq country page. [4, 5, 6, 7, 8] The Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, does not mention electronic health records whatsoever. [9]

Additionally, a study titled, "E-Health State In Middle East Countries: An Overview", by The Turkish Online Journal of Design, Art and Communication, shows that Iraq's e-Health system is limited to recording "births, deaths, and causes of death using an electronic information system", as well as having "at least one electronic information system in place to collect and report health data at district level". It does not provide evidence of an electronic health record system. [10] Based on a research article about electronic health records in the Middle East, by the International Journal of Development Research from 2016, there does not seem to be evidence of an electronic health record system in Iraq. [11]

[1] Iraqi Ministry of Health. 13-20 April 2011. "Electronic Strategy and Information Technology and Communication Work Plan for the Electronic Health Sector". [https://moh.gov.iq/upload/upfile/ar/estra.pdf]. Accessed 21 January 2021.

[2] Iraqi Ministry of Health. "National Strategy and Work Plan for Iraqi Electronic Government: 2012-2015". [https://moh.gov.iq/upload/upfile/ar/709.pdf]. Accessed 21 January 2021.

[3] Sabur, Dhyaa, et al. International Journal of Advanced Research. August 2016. "Electronic-Health in Iraq". [https://www.researchgate.net/publication/307950757\_ELECTRONIC-HEALTH\_IN\_IRAQ?\_sg=a6Q22bSd-D3bKUuuFdiJ1YcXRMK20Si4GCRhq5wcpEOx7t8AnVWGgUZ74FRD2zTOWWPu7ygnN2ySiVQ]. Accessed 21 January 2021.

[4] Iraqi Ministry of Health. [https://moh.gov.iq/]. Accessed 21 January 2021.

[5] Iraqi Ministry of Agriculture. [http://www.zeraa.gov.iq/]. Accessed 21 January 2021.

[6] Iraqi Ministry of Health. Public Health Directorate. "A brief description of the Central [Public] Health Laboratory". [http://phd.iq/CMS.php?CMS\_P=173]. Accessed 21 January 2021.

[7] Iraqi Ministry of Health. Public Health Directorate. "Centre for Disease Control". [http://www.phd.iq/CMS.php?CMS\_P=260]. Accessed 21 January 2021.

- [8] World Health Organisation (WHO). Regional Office for the Eastern Mediterranean. "Iraq". [<http://www.emro.who.int/countries/irq/index.html>]. Accessed 21 January 2021.
- [9] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 21 January 2021.
- [10] Turkish Online Journal of Design, Art and Communication. "E-Health State In Middle East Countries: An Overview". September 2018. [[http://tojdac.org/tojdac/VOLUME8-SPTMSPCL\\_files/tojdac\\_v080SSE375.pdf](http://tojdac.org/tojdac/VOLUME8-SPTMSPCL_files/tojdac_v080SSE375.pdf)]. Accessed 21 January 2021.
- [11] International Journal of Development Research. "A Review Of Adoption Of Electronic Health Records In Middle Eastern Countries". September 2016. [<https://www.journalijdr.com/sites/default/files/issue-pdf/6485.pdf>]. Accessed 21 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**

There is no evidence that electronic health records exist or are in use, and therefore no evidence that the national public health system have access to electronic health records of individuals in their country.

As part of the e-Iraq electronic government initiative, the Ministry of Health published an "Electronic Strategy and Information and Communication Technology for the Electronic Health Sector" in 2011. [1, 2] However, this strategy does not include reference to the existence of an electronic records system. [1]

According to a study titled "ELECTRONIC-HEALTH IN IRAQ" and published by the International Journal for Advanced Research (IJAR) in August 2016, the "establishment of an efficient national health information system and the introduction of e-health" is identified as a challenge facing the Iraqi public health system. Thus, the study shows that "e-health" electronic recordkeeping is not yet in common practice in the Iraqi public health system. [3]

There is no other indication that electronic records are commonly in use in Iraq through the Ministry of Health, Ministry of Agriculture, Central Public Health Laboratory, the Centre of Disease Control, or the World Health Organisation (WHO) Iraq country page. [4, 5, 6, 7, 8] The Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, does not mention electronic health records whatsoever. [9]

Additionally, a study titled, "E-Health State In Middle East Countries: An Overview", by The Turkish Online Journal of Design, Art and Communication, shows that Iraq's e-Health system is limited to recording "births, deaths, and causes of death using an electronic information system", as well as having "at least one electronic information system in place to collect and report health data at district level". It does not provide evidence of an electronic health record system. [10] Based on a research article about electronic health records in the Middle East, by the International Journal of Development Research from 2016, there does not seem to be evidence of an electronic health record system in Iraq. [11]

Regarding Iraq's healthcare system generally, according to the "ELECTRONIC-HEALTH IN IRAQ" study of 2016, "Iraq's healthcare system is classified as primary by the World Health Organization, which indicates it is based upon practical, scientifically sound and socially acceptable methods and technologies made universally accessible to individuals and families in the community through their full participation in the spirit of self-reliance and self-determination". The study adds that the "Iraqi healthcare system is primarily central, with certain allocation of government funding going towards the sector per year". [3] The US government's 'Export.Gov' mentions that "there are two market sectors for the health industry

in Iraq: (1) Public (Government) sector, which cover about 75% of all health facilities, and (2) Private sector, which represents the other 25%". [12]

[1] Iraqi Ministry of Health. 13-20 April 2011. "Electronic Strategy and Information Technology and Communication Work Plan for the Electronic Health Sector". [https://moh.gov.iq/upload/upfile/ar/estra.pdf]. Accessed 22 January 2021.

[2] Iraqi Ministry of Health. "National Strategy and Work Plan for Iraqi Electronic Government: 2012-2015". [https://moh.gov.iq/upload/upfile/ar/709.pdf]. Accessed 22 January 2021.

[3] Sabur, Dhyaa, et al. International Journal of Advanced Research. August 2016. "Electronic-Health in Iraq". [https://www.researchgate.net/publication/307950757\_ELECTRONIC-HEALTH\_IN\_IRAQ?\_sg=a6Q22bSd-D3bKUuFdi1YcXRMK20Si4GCRhq5wcpEOx7t8AnVWgGuz74FRD2zTOWWPu7ygnN2ySiVQ]. Accessed 22 January 2021.

[4] Iraqi Ministry of Health. [https://moh.gov.iq/]. Accessed 22 January 2021.

[5] Iraqi Ministry of Agriculture. [http://www.zeraa.gov.iq/]. Accessed 22 January 2021.

[6] Iraqi Ministry of Health. Public Health Directorate. "A brief description of the Central [Public] Health Laboratory". [http://phd.iq/CMS.php?CMS\_P=173]. Accessed 22 January 2021.

[7] Iraqi Ministry of Health. Public Health Directorate. "Centre for Disease Control". [http://www.phd.iq/CMS.php?CMS\_P=260]. Accessed 22 January 2021.

[8] World Health Organisation (WHO). Regional Office for the Eastern Mediterranean. "Iraq". [http://www.emro.who.int/countries/irq/index.html]. Accessed 22 January 2021.

[9] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1]. Accessed 22 January 2021.

[10] Turkish Online Journal of Design, Art and Communication. "E-Health State In Middle East Countries: An Overview". September 2018. [http://tojdac.org/tojdac/VOLUME8-SPTMSPCL\_files/tojdac\_v080SSE375.pdf]. Accessed 22 January 2021.

[11] International Journal of Development Research. "A Review Of Adoption Of Electronic Health Records In Middle Eastern Countries". September 2016. [https://www.journalijdr.com/sites/default/files/issue-pdf/6485.pdf]. Accessed 22 January 2021.

[12] Export.Gov "Healthcare Resource Guide: Iraq (2018)".

[https://2016.export.gov/industry/health/healthcareresourceguide/eg\_main\_116238.asp]. Accessed 22 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**

There is no publicly available evidence that Iraq has data standards in place to ensure that data is compatible.

The Iraqi Central Organisation for Standardization and Quality Control is responsible for mandating technical standards in Iraq. However, this organization establishes technical standards for measurement and calibration, and there is no evidence that it maintains requirements that electronic record data be standardized. [1]

According to the Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, "the Central Public Health Laboratory (CPHL) and Central Veterinary Laboratory (CVL) are the main reference laboratories for public and animal health, respectively. While the indicator laboratory testing for detection of priority diseases (D.1.1) was scored as demonstrated capacity, it should be noted that there is still room for improvement. This is especially true for laboratory quality and safety. CPHL is not accredited against international standards (e.g. ISO15189). Although progress has been made in this area, funds are lacking to fully achieve this. National laboratory quality standards do not exist". [2]

Therefore, the JEE report does not provide evidence that shows that data standards are used to ensure data is comparable.

There is no evidence of data standards in place through the Ministry of Health, Ministry of Agriculture, the Central Public Health Laboratory, and the Centre for Disease Control. [3, 4, 5, 6]

- [1] Iraqi Central Organisation for Standardization and Quality Control. [<http://cosqc.gov.iq/ar/home.aspx>]. Accessed 22 January 2021.
- [2] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 22 January 2021.
- [3] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 22 January 2021.
- [4] Iraqi Ministry of Agriculture. [<http://www.zeraa.gov.iq/>]. Accessed 22 January 2021.
- [5] Iraqi Ministry of Health. Public Health Directorate. "A brief description of the Central [Public] Health Laboratory". [[http://phd.iq/CMS.php?CMS\\_P=173](http://phd.iq/CMS.php?CMS_P=173)]. Accessed 22 January 2021.
- [6] Iraqi Ministry of Health. Public Health Directorate. "Centre for Disease Control". [[http://www.phd.iq/CMS.php?CMS\\_P=260](http://www.phd.iq/CMS.php?CMS_P=260)]. Accessed 22 January 2021.

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

### 2.4.2a

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

Yes = 1 , No = 0

**Current Year Score: 1**

There is publicly available evidence of an established mechanism responsible for animal, human, and wildlife surveillance to share data in Iraq.

According to the Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, "an International Health Regulations (IHR of 2005) technical committee has been established within the MoH, chaired by the Director-General of the Public Health Directorate with participants (contact points) from sectors involved in country-level IHR implementation including those responsible for public health, food safety, veterinary medicine, emergency management, environment, Points of Entry (POEs), economy and trade, agriculture (including animal health), radio-nuclear safety and chemical safety, industry, transportation, finance, defence, and all other IHR-bound sectors. Awareness on IHR is limited among sectors in terms of coordination and reporting". [1]

The report adds that "the IHR-bound ministries coordinate through sharing of data, a multisectoral committee of experts and Emergency Operations Centre during emergencies, as well as through field visits. Reporting and coordination between the Ministry of Health (MoH) and the Ministry of Agriculture (MoA) is present but very weak. Sharing information is not systematic and mainly occurs during crisis events rather than through a regular and continuous process"[1].

According to reporting by the Eastern Mediterranean Public Health Network (EMPHNET) in August 2018, the Ministry of Health and Ministry of Agriculture coordinate with EMPHNET to form the Iraq Brucellosis Steering Committee that is implementing a project to strengthen the surveillance, diagnosis, and control of brucellosis in the country. [2] There is no other evidence of a data-sharing mechanism for surveillance through the Ministry of Health, Ministry of Agriculture, Ministry

of Higher Education and the Scientific Research, the Ministry of the Environment, the Central Public Health Laboratory, or the Centre for Disease Control. [3, 4, 5, 6, 7, 8]

[1] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 22 January 2021.

[2] The Eastern Mediterranean Public Health Network (EMPHNET). 1 August 2018. "Iraq MoH and GHD/EMPHNET Collaborate to Enhance Brucellosis Surveillance, Diagnosis, and Control". [<http://emphnet.net/en/media-center/news/2018/iraq-moh-and-ghd-emphnet-collaborate-to-enhance-brucellosis-surveillance-diagnosis-and-control/>]. Accessed 22 January 2021.

[3] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 22 January 2021.

[4] Iraqi Ministry of Agriculture. [<http://www.zeraa.gov.iq/>]. Accessed 22 January 2021.

[5] Iraqi Ministry of Higher Education and Scientific Research. [<http://mohesr.gov.iq/ar/>]. Accessed 22 January 2021.

[6] Iraqi Ministry of the Environment. [<http://www.moen.gov.iq/>]. Accessed 22 January 2021.

[7] Iraqi Ministry of Health. Public Health Directorate. "A brief description of the Central [Public] Health Laboratory". [[http://phd.iq/CMS.php?CMS\\_P=173](http://phd.iq/CMS.php?CMS_P=173)]. Accessed 22 January 2021.

[8] Iraqi Ministry of Health. Public Health Directorate. "Centre for Disease Control". [[http://www.phd.iq/CMS.php?CMS\\_P=260](http://www.phd.iq/CMS.php?CMS_P=260)]. Accessed 22 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**

Iraq does not make de-identified health surveillance data on disease outbreaks publicly available via reports on the Ministry of Health website or other public websites.

The Ministry of Health Public Health Directorate's Centre for Disease Control regularly released de-identified weekly reports on notifiable cases of communicable and non-communicable diseases by province, but only until the first few weeks of 2019.

[1] Additionally, the Ministry of Health and the World Health Organisation (WHO) share weekly epidemiological information through the Early Warning and Response Network system (EWARNs), but this information appears to have last been updated in December 2016. [2]

There is no other evidence of de-identified health surveillance data available through the Ministry of Agriculture, Central Public Health Laboratory, or the Centre for Disease Control. [3, 4, 5] Therefore, there is no publicly available information that shows that Iraq makes de-identified health surveillance data on disease outbreaks publicly available via reports on the Ministry of Health website or other public websites.

[1] Iraqi Ministry of Health. Centre for Disease Control. [[http://www.phd.iq/CMS.php?CMS\\_P=260](http://www.phd.iq/CMS.php?CMS_P=260)]. Accessed 22 January 2021.

[2] World Health Organisation (WHO). "Iraq: Early warning and response network bulletins 2016". [<http://www.emro.who.int/irq/ewarns/index.html>]. Accessed 22 January 2021.

[3] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 22 January 2021.

[4] Iraqi Ministry of Agriculture. [<http://www.zeraa.gov.iq/>]. Accessed 22 January 2021.

[5] Iraqi Ministry of Health. Public Health Directorate. "A brief description of the Central [Public] Health Laboratory". [[http://phd.iq/CMS.php?CMS\\_P=173](http://phd.iq/CMS.php?CMS_P=173)]. Accessed 22 January 2021.

[6] Iraqi Ministry of Health. Public Health Directorate. "Centre for Disease Control". [[http://www.phd.iq/CMS.php?CMS\\_P=260](http://www.phd.iq/CMS.php?CMS_P=260)]. Accessed 22 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**

Iraq does make de-identified COVID-19 surveillance data (including details such as daily case count, mortality rate, etc) available via daily reports (or other formats). The Iraqi Ministry of Health publishes daily updates only on Facebook regarding Covid-19 statistics, including daily new cases, number of people who have recovered, number of deaths, and number of Covid-19 tests performed both on a daily and on a cumulative basis. [1] No additional information or statistics are provided on the websites of the Ministry of Health, Ministry of the Environment, Ministry of Agriculture, Public Health Directorate. [2, 3, 4, 5]

[1] Ministry of Health. Facebook Page. January 23, 2021.

[<https://www.facebook.com/MOH.GOV.IQ/photos/a.860171854037214/3683175965070108/>]. Accessed 23 January 2021.

[2] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 23 January 2021.

[3] Iraqi Ministry of Agriculture. [<http://www.zeraa.gov.iq/>]. Accessed 23 January 2021.

[4] Iraqi Ministry of the Environment. [<http://www.moen.gov.iq/>]. Accessed 22 January 2021.

[5] Iraqi Ministry of Health. Public Health Directorate. [<http://phd.iq/index.php>]. Accessed 23 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: 0**

Iraq does not have legislation and/or regulations that safeguard the confidentiality of identifiable health information for individuals, such as that generated through health surveillance activities.

The Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, does not mention anything about health record information "privacy" or "confidentiality". [1] According to DataGuidance (April 2020), "there is no specific healthcare-related data protection law in Iraq". [2] According to The Food and Agriculture Organization of the United Nations (FAO), Iraq's "Public Health Law No. 89 of 1981" aims at "providing for the enjoyment of citizens' rights to full physical, mental and social fitness. It states that health is a right for each citizen and the responsibility of the State to provide all means to promote health prevent and treat diseases. Main functions of the Ministry of Health are: establish and manage health facilities; control communicable diseases; provide school health, maternal, family and child health care and services". [3] However, the Law does not bring any reference to "privacy", "data confidentiality", or offenses related to

misuse or abuse of personal health data. [3]

The websites of the Ministry of Health and the Public Health Directorate do not provide information that shows that Iraq has legislation and/or regulations that safeguard the confidentiality of identifiable health information for individuals, such as that generated through health surveillance activities. [4, 5]

[1] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 23 January 2021.

[2] Ali AL Dabbagh. "Iraq - Data Protection Overview". April 2020. DataGuidance. [<https://www.dataguidance.com/notes/iraq-data-protection-overview>]. Accessed 23 January 2021.

[3] FAO. "Public Health Law No. 89 of 1981". [<https://www.informea.org/en/legislation/public-health-law-no-89-1981>]. Accessed 23 January 2021.

[4] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 23 January 2021.

[5] Iraqi Ministry of Health. Public Health Directorate. [<http://phd.iq/index.php>]. Accessed 23 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: 0**

Iraq does not have 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 Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, does not mention anything about health record information "privacy" or "confidentiality" or "cyber attacks". [1] According to DataGuidance (April 2020), "there is no specific healthcare-related data protection law in Iraq". [2] According to The Food and Agriculture Organization of the United Nations (FAO), Iraq's "Public Health Law No. 89 of 1981" aims at "providing for the enjoyment of citizens' rights to full physical, mental and social fitness. It states that health is a right for each citizen and the responsibility of the State to provide all means to promote health prevent and treat diseases. Main functions of the Ministry of Health are: establish and manage health facilities; control communicable diseases; provide school health, maternal, family and child health care and services". [3] However, the Law does not bring any reference to "privacy", "data confidentiality", "cyber attack", or offenses related to misuse or abuse of personal electronically-stored health data. [3]

The websites of the Ministry of Health and the Public Health Directorate do not provide information that shows that Iraq 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). [4, 5] A further online search did not provide additional information in this regard.

[1] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 23 January 2021.

[2] Ali AL Dabbagh. "Iraq - Data Protection Overview". April 2020. DataGuidance.

[<https://www.dataguidance.com/notes/iraq-data-protection-overview>]. Accessed 23 January 2021.

[3] FAO. "Public Health Law No. 89 of 1981". [<https://www.informe.org/en/legislation/public-health-law-no-89-1981>]. Accessed 23 January 2021.

[4] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 23 January 2021.

[5] Iraqi Ministry of Health. Public Health Directorate. [<http://phd.iq/index.php>]. Accessed 23 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 is no publicly available information that shows that Iraq made a commitment via public statements, legislation and/or a cooperative agreement to share surveillance data during a public health emergency with other countries in the region for one or more diseases.

The Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, mentions that "endemic diseases are not commonly reported when they reach to an outbreak level. The International Health Regulation (IHR) National Focal Point is part of a common diseases committee that conducts regular meetings to share information on how to respond to any outbreak, notification to WHO is usually not part of the discussion". The JEE adds that "although a broad understanding among the human resources (HR) sectors that early notification of public health events ensures early response and thereby prevents disease spread affecting national and global health security, coordination and information sharing are more present in times of emergency than in the day to day activities". However, it does not provide evidence that Iraq has made a commitment via public statements, legislation and/or a cooperative agreement to share surveillance data during a public health emergency with other countries in the region. [1]

Additionally, the website of the Ministry of Health does not provide information that shows that the government has made a commitment via public statements, legislation, and/or a cooperative agreement to share surveillance data during a public health emergency with other countries in the region. [2] The Public Health Directorate does not provide additional information in this regard. [3] Iraq participates in the largest laboratory network in the Middle East (PulseNet); however, a search did not yield results that show that Iraq made a commitment via public statements, legislation and/or a cooperative agreement to share surveillance data during a public health emergency with other countries in the region [4].

[1] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 25 January 2021.

[2] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 25 January 2021.

[3] Iraqi Ministry of Health. Public Health Directorate. [<http://phd.iq/index.php>]. Accessed 25 January 2021.

[4] PulseNet Middle East. "Member Countries". [<http://www.pulsenetinternational.org/networks/middleeast/>]. Accessed 25 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 no publicly available information that shows that Iraq has a national system in place to provide support at the sub-national level (e.g. training, metrics standardization and/or financial resources) to conduct contact tracing in the event of an active or future public health emergency.

The Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, mentions that "Iraq has capacity in relation to management of communicable disease and reports that the relevant provisions in the Public Health Law 1981 were successfully used by the Ministry of Health (MoH) to address pandemic influenza in 2009. It provided power to take necessary steps such as the closure of schools. Despite this, the provisions to manage communicable diseases are weak and in need of updating". The JEE adds that "Iraq needs a financing mechanism with available funds for the timely response to public health emergencies". [1]

The JEE also mentions that "at the national level Iraq has formally established its National Medical Operations Centre (NMOC) that serves as the national Public Health Emergency Operations Centre (PHEOC), and is creating a health emergency management program within the Ministry of Health (MoH)". It adds that "the country has sufficient multisectoral Human Resource (HR) capacities at the national level to deal with epidemic preparedness and control, which is not the case when it comes to subnational country administrative levels". Along with the fact that there is no mention of contact tracing, therefore, there is no evidence that shows that Iraq has a national system in place to provide support at the sub-national level (e.g. training, metrics standardization, and/or financial resources) to conduct contact tracing in the event of a public health emergency. [1]

The website of the Ministry of Health does not provide information that shows that the government has a national system in place to provide support at the sub-national level (e.g. training, metrics standardization and/or financial resources) to conduct contact tracing in the event of a public health emergency [2].

The website of the Public Health Directorate does not provide information that shows that the government has a national system in place to provide support at the sub-national level (e.g. training, metrics standardization and/or financial resources) to conduct contact tracing in the event of a public health emergency [3].

[1] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 25 January 2021.

[2] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 25 January 2021.

[3] Iraqi Ministry of Health. Public Health Directorate. [<http://phd.iq/index.php>]. Accessed 25 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 no publicly available evidence that Iraq provides wraparound services to enable infected people and their contacts to self-isolate or quarantine as recommended, particularly economic support (paycheck, job security) and medical attention. The country's Covid-19 response does not provide evidence of a pre-existing plan to 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.

Iraq's experience with the Covid-19 pandemic is telling of its current state of fragility and lack of resources to appropriately deal with public health emergencies. According to an article by the Middle East Institute in 2020, "Since COVID-19 struck Iraq, the country's depleted force of frontline healthcare workers has been under immense pressure. Hospital wards have become breeding grounds for infections, placing physicians and staff at great personal risk. Healthcare practitioners have been assaulted by angry family members of patients suffering from or who have succumbed to the virus. In a video address to the United Nations General Assembly on September 23, President Barham Salih appealed for assistance in dealing with the mounting violence towards the medical community". Therefore, there is no evidence that Iraq is providing 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. [1]

The Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, does not provide additional information in this regard. [2] Nor do the websites of the Ministry of Health and the Public Health Directorate. [3, 4]

Upon conducting an online search at the Iraq News Agency, the BBC, and CNN, there is no publicly available evidence that shows that Iraq provides wraparound services to enable infected people and their contacts to self-isolate or quarantine as recommended, particularly economic support (paycheck, job security) and medical attention. [5, 6, 7]

[1] John Calabrese. "Iraq's Fragile State in the Time of Covid-19". December 8, 2020.

[<https://www.mei.edu/publications/iraqs-fragile-state-time-covid-19>]. Accessed 25 January 2021.

[2] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 25 January 2021.

[3] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 25 January 2021.

[4] Iraqi Ministry of Health. Public Health Directorate. [<http://phd.iq/index.php>]. Accessed 25 January 2021.

[5] Iraqi News Agency. "Search Results". [<https://www.ina.iq/eng/search>]. Accessed 25 January 2021.

[6] BBC. "Search Results- Iraq". [<https://www.bbc.co.uk/news/topics/cvenzmgyljrt/iraq>]. Accessed 25 January 2021.

[7] CNN. "Search Results- Iraq". [<https://edition.cnn.com/search?q=iraq&size=10&category=us,politics,world,opinion,health>]. Accessed 25 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**

Iraq does not 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.

Iraq only makes de-identified COVID-19 surveillance data (including details such as daily case count, mortality rate, etc) available via daily reports (or other formats). The Iraqi Ministry of Health publishes daily updates only on Facebook regarding Covid-19 statistics, including daily new cases, number of people who have recovered, number of deaths, and number of Covid-19 tests performed both on a daily and on a cumulative basis. [1] No additional information or statistics are provided on the websites of the Ministry of Health, Ministry of the Environment, Ministry of Agriculture, Public Health Directorate. [2, 3, 4, 5]

[1] Ministry of Health. Facebook Page. January 23, 2021.

[https://www.facebook.com/MOH.GOV.IQ/photos/a.860171854037214/3683175965070108/]. Accessed 25 January 2021.

[2] Iraqi Ministry of Health. [https://moh.gov.iq/]. Accessed 25 January 2021.

[3] Iraqi Ministry of Agriculture. [http://www.zeraa.gov.iq/]. Accessed 25 January 2021.

[4] Iraqi Ministry of the Environment. [http://www.moen.gov.iq/]. Accessed 25 January 2021.

[5] Iraqi Ministry of Health. Public Health Directorate. [http://phd.iq/index.php]. Accessed 25 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 no publicly available evidence that shows that Iraq has a joint plan or cooperative agreement between the public health system and border control authorities to identify suspected and potential cases in international travelers and trace and quarantine their contacts in the event of an active or future public health emergency.

The Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, "routine services are provided at the three designated Points of Entry (PoEs). Staff and equipment are available to provide the required services. Such services include: Medical services, available for the initial assessment and care of ill passengers and staff; diagnostic facilities (not physically located at the PoE but access to them inside the country is granted); ambulance services are either physically available or available on call for the transport of ill passengers to medical facilities; regular water supplies and food samples (from eating establishments and catering facilities) collection and testing. Interview rooms for suspected cases of infectious diseases are also available at the designated PoE. Ministry of Health (MoH) shares the Epidemiological weekly report with PoEs and follow up is ongoing with the PoE focal points. Animal and agriculture

surveillance are functional at PoEs. More than 22 sectors from different ministries are present at PoEs, and are part of the animal and agriculture surveillance". [1] The JEE adds that "the designated PoEs have a public health contingency plan for preparedness and response to public health emergencies, which is an integral part of the provincial public health emergency preparedness and response plan". Further, as an area that needs strengthening, the JEE mentions that "capacity to apply public health measures that may be recommended by the WHO (e.g. such as exit/entry screening, isolation, quarantine, contact tracing) to prepare and respond to public health events of national and international concern". [1] However, the report does not provide proof that Iraq has a joint plan or cooperative agreement between the public health system and border control authorities to identify suspected and potential cases in international travelers and trace and quarantine their contacts in the event of a public health emergency.

The websites of the Ministry of Health and the Public Health Directorate do not provide evidence that shows that Iraq has a joint plan or cooperative agreement between the public health system and border control authorities to identify suspected and potential cases in international travelers and trace and quarantine their contacts in the event of a public health emergency. [2, 3]

[1] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 25 January 2021.

[2] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 25 January 2021.

[3] Iraqi Ministry of Health. Public Health Directorate. [<http://phd.iq/index.php>]. Accessed 25 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: 1**

There is publicly available information that shows that Iraq has an Applied epidemiology training program; however, there is no evidence that the government sends citizens to another country to participate in applied epidemiology training programs (such as FETP).

The Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, mentions that "the country has been sustaining a national FETP programme since 2010, as a part of the Regional FETP Network, coordinated and supported by EMPHNET. FETP Iraq has been getting strong technical support from the Faculty of Medicine, Baghdad as well as the relevant technical departments from Ministry of Health (MoH). However, only 52 epidemiologists have graduated in the past years. The main reason has been the low awareness from national public health HR development decision-makers, resulting in a low attraction and interest from public health officers (mainly due to lack of incentives)". [1]

The JEE report adds that "recently, the country added a second layer to the FETP through implementation of a three-month Public Health Empowerment Programme (PHEP), supported by EMPHNET, and that has provided field epidemiology training to 75 local level surveillance officers in priority areas in the country. The country has plans to add an intermediate level training in September 2019, to meet the needs of other public health officers from various health-related disciplines (such as veterinarians, dentists, pharmacists and graduates of the health technology colleges) working in the public health programmes at the central and governorate levels with the support of the Defence Threat Reduction Agency (DTRA) and EMPHNET, while sustaining the existing advanced and PHEP layers". [1] The Eastern Mediterranean Public Health Network (EMPHNET) website states that Iraq is on the list of countries in the region that have an FETP program. [2] The websites of the Ministry of Health and the Public Health Directorate do not provide additional information in this regard. [3, 4]

[1] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 25 January 2021.

[2] The Eastern Mediterranean Public Health Network (EMPHNET). "Country Programs". [<http://emphnet.net/en/the-center-of-excellence-for-applied-epidemiology/field-epidemiology-training-programs/country-profiles/fetp-iraq/>]. Accessed 25 January 2021.

[3] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 25 January 2021.

[4] Iraqi Ministry of Health. Public Health Directorate. [<http://phd.iq/index.php>]. Accessed 25 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 insufficient publicly available information that shows that Iraq has a field epidemiology training program that is explicitly inclusive of animal health professionals.

The Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, mentions that "the country has been sustaining a national FETP programme since 2010, as a part of the Regional FETP Network, coordinated and supported by EMPHNET. FETP Iraq has been getting strong technical support from the Faculty of Medicine, Baghdad as well as the relevant technical departments from MoH. However, only 52 epidemiologists have graduated in the past years. The main reason has been the low awareness from national public health HR development decision-makers, resulting in a low attraction and interest from public health officers (mainly due to lack of incentives)". [1]

The JEE report adds that "recently, the country added a second layer to the FETP through implementation of a three-month Public Health Empowerment Programme (PHEP), supported by EMPHNET, and that has provided field epidemiology training to 75 local level surveillance officers in priority areas in the country. The country has plans to add an intermediate level training in September 2019, to meet the needs of other public health officers from various health-related disciplines (such as veterinarians, dentists, pharmacists and graduates of the health technology colleges) working in the public health programmes at the central and governorate levels with the support of the Defence Threat Reduction Agency (DTRA) and EMPHNET, while sustaining the existing advanced and PHEP layers". [1]

The EMPHNET website features Iraq's FETP intermediate and advanced programs but did not provide enough information to

conclude that the FETP program includes animal health professionals. There is a link to the program's official page on the website of the Ministry of Health (MOH), but the link lands on the home page, and searching through the MOH website does not show any trace of an FETP program page. [2, 3] The Eastern Mediterranean Public Health Network (EMPHNET) website states that Iraq is on the list of countries in the region that have an FETP program. [4] The websites of the Ministry of Health and the Public Health Directorate do not provide additional information in this regard. [5, 6]

There is no other evidence of a field epidemiology training programme through the Ministry of Health, the Ministry of Agriculture, the Central Public Health Laboratory, or the Centre for Disease Control. [7, 8, 9, 10]

[1] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 26 January 2021.

[2] Training Programs in Epidemiology and Public Health Interventions Network (TEPHINET). "Iraq Field Epidemiology Training Program (FETP) Prepares to Launch an Intermediate Level". 2019. [<https://www.tephinet.org/iraq-field-epidemiology-training-program-fetp-prepares-to-launch-an-intermediate-level>]. Accessed 26 January 2021.

[3] Training Programs in Epidemiology and Public Health Interventions Network (TEPHINET). "Iraq Field Epidemiology Training Program". [<https://www.tephinet.org/training-programs/iraq-field-epidemiology-training-program>]. Accessed 26 January 2021.

[4] The Eastern Mediterranean Public Health Network (EMPHNET). "Country Programs". [<http://emphnet.net/en/the-center-of-excellence-for-applied-epidemiology/field-epidemiology-training-programs/country-profiles/fetp-iraq/>]. Accessed 26 January 2021.

[5] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 26 January 2021.

[6] Iraqi Ministry of Health. Public Health Directorate. [<http://phd.iq/index.php>]. Accessed 26 January 2021.

[7] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 26 January 2021.

[8] Iraqi Ministry of Agriculture. [<http://www.zeraa.gov.iq/>]. Accessed 26 January 2021.

[9] Iraqi Ministry of Health. Public Health Directorate. "A brief description of the Central [Public] Health Laboratory". [[http://phd.iq/CMS.php?CMS\\_P=173](http://phd.iq/CMS.php?CMS_P=173)]. Accessed 26 January 2021.

[10] Iraqi Ministry of Health. Public Health Directorate. "Centre for Disease Control". [[http://www.phd.iq/CMS.php?CMS\\_P=260](http://www.phd.iq/CMS.php?CMS_P=260)]. Accessed 26 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: 1**

There is no publicly available information that shows that Iraq has an overarching national public health emergency response plan in place which addresses planning for multiple communicable diseases with epidemic or pandemic potential; rather, there is evidence of disease specific national action plans.

The Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, mentions that Iraq has "disease-specific national action plans: cholera, influenza, haemorrhagic fever". In the "Supporting documentation provided by host country" section of Appendix 1 of the JEE report, the report mentions having accessed disease-specific national action plans for cholera, influenza, and haemorrhagic fever. However, copies of the national response plans are not available publicly online. [1] The websites of the Ministry of Health and the Public Health Directorate do not provide additional information in this regard. [2, 3]

As an additional background on Iraq's emergency preparedness, the JEE report mentions that "National disaster management is legislated through the Emergency Use Law (1961 - provision for responding to disasters), Civil Defence Law (1978 - that delegates responsibilities for response to emergency situations), Social Care Law (1980 - for assistance and support to victims of a disaster), Public Health Law (1981 - that outlines the functions and roles to be performed in the event of an epidemic), the Constitution of Iraq (2003 - for certain disaster-related responsibilities to the federal government), Financial Management Law (2004- finance for a contingency reserve fund to respond to disasters), Province Law (2008 - that provides a disaster administrative framework for governorates) and the Environmental Protection Act (2009 - for the formulation of the National Plan for Disaster Risk Reduction). The National Committee for Disaster Risk Reduction is developing a National Disaster Risk Reduction Law (DRR Law 2013)". [1]

The JEE adds that "Iraq has been exposed to exceptional challenges and damage to infrastructure and its health system over the past couple of decades and has conducted a few risk assessments across the various sectors, but has not conducted a comprehensive multi-hazard risk assessment with the associated resources mapping across the whole country. Effective planning continues to be constrained by insecurity in some parts of the country". [1]

[1] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 26 January 2021.

[2] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 26 January 2021.

[3] Iraqi Ministry of Health. Public Health Directorate. [<http://phd.iq/index.php>]. Accessed 26 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 information that shows that Iraq has an overarching national public health emergency response plan in place which addresses planning for multiple communicable diseases with epidemic or pandemic potential; rather, there is evidence of disease specific national action plans.

The Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, mentions that Iraq has "disease specific national action plans: cholera, influenza, haemorrhagic fever". In the "Supporting documentation provided by host country" section of Appendix 1 of the JEE report, the report mentions having accessed disease specific national action plans for cholera, influenza, and haemorrhagic fever. However, the copies of the national response plans are not available publicly online. [1] The websites of the Ministry of Health and the Public Health Directorate do not provide additional information in this regard. [2, 3]

As an additional background on Iraq's emergency preparedness, the JEE report mentions that "National disaster management is legislated through the Emergency Use Law (1961 - provision for responding to disasters), Civil Defence Law (1978 - that delegates responsibilities for response to emergency situations), Social Care Law (1980 - for assistance and support to victims of a disaster), Public Health Law (1981 - that outlines the functions and roles to be performed in the event of an epidemic), the Constitution of Iraq (2003 - for certain disaster-related responsibilities to the federal government), Financial Management Law (2004- finance for a contingency reserve fund to respond to disasters), Province Law (2008 - that provides a disaster administrative framework for governorates) and the Environmental Protection Act (2009 - for the formulation of the National Plan for disaster Risk Reduction). The National Committee for Disaster Risk Reduction is developing a National Disaster Risk Reduction Law (DRR Law 2013)". [1]

The JEE adds that "Iraq has been exposed to exceptional challenges and damage to infrastructure and its health system over the past couple of decades and has conducted a few risk assessments across the various sectors, but has not conducted a comprehensive multi-hazard risk assessment with the associated resources mapping across the whole country. Effective planning continues to be constrained by insecurity in some parts of the country". [1]

[1] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 26 January 2021.

[2] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 26 January 2021.

[3] Iraqi Ministry of Health. Public Health Directorate. [<http://phd.iq/index.php>]. Accessed 26 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**

There is no publicly available information that shows that Iraq has an overarching national public health emergency response plan in place which addresses planning for multiple communicable diseases with epidemic or pandemic potential; rather, there is evidence of disease specific national action plans. The Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, mentions that Iraq has "disease specific national action plans: cholera, influenza, haemorrhagic fever". In the "Supporting documentation provided by host country" section of Appendix 1 of the JEE report, the report mentions having accessed disease specific national action plans for cholera, influenza, and haemorrhagic fever. However, the copies of the national response plans are not available publicly online. [1] The websites of the Ministry of Health and the Public Health Directorate do not provide additional information in this regard. [2, 3]

As an additional background on Iraq's emergency preparedness, the JEE report mentions that "National disaster management is legislated through the Emergency Use Law (1961 - provision for responding to disasters), Civil Defence Law (1978 - that delegates responsibilities for response to emergency situations), Social Care Law (1980 - for assistance and support to victims of a disaster), Public Health Law (1981 - that outlines the functions and roles to be performed in the event of an epidemic), the Constitution of Iraq (2003 - for certain disaster-related responsibilities to the federal government), Financial Management Law (2004- finance for a contingency reserve fund to respond to disasters), Province Law (2008 - that provides a disaster administrative framework for governorates) and the Environmental Protection Act (2009 - for the formulation of the National Plan for disaster Risk Reduction). The National Committee for Disaster Risk Reduction is developing a National Disaster Risk Reduction Law (DRR Law 2013)". [1] The JEE adds that "Iraq has been exposed to exceptional challenges and damage to infrastructure and its health system over the past couple of decades and has conducted a few risk assessments across the various sectors, but has not conducted a comprehensive multi-hazard risk assessment with the associated resources mapping across the whole country. Effective planning continues to be constrained by insecurity in some parts of the country". [1]

[1] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 26 January 2021.

[2] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 26 January 2021.

[3] Iraqi Ministry of Health. Public Health Directorate. [<http://phd.iq/index.php>]. Accessed 26 January 2021.

### 3.1.1d

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

Yes = 1 , No = 0

**Current Year Score: 0**

2020

WHO Strategic Partnership for IHR and Health Security (SPH)

## 3.1.2 Private sector involvement in response planning

### 3.1.2a

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

Yes = 1 , No = 0

**Current Year Score: 0**

There is no publicly available information that shows that Iraq has a specific mechanism(s) for engaging with the private sector to assist with outbreak emergency preparedness and response.

The Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, does not bring reference to a specific mechanism(s) for engaging with the private sector to assist with outbreak emergency preparedness and response. [1] Nor do the websites of the Ministry of Health and the Public Health Directorate provide additional information that shows that Iraq has a specific mechanism(s) for engaging with the private sector to assist with outbreak emergency preparedness and response. [2, 3]

Iraq's "National Health Policy 2014-2023" does outline the Ministry of Health's policy objectives for the future, with one of 6 objectives being to "foster closer collaboration and partnership between the health sector and communities, other sectors and private providers". The document does mention specifics about advancing the involvement of the private sector as well as regulating this increased engagement on pages 36 and 39; however, there is no evidence of a specific mechanism(s) for engaging with the private sector to assist with outbreak emergency preparedness and response. [4]

[1] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 26 January 2021.

[2] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 26 January 2021.

[3] Iraqi Ministry of Health. Public Health Directorate. [<http://phd.iq/index.php>]. Accessed 26 January 2021.

[4] Ministry of Health. "National Health Policy 2014-2023". 2014.

[[https://extranet.who.int/countryplanningcycles/sites/default/files/planning\\_cycle\\_repository/iraq/iraqs\\_national\\_health\\_policy\\_2014-2023.pdf](https://extranet.who.int/countryplanningcycles/sites/default/files/planning_cycle_repository/iraq/iraqs_national_health_policy_2014-2023.pdf)]. Accessed 26 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: 0**

There is no publicly available information that shows that Iraq has a policy, plan and/or guidelines in place to implement non-pharmaceutical interventions (NPIs) during an epidemic or pandemic for one or more diseases.

The Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, does not bring reference to any policy, plan and/or guidelines in place to implement non-pharmaceutical interventions (NPIs) during an epidemic or pandemic. [1] Nor do the websites of the Ministry of Health and the Public Health Directorate provide information that shows that Iraq has a policy, plan and/or guidelines in place to implement non-pharmaceutical interventions (NPIs) during an epidemic or pandemic. [2, 3]

[1] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61->

eng.pdf?sequence=1]. Accessed 26 January 2021.

[2] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 26 January 2021.

[3] Iraqi Ministry of Health. Public Health Directorate. [<http://phd.iq/index.php>]. Accessed 26 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 no publicly available information that shows that Iraq has activated their national emergency response plan for an infectious disease outbreak in the past year; additionally, there is no publicly available information that shows that Iraq has completed a national-level biological threat-focused exercise (either with WHO or separately) in the past year.

The Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, mentions that "the National Plan for Disaster Risk Reduction (outline risk mitigation, preparedness and response planning) and the National Strategy for Disaster Risk Reduction (outline the functions and duties of government authorities in risk assessment and management) are plans that give effect to the DDR law (2013) that is currently still in draft form. Specific disaster response plans that cover natural disaster, fire, explosion, security oil spills and other relevant plans have been developed by responsible national authorities". However, it does not provide information that shows that Iraq has a national emergency response plan, nor a national response plan that was activated for an infectious disease outbreak in the past year.

Additionally, the JEE mentions that "a variety of exercises has been conducted over the past few years, largely Chemical Biological Radiological Nuclear (CBRN) functional exercises. These have included: Basra mass casualty functional exercise; chemical incident exercise; and a gas leak exercise in Baghdad, during which the national chemical response team and ambulance team practised the partial evacuation of 5000 people, including transporting affected people to a hospital". However, it does not provide information that shows that Iraq has completed a national-level biological threat-focused exercise (either with WHO or separately) in the past year. [1]

The website of the WHO Simulation Exercise does not provide information indicating that in the past year, Iraq had undergone a national-level biological threat-focused exercise (either with WHO or separately). [2]

In light of the Covid-19 pandemic, there is no evidence that Iraq's response was based on a previously-prepared national emergency plan. The websites of the Ministry of Health and the Public Health Directorate do not provide any additional information to suggest a national response plan was activated. [3, 4] Both the World Health Organization (WHO) Iraq country page, as well as the Regional Office for the Eastern Mediterranean (EMRO) do not provide any additional information in this regard. [5,6]

- [1] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 26 January 2021.
- [2] World Health Organisation (WHO). "Simulation Exercise". [<https://extranet.who.int/sph/simulation-exercise?region=All&country=280>]. Accessed 26 January 2021.
- [3] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 26 January 2021.
- [4] Iraqi Ministry of Health. Public Health Directorate. [<http://phd.iq/index.php>]. Accessed 26 January 2021.
- [5] World Health Organisation (WHO) Iraq Country Page. [<http://www.emro.who.int/irq/iraq-news/>]. Accessed 26 January 2021.
- [6] World Health Organisation (WHO) Regional Office for the Eastern Mediterranean. [<http://www.emro.who.int/index.html>]. Accessed 26 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 no publicly available evidence that Iraq has undergone an exercise to identify a list of gaps and best practices through an after action review or a biological threat-focused international health regulations (IHR) exercise with the World Health Organisation (WHO) within the past year.

The Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, does not reveal any information that shows that Iraq 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. [1]

The Ministry of Health (MOH), on its website, does not reveal any information that shows that Iraq 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. [2]

Iraq's "National Health Policy 2014-2023" provides insight into the Ministry of Health's future objectives, however, it does not provide evidence that Iraq has undergone an exercise to identify a list of gaps and best practices through an after-action review or a biological threat-focused international health regulations (IHR) exercise with the World Health Organisation (WHO) within the past year. [3]

According to the WHO IHR Portal, there is no evidence of an after-action review that has taken place. [4] There is no other evidence of an after-action review or IHR review being conducted in Iraq within the past year through the Ministry of Health, Ministry of Agriculture, the Central Public Health Laboratory, the Centre for Disease Control, or the WHO country and regional pages for Iraq. [5, 6, 7, 8, 9, 10]

- [1] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 27 January 2021.

- [2] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 27 January 2021.
- [3] Ministry of Health. "National Health Policy 2014-2023". 2014. [[https://extranet.who.int/countryplanningcycles/sites/default/files/planning\\_cycle\\_repository/iraq/iraqs\\_national\\_health\\_policy\\_2014-2023.pdf](https://extranet.who.int/countryplanningcycles/sites/default/files/planning_cycle_repository/iraq/iraqs_national_health_policy_2014-2023.pdf)]. Accessed 26 January 2021.
- [4] World Health Organisation (WHO). Strategic Partnership for International Health Regulations (2005) and Health Security (SPH). "After Action Review". [<https://extranet.who.int/sph/after-action-review>]. Accessed 27 January 2021.
- [5] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 27 January 2021.
- [6] Iraqi Ministry of Agriculture. [<http://www.zeraa.gov.iq/>]. Accessed 27 January 2021.
- [7] Iraqi Ministry of Health. Public Health Directorate. "A brief description of the Central [Public] Health Laboratory". [[http://phd.iq/CMS.php?CMS\\_P=173](http://phd.iq/CMS.php?CMS_P=173)]. Accessed 27 January 2021.
- [8] Iraqi Ministry of Health. Public Health Directorate. "Centre for Disease Control". [[http://www.phd.iq/CMS.php?CMS\\_P=260](http://www.phd.iq/CMS.php?CMS_P=260)]. Accessed 27 January 2021.
- [9] World Health Organisation (WHO). Country Office. "Iraq". [<http://www.emro.who.int/countries/irq/index.html>]. Accessed 27 January 2021.
- [10] World Health Organisation (WHO) Regional Office for the Eastern Mediterranean. [<http://www.emro.who.int/index.html>]. Accessed 26 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 no publicly available information that shows that Iraq in the past year has undergone a national-level biological threat-focused exercise that has included private sector representatives.

According to the Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, "at the national level Iraq has formally established its National Medical Operations Centre (NMOC) that serves as the national Public Health Emergency Operation Center (PHEOC), and is creating a health emergency management programme within the Ministry of Health (MoH). The NMOC has a dedicated space for operations within the MoH and is currently upgrading its infrastructure and equipment. The MoH has pursued the development of a number of documents that outline the policies and guidelines for public health emergency management in Iraq. The NMOC also serves as a training center to train both MoH and staff from basic first aid to more specialized training". [1]

The JEE report adds that "a variety of exercises has been conducted over the past few years, largely Chemical Biological Radiological Nuclear (CBRN) functional exercises. These have included: Basra mass casualty functional exercise; chemical incident exercise; and a gas leak exercise in Baghdad, during which the national chemical response team and ambulance team practised the partial evacuation of 5000 people, including transporting affected people to a hospital". However, the JEE report does not reveal any information that shows that Iraq in the past year has undergone a national-level biological threat-focused exercise that has included private sector representatives. [1]

The Ministry of Health (MOH), on its website, does not reveal any information that shows that Iraq in the past year has undergone a national-level biological threat-focused exercise that has included private sector representatives. [2] Iraq's "National Health Policy 2014-2023" provides insight into the Ministry of Health's future objectives, however, it does not

provide evidence that Iraq in the past year has undergone a national-level biological threat-focused exercise that has included private sector representatives. [3] According to the WHO IHR Portal, there is no evidence of an after-action review that has taken place. [4] There is no other evidence of an after-action review or IHR review being conducted in Iraq within the past year through the Ministry of Health, Ministry of Agriculture, the Central Public Health Laboratory, the Centre for Disease Control, or the WHO country and regional page for Iraq. [5, 6, 7, 8, 9, 10] The World Health Organization's Simulation Exercise page mentions that a simulation exercise was last done in Iraq during August 2017. [11]

- [1] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 27 January 2021.
- [2] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 27 January 2021.
- [3] Ministry of Health. "National Health Policy 2014-2023". 2014. [[https://extranet.who.int/countryplanningcycles/sites/default/files/planning\\_cycle\\_repository/iraq/iraqs\\_national\\_health\\_policy\\_2014-2023.pdf](https://extranet.who.int/countryplanningcycles/sites/default/files/planning_cycle_repository/iraq/iraqs_national_health_policy_2014-2023.pdf)]. Accessed 26 January 2021.
- [4] World Health Organisation (WHO). Strategic Partnership for International Health Regulations (2005) and Health Security (SPH). "After Action Review". [<https://extranet.who.int/sph/after-action-review>]. Accessed 27 January 2021.
- [5] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 27 January 2021.
- [6] Iraqi Ministry of Agriculture. [<http://www.zeraa.gov.iq/>]. Accessed 27 January 2021.
- [7] Iraqi Ministry of Health. Public Health Directorate. "A brief description of the Central [Public] Health Laboratory". [[http://phd.iq/CMS.php?CMS\\_P=173](http://phd.iq/CMS.php?CMS_P=173)]. Accessed 27 January 2021.
- [8] Iraqi Ministry of Health. Public Health Directorate. "Centre for Disease Control". [[http://www.phd.iq/CMS.php?CMS\\_P=260](http://www.phd.iq/CMS.php?CMS_P=260)]. Accessed 27 January 2021.
- [9] World Health Organisation (WHO). Country Office. "Iraq". [<http://www.emro.who.int/countries/irq/index.html>]. Accessed 27 January 2021.
- [10] World Health Organisation (WHO) Regional Office for the Eastern Mediterranean. [<http://www.emro.who.int/index.html>]. Accessed 26 January 2021.
- [11] World Health Organisation (WHO). Simulation Exercise. [<https://extranet.who.int/sph/simulation-exercise?region=201&country=280>]. Accessed 27 January 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**

There is publicly available information that shows that Iraq has an Emergency Operations Center (EOC).

According to the Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was conducted in March 2019, "at the national level Iraq has formally established its National Medical Operations Centre (NMOC) that serves as the national Public Health Emergency Operation Center (PHEOC) and is creating a health emergency management program within the Ministry of Health (MoH). The NMOC has a dedicated space for operations within the MoH and is currently upgrading its infrastructure and equipment. The MoH has pursued the development of a number of documents that outline the policies and guidelines for public health emergency management in Iraq. The NMOC also serves as a training center to train both

MoH and staff from basic first aid to more specialized training". [1] The websites of the Ministry of Health and Public Health Directorate do not provide additional information in this regard. [2, 3]

[1] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 27 January 2021.

[2] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 27 January 2021.

[3] Iraqi Ministry of Health. Public Health Directorate. [<http://www.phd.iq/>]. Accessed 27 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**

There is no evidence that shows that the Emergency Operations Center (EOC) in Iraq is required to conduct (or conducts) a drill for a public health emergency scenario.

According to the Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, "at the national level Iraq has formally established its National Medical Operations Centre (NMOC) that serves as the national Public Health Emergency Operation Center (PHEOC), and is creating a health emergency management programme within the Ministry of Health (MoH). The NMOC has a dedicated space for operations within the MoH and is currently upgrading their infrastructure and equipment. The MoH has pursued the development of a number of documents that outline the policies and guidelines for public health emergency management in Iraq. The NMOC also serves as a training center to train both MoH and staff from basic first aid to more specialized training". [1]

The JEE report adds that "a variety of exercises has been conducted over the past few years, largely Chemical Biological Radiological Nuclear (CBRN) functional exercises. These have included: Basra mass casualty functional exercise; chemical incident exercise; and a gas leak exercise in Baghdad, during which the national chemical response team and ambulance team practised the partial evacuation of 5000 people, including transporting affected people to a hospital". However, the report states that there is "no regular exercises program that brings together the various sectors". Therefore, there is no evidence that the EOC is required to conduct (or conducts) a drill for a public health emergency scenario. [1] The websites of the Ministry of Health and Public Health Directorate do not provide additional information in this regard. [2, 3]

[1] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 27 January 2021.

[2] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 27 January 2021.

[3] Iraqi Ministry of Health. Public Health Directorate. [<http://www.phd.iq/>]. Accessed 27 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 no publicly available information that shows 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.

According to the Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, "at the national level Iraq has formally established its National Medical Operations Centre (NMOC) that serves as the national Public Health Emergency Operation Center (PHEOC), and is creating a health emergency management programme within the Ministry of Health (MoH). The NMOC has a dedicated space for operations within the MoH and is currently upgrading their infrastructure and equipment. The MoH has pursued the development of a number of documents that outline the policies and guidelines for public health emergency management in Iraq. The NMOC also serves as a training centre to train both MoH and staff from basic first aid to more specialized training". [1]

The JEE report adds that "a variety of exercises has been conducted over the past few years, largely Chemical Biological Radiological Nuclear (CBRN) functional exercises. These have included: Basra mass casualty functional exercise; chemical incident exercise; and a gas leak exercise in Baghdad, during which the national chemical response team and ambulance team practised the partial evacuation of 5000 people, including transporting affected people to a hospital". However, there is no evidence that shows 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. [1] Note that the JEE gave Iraq a score of '3' on the indicator R.2.2 (which represents the 'Emergency Operations Centre capacities, procedures, and plans'), mainly for having the National Operations Centre (NOC) at cabinet level including all relevant sectors, along with the MoH having an emergency cell linking it with the cabinet level, and for having a physical PHEOC, three rooms (with main operation room) with 25 trained permanent staff [1]

The websites of the Ministry of Health and Public Health Directorate do not provide additional information that shows 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. [2, 3] Nor do the websites of the Centre for Disease Control, the Ministry of Defence, the Ministry of the Interior, or the Joint Coordination and Monitoring Centre. [4, 5, 6, 7]

[1] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 27 January 2021.

[2] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 27 January 2021.

[3] Iraqi Ministry of Health. Public Health Directorate. [<http://www.phd.iq/>]. Accessed 27 January 2021.

[4] Iraqi Ministry of Health. Public Health Directorate. "Centre for Disease Control".

[[http://www.phd.iq/CMS.php?CMS\\_P=260](http://www.phd.iq/CMS.php?CMS_P=260)]. Accessed 27 January 2021.

[5] Iraqi Ministry of Defence. [<https://www.mod.mil.iq/>]. Accessed 27 January 2021.

[6] Iraqi Ministry of the Interior. [<https://moi.gov.iq/>]. Accessed 27 January 2021.

[7] Joint Coordination and Monitoring Centre. [<http://jcmc.gov.iq/?>]. Accessed 27 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 insufficient evidence of 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; however, 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).

According to the Joint External Evaluation (JEE) mission report of the Republic of Iraq (indicator R.3.1), which was conducted in March 2019, "the health and security sectors collaborate to respond to emergencies through a set of control and response measures, as well as through strong collaboration for responding to public health events with neighbouring countries". [1]

It adds that "an infectious diseases general plan is present at the central level, and local plans are developed at governorate level". Additionally, the JEE mentions that "the national laws and plans do define the role and responsibilities of each sector. The national preparedness plan enlists the roles and responsibilities of each sector including the security sectors. In each committee that exists, it is evident that the security sector is well represented and has clear, defined roles". [1]

Neither the World Organization for Animal Health (OIE) nor the Ministry of Health provide any information on their websites in this regard [2, 3].

In October 2018, the Ministry of Agriculture conducted a meeting to discuss rapid response team reactions to biological incidents, including biological terrorism and how to deal with it, but there is no evidence of an exercise taking place. [4]

According to a study from February 2016, one of the Iraqi National Monitoring Authority's major tasks is to strengthen Iraq's preparedness for responding to the use of chemical, biological, chemical, or radiological weapons. [5] However, this organisation does not maintain a public presence, and it does not appear to have standard operating procedures.

There is no additional information regarding an exercise to respond to a potential deliberate biological event or the development of standard operating procedures through the Ministry of Agriculture, Ministry of the Environment, Ministry of Justice, Ministry of Defence, Ministry of the Interior, Parliament of the Republic of Iraq, the Local Iraqi Governance Law Library, or the Joint Coordination and Monitoring Centre. [6, 7, 8, 9, 10, 11, 12, 13]

[1] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61->

eng.pdf?sequence=1]. Accessed 28 January 2021.

[2] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 27 January 2021.

[3] World Organization for Animal Health (OIE). "OIE PVS Evaluation Reports" [<http://www.oie.int/solidarity/pvs-evaluations/pvs-evaluation-reports/>]. Accessed 27 January 2021.

[4] Iraqi Ministry of Agriculture. 7 October 2018. "The veterinary research plan is responding to biological incidents". [<http://www.zeraa.gov.iq/index.php?name=News&file=article&sid=7263>]. Accessed 27 January 2021.

[5] Al Jewari, Mahdi, et al. 26 February 2016. "Strengthening Biosecurity in Iraq: Development of a National Biorisk Management System". [<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4767897/>]. Accessed 27 January 2021.

[6] Iraqi Ministry of Agriculture. [<http://www.zeraa.gov.iq/>]. Accessed 27 January 2021.

[7] Iraqi Ministry of the Environment. [<http://www.moen.gov.iq/>]. Accessed 27 January 2021.

[8] Iraqi Ministry of Justice. [<https://www.moj.gov.iq/>]. Accessed 27 January 2021.

[9] Iraqi Ministry of Defence. [<https://www.mod.mil.iq/>]. Accessed 27 January 2021.

[10] Iraqi Ministry of the Interior. [<https://moi.gov.iq/>]. Accessed 27 January 2021.

[11] Parliament of the Republic of Iraq. [<http://en.parliament.iq/>]. Accessed 27 January 2021.

[12] Iraqi Local Governance Law Library. [<http://www.iraq-lg-law.org/>]. Accessed 27 January 2021.

[13] Joint Coordination and Monitoring Centre. [<http://jcmc.gov.iq/>]. Accessed 27 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**

There is no publicly available information that shows that Iraq has a 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).

According to the Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, "there are no strategic documents, guidelines, SOPs directly related to risk communication other than a draft national risk communication concept note. Most of the national disease-specific preparedness and response plans (e.g. immunization, maternal, neonatal and child health) do refer to the importance of risk communication and community engagement. However, there is little integration of these two core areas during implementation. Nevertheless, existing plans represent a good foundation for the development of a multisectoral all-hazards national risk communication strategy integrating media and social media communication, social mobilization and community engagement". [1]

Additionally, the websites of the Ministry of Health and Public Health Directorate do not provide additional information that shows that Iraq has a 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). [2, 3]

[1] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 28 January 2021.

[2] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 28 January 2021.

[3] Iraqi Ministry of Health. Public Health Directorate. [<http://www.phd.iq/>]. Accessed 28 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: 0**

There is no evidence that shows that Iraq has in place, either in the national public health emergency response plan or in other legislation, regulation, or strategy documents, a section detailing a risk communication plan that is specifically intended for use during a public health emergency.

According to the Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, "there are no strategic documents, guidelines, SOPs directly related to risk communication other than a draft national risk communication concept note. Most of the national disease-specific preparedness and response plans (e.g. immunization, maternal, neonatal and child health) do refer to the importance of risk communication and community engagement. However, there is little integration of these two core areas during implementation. Nevertheless, existing plans represent a good foundation for the development of a multisectoral all-hazards national risk communication strategy integrating media and social media communication, social mobilization and community engagement". Further, Iraq does not have national multisectoral multi-hazard emergency preparedness measures. [1]

Additionally, the websites of the Ministry of Health and Public Health Directorate do not provide additional information that shows that Iraq has in place, either in the national public health emergency response plan or in other legislation, regulation, or strategy documents, a section detailing a risk communication plan that is specifically intended for use during a public health emergency. [2, 3]

[1] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 28 January 2021.

[2] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 28 January 2021.

[3] Iraqi Ministry of Health. Public Health Directorate. [<http://www.phd.iq/>]. Accessed 28 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 no publicly available information that shows that Iraq's risk communication plan (or other legislation, regulation or strategy document used to guide national public health response) designates a specific position within the government to serve as the primary spokesperson to the public during a public health emergency.

According to the Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, "there are no strategic documents, guidelines, SOPs directly related to risk communication other than a draft national risk communication concept note. Most of the national disease-specific preparedness and response plans (e.g. immunization, maternal, neonatal and child health) do refer to the importance of risk communication and community engagement. However, there is little integration of these two core areas during implementation. Nevertheless, existing plans represent a good foundation for the development of a multisectoral all-hazards national risk communication strategy integrating media and social media communication, social mobilization and community engagement". Further, Iraq does not have national multisectoral multi-hazard emergency preparedness measures. [1] However, the JEE mentions explicitly that "a governmental media cell within the Department of Media and Governmental Communication has been created under the general secretariat of the Council of Ministers to lead and coordinate communications during emergencies. A spokesperson is appointed in each ministry but roles and responsibilities are still not well defined in case of emergency responses. A budget is allocated for communication initiatives but not specifically dedicated to risk communication". Still, this is not sufficient evidence of a plan that designates a specific position within the government to serve as the primary spokesperson to the public during a public health emergency [1]

Additionally, the websites of the Ministry of Health and Public Health Directorate do not provide additional information that shows that Iraq has in place, either in the national public health emergency response plan or in other legislation, regulation, or strategy documents, a section detailing a risk communication plan that is specifically intended for use during a public health emergency. [2, 3]

[1] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 28 January 2021.

[2] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 28 January 2021.

[3] Iraqi Ministry of Health. Public Health Directorate. [<http://www.phd.iq/>]. Accessed 28 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**

There is publicly available evidence that the government of Iraq uses media platforms to inform the public about public health emergencies.

In the context of the Covid-19 pandemic, the Ministry of Health (MOH) is providing updates through its Facebook and Twitter pages, mainly updating the public daily regarding Covid statistics as well as actions and events surrounding the activity of public health officials that tackle public health issues, mostly COVID-related. However, there is no evidence of campaigns combating rumors/misinformation/disinformation, on both MOH pages on Twitter and Facebook. [1, 2]

Additionally, there is no information regarding the government of Iraq using media platforms to adopt campaigns combating rumors/misinformation/disinformation and informing the public through the Ministry of Health, Ministry of Agriculture, Ministry of Justice, Ministry of Defence, the Ministry of the Interior, or the Joint Coordination and Monitoring Centre. [3, 4, 5, 6, 7, 8]

[1] Iraqi Ministry of Health. Facebook Page. [<https://www.facebook.com/MOH.GOV.IQ/>]. Accessed 28 January 2021.

[2] Iraqi Ministry of Health. Twitter Page. [[https://twitter.com/mohealth\\_iraq?lang=en](https://twitter.com/mohealth_iraq?lang=en)]. Accessed 28 January 2021.

[3] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 28 January 2021.

[4] Iraqi Ministry of Agriculture. [<http://www.zeraa.gov.iq/>]. Accessed 28 January 2021.

[5] Iraqi Ministry of Justice. [<https://www.moj.gov.iq/>]. Accessed 28 January 2021.

[6] Iraqi Ministry of Defence. [<https://www.mod.mil.iq/>]. Accessed 28 January 2021.

[7] Iraqi Ministry of the Interior. [<https://moi.gov.iq/>]. Accessed 28 January 2021.

[8] Joint Coordination and Monitoring Centre. [<http://jcmc.gov.iq/>]. Accessed 28 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**

There is no publicly available information that shows that senior leaders (president or ministers) have shared misinformation or disinformation on infectious diseases in the past two years (2019 & 2020).

The Iraqi Ministry of Health's social media platforms- namely its Twitter and Facebook pages- do not provide evidence of senior leaders (president or ministers) sharing misinformation or disinformation on infectious diseases in the past two years. [1, 2] Upon conducting an online search at the Iraq News Agency, the BBC, and CNN, there is no publicly available evidence that shows that Iraqi senior leaders (president or ministers) have shared misinformation or disinformation on infectious diseases in the past two years. [3, 4, 5] Further, the websites of the Ministry of Health and Public Health Directorate do not provide additional information in this regard. [6, 7]

[1] Iraqi Ministry of Health. Facebook Page. [<https://www.facebook.com/MOH.GOV.IQ/>]. Accessed 28 January 2021.

[2] Iraqi Ministry of Health. Twitter Page. [[https://twitter.com/mohealth\\_iraq?lang=en](https://twitter.com/mohealth_iraq?lang=en)]. Accessed 28 January 2021.

[3] Iraqi News Agency. "Search Results". [<https://www.ina.iq/eng/search>]. Accessed 28 January 2021.

[4] BBC. "Search Results- Iraq". [<https://www.bbc.co.uk/news/topics/cvenzmgyljrt/iraq>]. Accessed 28 January 2021.

[5] CNN. "Search Results- Iraq". [<https://edition.cnn.com/search?q=iraq&size=10&category=us,politics,world,opinion,health>]. Accessed 28 January 2021.

[6] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 28 January 2021.

[7] Iraqi Ministry of Health. Public Health Directorate. [<http://www.phd.iq/>]. Accessed 28 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: 49.36

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: 94.88

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: 13.0

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: 16.0

2019

Gallup; Economist Impact calculation

## 3.7 TRADE AND TRAVEL RESTRICTIONS

### 3.7.1 Trade restrictions

#### 3.7.1a

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

Yes = 0, No = 1

**Current Year Score: 1**

There is no publicly available information that shows that Iraq has in the past year issued a restriction, without international/bilateral support, on the export/import of medical goods (e.g. medicines, oxygen, medical supplies, PPE) due to an infectious disease outbreak.

According to Market Access Map, in 2020, Iraq's "Cabinet approved measures to strengthen protection for Iraqi agricultural production and support Iraqi gypsum manufacturers by imposing additional import duties". However, there is no sufficient evidence that Iraq has in the past year issued a restriction, without international/bilateral support, on the export/import of medical goods (e.g. medicines, oxygen, medical supplies, PPE) due to an infectious disease outbreak. [1]

Neither the World Trade Organization (WTO), World Health Organisation's 'Disease Outbreak News', the World Organisation for Animal Health (OIE), the Ministry of Health, nor the Ministry of Agriculture have made any mention of a restriction on the export/import of medical goods (e.g. medicines, oxygen, medical supplies, PPE) due to an infectious disease outbreak in the past year. [2, 3, 4, 5, 6]

[1] Market Access Map. "Covid-19 Temporary Trade Measures". [<https://www.macmap.org/covid19>]. Accessed 29 January 2021.

[2] World Trade Organization. "Covid-19: Measures Affecting Trade in Goods".

[[https://www.wto.org/english/tratop\\_e/covid19\\_e/trade\\_related\\_goods\\_measure\\_e.htm](https://www.wto.org/english/tratop_e/covid19_e/trade_related_goods_measure_e.htm)]. Accessed 29 January 2021.

[3] World Health Organisation (WHO). Disease Outbreak News (DONs). "Emergencies preparedness, response: Iraq".

[<https://www.who.int/csr/don/archive/country/irq/en/>]. Accessed 29 January 2021.

[4] World Organization for Animal Health. "OIE Weekly disease information".

[[https://www.oie.int/wahis\\_2/public/wahid.php/Diseaseinformation/WI](https://www.oie.int/wahis_2/public/wahid.php/Diseaseinformation/WI)]. Accessed 29 January 2021.

[5] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 29 January 2021.

[6] Iraqi Ministry of Agriculture. [<http://www.zeraa.gov.iq/>]. Accessed 29 January 2021.

#### 3.7.1b

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

Yes = 0, No = 1

**Current Year Score: 0**

There is publicly available information that shows that Iraq has in the past year issued a restriction, without international/bilateral support, on the export/import of non-medical goods (e.g. food, textiles, etc) due to an infectious disease outbreak.

According to Market Access Map's "Covid-19 Temporary Trade Measures", in 2020, Iraq's "Cabinet approved measures to strengthen protection for Iraqi agricultural production and support Iraqi gypsum manufacturers by imposing additional import duties". [1]

According to PRNewswire's "Gypsum Market to Record a steady CAGR of 5% during the forecast period, 2020-2030; COVID-19 to Curtail Growth Due to Transport Disruption: Future Market Insights" article, published in September 2020, "the global gypsum market was "impacted by the COVID-19 pandemic due to disruptions in material supply and transport". [2] Therefore, Iraq's restriction is indeed related to Covid-19 gypsum market dynamics.

Neither the World Trade Organization (WTO), World Health Organisation's 'Disease Outbreak News', the World Organisation for Animal Health (OIE), the Ministry of Health, nor the Ministry of Agriculture have made any mention of 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. [3, 4, 5, 6, 7]

[1] Market Access Map. "Covid-19 Temporary Trade Measures". [<https://www.macmap.org/covid19>]. Accessed 29 January 2021.

[2] PRNewswire. September 2020. "Gypsum Market to Record a steady CAGR of 5% during the forecast period, 2020-2030; COVID-19 to Curtail Growth Due to Transport Disruption: Future Market Insights". [<https://www.prnewswire.com/ae/news-releases/gypsum-market-to-record-a-steady-cagr-of-5-during-the-forecast-period-2020-2030-covid-19-to-curtail-growth-due-to-transport-disruption-future-market-insights-844486650.html>]. Accessed 29 January 2021.

[3] World Trade Organization. "Covid-19: Measures Affecting Trade in Goods". [[https://www.wto.org/english/tratop\\_e/covid19\\_e/trade\\_related\\_goods\\_measure\\_e.htm](https://www.wto.org/english/tratop_e/covid19_e/trade_related_goods_measure_e.htm)]. Accessed 29 January 2021.

[4] World Health Organisation (WHO). Disease Outbreak News (DONs). "Emergencies preparedness, response: Iraq". [<https://www.who.int/csr/don/archive/country/irq/en/>]. Accessed 29 January 2021.

[5] World Organization for Animal Health. "OIE Weekly disease information". [[https://www.oie.int/wahis\\_2/public/wahid.php/Diseaseinformation/WI](https://www.oie.int/wahis_2/public/wahid.php/Diseaseinformation/WI)]. Accessed 29 January 2021.

[6] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 29 January 2021.

[7] Iraqi Ministry of Agriculture. [<http://www.zeraa.gov.iq/>]. Accessed 29 January 2021.

## 3.7.2 Travel restrictions

### 3.7.2a

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

Yes = 0, No = 1

**Current Year Score: 0**

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

According to news platform GARDA, Iraq banned French and Spanish travelers from entry to Iraq on March 6, 2020. [1]

According to Xinhuanet, on December 22, 2020, "among the new measures, the council decided to ban travel to Britain, South Africa, Australia, Denmark, the Netherlands, Belgium, Iran, Japan, and any other country that the Iraqi Ministry of Health would recommend". It adds that Iraq "also banned the entry of foreign travelers to Iraq, except for Iraqi citizens, who must be quarantined for 14 days until they undergo PCR tests to prove that they are not infected with the virus". [2]

The website of the Ministry of Foreign Affairs (both the 'Announcements' and 'News Archives' sections) do not provide information in this regard. [3, 4]

Neither the World Health Organisation's 'Disease Outbreak News', the World Organisation for Animal Health (OIE), nor the Ministry of Health have made any mention of Iraq implementing a ban, without international/bilateral support, on travelers arriving from a specific country or countries due to an infectious disease outbreak in the past year. [5, 6, 7]

[1] GARDA. "Iraq: Government extends entry restrictions to France and Spain March 6 /update 8". March 2020. [https://www.who.int/csr/don/archive/country/irq/en/]. Accessed 29 January 2021.

[2] Xinhuanet. "Iraq bans travel to 8 countries as COVID-19 cases reach 586,503". December 22, 2020. [http://www.xinhuanet.com/english/2020-12/22/c\_139611412.html]. Accessed 29 January 2021.

[3] Iraqi Ministry of Foreign Affairs. "Announcements". [https://www.mofa.gov.iq/ministrys-announcements]. Accessed 29 January 2021.

[4] Iraqi Ministry of Foreign Affairs. "News Archives". [https://www.mofa.gov.iq/news-archives]. Accessed 29 January 2021.

[5] World Health Organisation (WHO). Disease Outbreak News (DONs). "Emergencies preparedness, response: Iraq". [https://www.who.int/csr/don/archive/country/irq/en/]. Accessed 29 January 2021.

[6] World Organization for Animal Health. "OIE Weekly disease information".

[https://www.oie.int/wahis\_2/public/wahid.php/Diseaseinformation/WI]. Accessed 29 January 2021.

[7] Iraqi Ministry of Health. [https://moh.gov.iq/]. Accessed 29 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: 70.79

2018

WHO; national sources

#### 4.1.1b

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

Input number

**Current Year Score: 204.48**

2018

WHO; national sources

#### 4.1.1c

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

Yes = 1 , No = 0

**Current Year Score: 0**

There is no publicly available information that shows that Iraq has a health workforce strategy in place to identify fields where there is an insufficient workforce and strategies to address these shortcomings.

Iraq's "National Health Policy 2014-2023" does outline the Ministry of Health's policy objectives for the future with regards to human resources needs and strategies to address these needs, as evidenced by pages 29 and 30 of the document. However, it fails to address specifics [1]

The Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, states that the "Ministry of Health (MoH) directorate of planning and resources development has a multi-year strategy (2018-2022) for human resources. This strategy deals with HR as a package of general practitioner and specialist doctors and aims at securing one physician per 1000 population, with no categorization for specific medical specialties, especially relevant to IHR implementation, such as epidemiologists, veterinarians, and community health workers. The strategy has a general classification for HR that is not based on job description and positions and includes a performance appraisal system. The MoH intends to begin revising the RH development strategy soon, to reflect IHR requirements". [2] The National Development Plan 2018 -2022 document is available online. [3]

The websites of the Ministry of Health and the Public Health Directorate do not provide additional information that shows that Iraq has a health workforce strategy in place to identify fields where there is an insufficient workforce and strategies to address these shortcomings. [4, 5]

[1] Ministry of Health. "National Health Policy 2014-2023". 2014.

[https://extranet.who.int/countryplanningcycles/sites/default/files/planning\_cycle\_repository/iraq/iraqs\_national\_health\_policy\_2014-2023.pdf]. Accessed 29 January 2021.

[2] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1]. Accessed 26 January 2021.

[3] The Ministry of Planning. "National Development Plan 2018 -2022". [[https://www.iraq-jccme.jp/pdf/archives/nationaldevelopmentplan2018\\_2022.pdf](https://www.iraq-jccme.jp/pdf/archives/nationaldevelopmentplan2018_2022.pdf)]. Accessed 29 January 2021.

[4] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 29 January 2021.

[5] Iraqi Ministry of Health. Public Health Directorate. [<http://phd.iq/index.php>]. Accessed 29 January 2021.

## 4.1.2 Facilities capacity

### 4.1.2a

#### Hospital beds per 100,000 people

Input number

**Current Year Score: 132**

2017

WHO/World Bank; national sources

### 4.1.2b

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

Yes = 1 , No = 0

**Current Year Score: 1**

There is sufficient publicly available information that shows that Iraq has 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.

The Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, does not bring reference to any capacity to isolate patients with highly communicable diseases in a biocontainment patient care unit and/or patient isolation room/unit located within the country. [1]

According to an article by UNDP on October 26, 2020, "Coronavirus patients in Karbala can now access safe and reliable healthcare thanks to a new Isolation Ward built in partnership between the Karbala Governorate and the United Nations Development Programme (UNDP) in Iraq". The article adds that "the Ward is one of 14 currently being established across the country by UNDP, nine of which are being funded by USAID, to support the Government of Iraq's efforts to manage COVID-19, including another 20-bed facility in neighboring Najaf which serves approximately 100,000 people. All sites will feature the life-saving medical equipment required to effectively treat COVID-19 patients". The Ward is a 20-bed facility and gives an idea of the scale of the Wards being established.

According to a ReliefWeb article in October 2020, "a 20-bed Isolation Ward designed to handle the most severe COVID-19 patients has been officially opened by the Governor of Dohuk in partnership with the United States Agency for International Development (USAID) and the United Nations Development Programme (UNDP) in Iraq. Constructed by UNDP and funded by USAID, the Isolation Ward sits adjacent to Dohuk's Burns and Plastic Surgery Hospital and will serve a catchment area of 325,000 residents from Duhok, Akre, Semel, Zakho, Shekhan, Amedi, and Bardarash districts. It includes life-saving medical equipment, most of which was also funded by USAID". [3]

According to the World Health Organization (WHO), the WHO, in coordination with Ninewa Directorate of Health, has

"established an isolation unit in Hamam Aleel Field Hospital in Ninewa to treat suspected and confirmed cases of internally displaced COVID-19 patients in Hamam Aleel and surrounding areas. It will also serve to limit COVID-19 transmission in camps for the internally displaced in the governorate". [4] These isolation wards are permanent establishments, and further research yields images of the actual facilities, which tend to be established beside already-existing hospitals and health facilities.

The websites of the Ministry of Health and the Public Health Directorate do not provide additional information that shows that Iraq has 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. [5, 6]

An article by Medecins Sans Frontieres (MSF) mentions that "on 1 April 2020, Médecins Sans Frontières (MSF) began supporting Baghdad's Ibn al-Khatib hospital, one of three designated by the MOH to treat patients with COVID-19 in the city". It adds that similar support is being given to the main facilities in Minewah and Erbil to expand patient isolation capacity. However, Iraq's resources are clearly lacking. [7]

[1] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 29 January 2021.

[2] UNDP. "Combatting COVID-19 In Karbala: Isolation ward opens in Iraq's Holy City". [<https://www.arabstates.undp.org/content/rbas/en/home/presscenter/pressreleases/2020/combating-covid-19-in-karbala--isolation-ward-opens-in-iraqs-ho.html>]. Accessed 29 January 2021.

[3] ReliefWeb. "Newly-constructed COVID-19 Isolation Ward opens in Dohuk". October 2020. [<https://reliefweb.int/report/iraq/newly-constructed-covid-19-isolation-ward-opens-dohuk>]. Accessed 29 January 2021.

[4] WHO. "WHO establishes isolation unit in Hamam Aleel Field Hospital to support the treatment of internally displaced COVID-19 patients". [<http://www.emro.who.int/iraq/iraq-news/who-establishes-isolation-unit-in-hamam-aleel-field-hospital-to-support-the-treatment-of-internally-displaced-covid-19-patients.html>]. Accessed 29 January 2021.

[5] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 29 January 2021.

[6] Iraqi Ministry of Health. Public Health Directorate. [<http://phd.iq/index.php>]. Accessed 29 January 2021.

[7] Medecins Sans Frontieres (MSF). "MSF supports Iraqi hospitals responding to COVID-19". April 2020. [<https://www.msf.org/msf-supports-iraqi-hospitals-responding-covid-19-pandemic>]. Accessed 29 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 sufficient publicly available information that shows that Iraq has demonstrated capacity to expand isolation capacity in response to an infectious disease outbreak in the past two years. There is no evidence that Iraq has developed, updated or tested a plan to expand isolation capacity in response to an infectious disease outbreak in the past two years.

The Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, does not bring reference to any capacity to expand isolation capacity in response to an infectious disease outbreak in the past two years;

additionally, there is no evidence that Iraq has developed, updated or tested a plan to expand isolation capacity in response to an infectious disease outbreak in the past two years. [1]

According to an article by UNDP on October 26, 2020, "Coronavirus patients in Karbala can now access safe and reliable healthcare thanks to a new Isolation Ward built in partnership between the Karbala Governorate and the United Nations Development Programme (UNDP) in Iraq". The article adds that "the Ward is one of 14 currently being established across the country by UNDP, nine of which are being funded by USAID, to support the Government of Iraq's efforts to manage COVID-19, including another 20-bed facility in neighboring Najaf which serves approximately 100,000 people. All sites will feature the life-saving medical equipment required to effectively treat COVID-19 patients". The Ward is a 20-bed facility and gives an idea of the scale of the Wards being established.

According to a ReliefWeb article in October 2020, "a 20-bed Isolation Ward designed to handle the most severe COVID-19 patients has been officially opened by the Governor of Dohuk in partnership with the United States Agency for International Development (USAID) and the United Nations Development Programme (UNDP) in Iraq. Constructed by UNDP and funded by USAID, the Isolation Ward sits adjacent to Dohuk's Burns and Plastic Surgery Hospital and will serve a catchment area of 325,000 residents from Duhok, Akre, Semel, Zakho, Shekhan, Amedi, and Bardarash districts. It includes life-saving medical equipment, most of which was also funded by USAID". [3]

According to the World Health Organization (WHO), the WHO, in coordination with Ninewa Directorate of Health, has "established an isolation unit in Hamam Aleel Field Hospital in Ninewa to treat suspected and confirmed cases of internally displaced COVID-19 patients in Hamam Aleel and surrounding areas. It will also serve to limit COVID-19 transmission in camps for the internally displaced in the governorate". [4] These isolation wards are permanent establishments, and further research yields images of the actual facilities, which tend to be established beside already-existing hospitals and health facilities.

The websites of the Ministry of Health and the Public Health Directorate do not provide additional information that shows that Iraq has demonstrated the capacity to expand isolation capacity in response to an infectious disease outbreak in the past two years; additionally, there is no evidence that Iraq has developed, updated or tested a plan to expand isolation capacity in response to an infectious disease outbreak in the past two years. [5, 6]

An article by Medecins Sans Frontieres (MSF) mentions that "on 1 April 2020, Médecins Sans Frontières (MSF) began supporting Baghdad's Ibn al-Khatib hospital, one of three designated by the MOH to treat patients with COVID-19 in the city". It adds that similar support is being given to the main facilities in Minewah and Erbil to expand patient isolation capacity. However, Iraq's resources are clearly lacking. [7]

[1] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 29 January 2021.

[2] UNDP. "Combatting COVID-19 In Karbala: Isolation ward opens in Iraq's Holy City". [<https://www.arabstates.undp.org/content/rbas/en/home/presscenter/pressreleases/2020/combating-covid-19-in-karbala--isolation-ward-opens-in-iraqs-ho.html>]. Accessed 29 January 2021.

[3] ReliefWeb. "Newly-constructed COVID-19 Isolation Ward opens in Dohuk". October 2020. [<https://reliefweb.int/report/iraq/newly-constructed-covid-19-isolation-ward-opens-dohuk>]. Accessed 29 January 2021.

[4] WHO. "WHO establishes isolation unit in Hamam Aleel Field Hospital to support the treatment of internally displaced COVID-19 patients". [<http://www.emro.who.int/iraq/iraq-news/who-establishes-isolation-unit-in-hamam-aleel-field-hospital-to-support-the-treatment-of-internally-displaced-covid-19-patients.html>]. Accessed 29 January 2021.

[5] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 29 January 2021.

[6] Iraqi Ministry of Health. Public Health Directorate. [<http://phd.iq/index.php>]. Accessed 29 January 2021.

[7] Medecins Sans Frontieres (MSF). "MSF supports Iraqi hospitals responding to COVID-19". April 2020.

[<https://www.msf.org/msf-supports-iraqi-hospitals-responding-covid-19-pandemic>]. Accessed 29 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: 1**

There is sufficient publicly available information that shows that Iraq's Ministry of Health has a procurement protocol in place which can be utilized for the acquisition of medical supplies (e.g. equipment, PPE) and laboratory supplies (e.g. equipment, reagents and media) for routine needs.

According to Al Tamimi's "A Quick Guide to the Iraqi Healthcare Industry" of 2017, "Importation of medical products, which include medicines, cosmetics, and medical appliances, can follow different business models depending on who the buyer is. There are two broad possibilities in Iraq: the buyer can be the State Company for Marketing Drugs and Medical Appliances ('KIMADIA') or it can be a buyer from the Iraqi private market. On the public procurement side, KIMADIA is the only governmental body authorised to import medical products on behalf of the Iraqi government, and it does so using the usual regulations for public tendering applicable in Iraq. When KIMADIA solicits bids for public tenders, it follows regulations no 1 and 2 of 2014 on implementing government contracts". [1] The guide adds that "import licences are issued to scientific offices to import a specific product prior to import, and, as an exception, to parties dealing directly with KIMADIA", and that "there are certain circumstances where KIMADIA will provide assistance to importers to expedite the registration process at the Ministry of Health for performance of awarded bids". [1] Therefore, KIMADIA is limited to the importation of medical products, including medicines, cosmetics, and medical appliances.

The website of the Ministry of Health provides access to information regarding KIMADIA's procurement pages. All recent procurements can be viewed online. [2, 3, 4, 5] This indicates that both medical and laboratory supplies tenders are done through the KIMADIA platform.

The Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, states that "The State company for marketing drugs and medical appliances ('KIMADIA'), in the MoH, has the legal mandate and authority to procure medical countermeasures. A system is in place for KIMADIA to purchase medical countermeasures through contracts with domestic and international companies. A stock of 20% is dedicated to emergencies and is part of all procurements. As reported, the process for the procurement is lengthy and causes delay in meeting the routine services. Several public health events and emergencies occurred in the country that necessitated the procurement of additional medical countermeasures. As reported, KIMADIA has a fast track system in place to expedite the procurement process. This may have not been followed, as a delay in the procurement of medical countermeasures to respond to different public health emergencies was reported". [6]

The website of the Ministry of Health provides access to a tender portal where it shares its archive of all previous tenders. However, there is no evidence that this tender platform is in use, nor that it is used to procure laboratory supplies (e.g. equipment, reagents and media) and medical supplies (e.g. equipment, PPE) for routine needs. [7] Its use is very limited, since only 8 entries exist for 2019 and 2020 together, specifically for tenders regarding cleaning medical facilities, maintaining infrastructure and other procedural functions.

The website of the Ministry of Agriculture provide information about tenders made on its website. However, there is no evidence that the platform was utilized for the acquisition of laboratory supplies (e.g. equipment, reagents and media) and medical supplies (e.g. equipment, PPE). [8]

[1] Al Tamimi & Co. February 2017. "A Quick Guide to the Iraqi Healthcare Industry". [<https://www.tamimi.com/law-update-articles/a-quick-guide-to-the-iraqi-healthcare-industry/>]. Accessed 30 January 2021.

[2] Ministry of Health. KIMADIA. [<https://www.kimadia.iq/>]. Accessed 30 January 2021.

[3] Ministry of Health. KIMADIA. "Tenders for Laboratory Supplies". [<https://kimadia.iq/article/view/39>]. Accessed 30 January 2021.

[4] Ministry of Health. KIMADIA. "Tenders for Medical and Laboratory Equipment". [<https://kimadia.iq/article/view/36>]. Accessed 30 January 2021.

[5] Ministry of Health. KIMADIA. "Tenders for Medical Supplies". [<https://kimadia.iq/article/view/52>]. Accessed 30 January 2021.

[6] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 30 January 2021.

[7] Ministry of Health. Tender Archives.

[<https://moh.gov.iq/index.php?name=monaksa&countpage=10&currenpage=0&all=1>]. Accessed 30 January 2021.

[8] Iraqi Ministry of Agriculture. Tender Program. [<http://zeraa.gov.iq/index.php?name=monaksa>]. Accessed 31 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: 0**

There is no publicly available information that shows that Iraq has a stockpile of medical supplies (e.g. MCMs, medicines, vaccines, medical equipment, PPE) for national use during a public health emergency.

The Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, states that "Iraq has a number of pharmaceutical manufacturers that produce medications and medical supplies. However, none of them has the capacity to produce vaccines or drugs that can be used to respond to public health emergencies. As a result, these must be purchased from external manufacturers. The State Company for Marketing Drugs and Medical Appliances ('KIMADIA'), in the MoH, has the legal mandate and authority to procure medical countermeasures. A system is in place for KIMADIA to purchase medical countermeasures through contracts with domestic and international companies. A stock of 20% is dedicated to emergencies and is part of all procurements. As reported, the process for the procurement is lengthy and causes delay in meeting the routine services. Several public health events and emergencies occurred in the country that necessitated the procurement of additional medical countermeasures. As reported, KIMADIA has a fast track system in

place to expedite the procurement process, this may have not been followed, as delay in the procurement of medical countermeasures to respond to different public health emergencies was reported". [1] Thus the JEE does not bring reference to any stockpile of medical supplies (e.g. MCMs, medicines, vaccines, medical equipment, PPE). [1]

The websites of the Ministry of Health and Public Health Directorate do not provide additional information that shows that Iraq has a stockpile of medical supplies (e.g. MCMs, medicines, vaccines, medical equipment, PPE) for national use during a public health emergency. [2, 3] The National Centre for Drug Control and Research within the Ministry of Health manages the approval process of medicines in Iraq, but there is no indication that it maintains a stockpile of medical supplies (e.g. MCMs, medicines, vaccines, medical equipment, PPE) for national use during a public health emergency. [4] No additional information is provided by the Ministry of the Interior, Ministry of Defence, or the Joint Coordination and Monitoring Centre. [5, 6, 7]

[1] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 29 January 2021.

[2] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 30 January 2021.

[3] Iraqi Ministry of Health. Public Health Directorate. [<http://phd.iq/index.php>]. Accessed 30 January 2021.

[4] Iraqi Ministry of Health. National Center for Drug Control and Research. [<https://moh.gov.iq/index.php?name=News&file=article&sid=618>]. Accessed 30 January 2021.

[5] Iraqi Ministry of the Interior. [<https://moi.gov.iq/>]. Accessed 29 January 2021.

[6] Iraqi Ministry of Defence. [<https://www.mod.mil.iq/>]. Accessed 29 January 2021.

[7] Joint Coordination and Monitoring Centre. [<http://jcmc.gov.iq/?>]. Accessed 29 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 no publicly available information that shows that Iraq has a stockpile of laboratory supplies (e.g. reagents, media) for national use during a public health emergency.

The Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, states that "Iraq has a number of pharmaceutical manufacturers that produce medications and medical supplies. However, none of them has the capacity to produce vaccines or drugs that can be used to respond to public health emergencies. As a result, these must be purchased from external manufacturers. The State Company for Marketing Drugs and Medical Appliances ('KIMADIA'), in the MoH, has the legal mandate and authority to procure medical countermeasures. A system is in place for KIMADIA to purchase medical countermeasures through contracts with domestic and international companies. A stock of 20% is dedicated to emergencies and is part of all procurements. As reported, the process for the procurement is lengthy and causes delay in meeting the routine services. Several public health events and emergencies occurred in the country that necessitated the procurement of additional medical countermeasures. As reported, KIMADIA has a fast track system in place to expedite the procurement process, this may have not been followed, as delay in the procurement of medical countermeasures to respond to different public health emergencies was reported". [1] Thus the JEE does not bring reference to any stockpile of laboratory supplies (e.g. reagents, media). [1]

The websites of the Ministry of Health and Public Health Directorate do not provide additional information that shows that

Iraq has a stockpile of laboratory supplies (e.g. reagents, media) for national use during a public health emergency. [2, 3] The National Centre for Drug Control and Research within the Ministry of Health manages the approval process of medicines in Iraq, but there is no indication that it maintains a stockpile of laboratory supplies (e.g. reagents, media) for national use during a public health emergency. [4] No additional information is provided by the Ministry of the Interior, Ministry of Defence, or the Joint Coordination and Monitoring Centre. [5, 6, 7]

[1] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 29 January 2021.

[2] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 30 January 2021.

[3] Iraqi Ministry of Health. Public Health Directorate. [<http://phd.iq/index.php>]. Accessed 30 January 2021.

[4] Iraqi Ministry of Health. National Center for Drug Control and Research. [<https://moh.gov.iq/index.php?name=News&file=article&sid=618>]. Accessed 30 January 2021.

[5] Iraqi Ministry of the Interior. [<https://moi.gov.iq/>]. Accessed 29 January 2021.

[6] Iraqi Ministry of Defence. [<https://www.mod.mil.iq/>]. Accessed 29 January 2021.

[7] Joint Coordination and Monitoring Centre. [<http://jcmc.gov.iq/>]. Accessed 29 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 Iraq conducts or requires an annual review of the national stockpile to ensure the supply is sufficient for a public health emergency. The Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, states that "Iraq has a number of pharmaceutical manufacturers that produce medications and medical supplies. However, none of them has the capacity to produce vaccines or drugs that can be used to respond to public health emergencies. As a result, these must be purchased from external manufacturers. The State Company for Marketing Drugs and Medical Appliances ('KIMADIA'), in the MoH, has the legal mandate and authority to procure medical countermeasures. A system is in place for KIMADIA to purchase medical countermeasures through contracts with domestic and international companies. A stock of 20% is dedicated to emergencies and is part of all procurements. As reported, the process for the procurement is lengthy and causes delay in meeting the routine services. Several public health events and emergencies occurred in the country that necessitated the procurement of additional medical countermeasures. As reported, KIMADIA has a fast track system in place to expedite the procurement process, this may have not been followed, as delay in the procurement of medical countermeasures to respond to different public health emergencies was reported". [1] Thus the JEE does not provide evidence that Iraq conducts or requires an annual review of the national stockpile to ensure the supply is sufficient for a public health emergency. [1]

The websites of the Ministry of Health and Public Health Directorate do not provide additional information that shows that Iraq conducts or requires an annual review of the national stockpile to ensure the supply is sufficient for a public health emergency. [2, 3] The National Centre for Drug Control and Research within the Ministry of Health manages the approval process of medicines in Iraq, but there is no indication that it conducts or requires an annual review of the national stockpile to ensure the supply is sufficient for a public health emergency. [4] No additional information is provided by the Ministry of the Interior, Ministry of Defence, or the Joint Coordination and Monitoring Centre. [5, 6, 7]

- [1] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 29 January 2021.
- [2] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 30 January 2021.
- [3] Iraqi Ministry of Health. Public Health Directorate. [<http://phd.iq/index.php>]. Accessed 30 January 2021.
- [4] Iraqi Ministry of Health. National Center for Drug Control and Research. [<https://moh.gov.iq/index.php?name=News&file=article&sid=618>]. Accessed 30 January 2021.
- [5] Iraqi Ministry of the Interior. [<https://moi.gov.iq/>]. Accessed 29 January 2021.
- [6] Iraqi Ministry of Defence. [<https://www.mod.mil.iq/>]. Accessed 29 January 2021.
- [7] Joint Coordination and Monitoring Centre. [<http://jcmc.gov.iq/?>]. Accessed 29 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 no publicly available information that shows that Iraq has a plan/mechanism to procure medical supplies (e.g. MCMs, medicines, vaccines, equipment, PPE) for national use during a public health emergency; nor 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.

The Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, states that "Iraq has a number of pharmaceutical manufacturers that produce medications and medical supplies. However, none of them has the capacity to produce vaccines or drugs that can be used to respond to public health emergencies. As a result, these must be purchased from external manufacturers. The State Company for Marketing Drugs and Medical Appliances ('KIMADIA'), in the MoH, has the legal mandate and authority to procure medical countermeasures. A system is in place for KIMADIA to purchase medical countermeasures through contracts with domestic and international companies. A stock of 20% is dedicated to emergencies and is part of all procurements. As reported, the process for the procurement is lengthy and causes delay in meeting the routine services. Several public health events and emergencies occurred in the country that necessitated the procurement of additional medical countermeasures. As reported, KIMADIA has a fast track system in place to expedite the procurement process, this may have not been followed, as delay in the procurement of medical countermeasures to respond to different public health emergencies was reported". [1] However, this is no evidence of the presence of a plan/mechanism to procure medical supplies (e.g. MCMs, medicines, vaccines, equipment, PPE) for national use during a public health emergency. Nor 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. [1]

The websites of the Ministry of Health and Public Health Directorate do not provide additional information that shows that Iraq has a plan/mechanism to procure medical supplies (e.g. MCMs, medicines, vaccines, equipment, PPE) for national use during a public health emergency. Nor 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. [2, 3] The National Centre for Drug Control and Research within the Ministry of Health manages the approval process of medicines in Iraq, but there is no indication that it has a plan/mechanism to procure medical supplies (e.g. MCMs, medicines, vaccines, equipment, PPE) for national use during a public health emergency. [4] No additional information is provided by the Ministry of the Interior, Ministry of Defence, or the Joint Coordination and Monitoring Centre. [5, 6, 7]

[1] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 29 January 2021.

[2] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 30 January 2021.

[3] Iraqi Ministry of Health. Public Health Directorate. [<http://phd.iq/index.php>]. Accessed 30 January 2021.

[4] Iraqi Ministry of Health. National Center for Drug Control and Research. [<https://moh.gov.iq/index.php?name=News&file=article&sid=618>]. Accessed 30 January 2021.

[5] Iraqi Ministry of the Interior. [<https://moi.gov.iq/>]. Accessed 29 January 2021.

[6] Iraqi Ministry of Defence. [<https://www.mod.mil.iq/>]. Accessed 29 January 2021.

[7] Joint Coordination and Monitoring Centre. [<http://jcmc.gov.iq/?>]. Accessed 29 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 no publicly available information that shows that Iraq has a plan/mechanism to procure laboratory supplies (e.g. reagents, media) for national use during a public health emergency; nor 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.

The Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, states that "Iraq has a number of pharmaceutical manufacturers that produce medications and medical supplies. However, none of them has the capacity to produce vaccines or drugs that can be used to respond to public health emergencies. As a result, these must be purchased from external manufacturers. The State Company for Marketing Drugs and Medical Appliances ('KIMADIA'), in the MoH, has the legal mandate and authority to procure medical countermeasures. A system is in place for KIMADIA to purchase medical countermeasures through contracts with domestic and international companies. A stock of 20% is dedicated to emergencies and is part of all procurements. As reported, the process for the procurement is lengthy and causes delay in meeting the routine services. Several public health events and emergencies occurred in the country that necessitated the procurement of additional medical countermeasures. As reported, KIMADIA has a fast track system in place to expedite the procurement process, this may have not been followed, as delay in the procurement of medical countermeasures to respond to different public health emergencies was reported". [1] However, there is no mention of laboratory supplies, and thus this is no evidence of the presence of a stockpile of laboratory supplies (e.g. reagents, media) for national use during a public health emergency. Nor 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. [1]

The websites of the Ministry of Health and Public Health Directorate do not provide additional information that shows that Iraq has a plan/mechanism to procure laboratory supplies (e.g. reagents, media) for national use during a public health emergency. Nor 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. [2, 3] The National Centre for Drug Control and Research within the Ministry of Health manages the approval process of medicines in Iraq, but there is no indication that it has a plan/mechanism to procure laboratory supplies (e.g. reagents, media) for national use during a public health emergency. [4] No additional information is provided by the Ministry of the Interior, Ministry of Defence, or the Joint Coordination and Monitoring Centre. [5, 6, 7]

[1] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 29 January 2021.

[2] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 30 January 2021.

[3] Iraqi Ministry of Health. Public Health Directorate. [<http://phd.iq/index.php>]. Accessed 30 January 2021.

[4] Iraqi Ministry of Health. National Center for Drug Control and Research.

[<https://moh.gov.iq/index.php?name=News&file=article&sid=618>]. Accessed 30 January 2021.

[5] Iraqi Ministry of the Interior. [<https://moi.gov.iq/>]. Accessed 29 January 2021.

[6] Iraqi Ministry of Defence. [<https://www.mod.mil.iq/>]. Accessed 29 January 2021.

[7] Joint Coordination and Monitoring Centre. [<http://jcmc.gov.iq/?>]. Accessed 29 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 no publicly available information that shows that Iraq 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) mission report of the Republic of Iraq, which was published in March 2019, "plans that identifies the country need for medical countermeasures for routine and emergency uses are in place". It adds that "legal and regulatory systems are in place for sending and receiving medical countermeasures during public health emergencies". However, the JEE report does not provide specifics as to modes of dispensing MCMs nor methods of rationing such medicines. [1]

The National Centre for Drug Control and Research within the Ministry of Health manages the approval process of medicines in Iraq, but there is no indication that it maintains a stockpile of countermeasures or a plan for dispensing them during a public health emergency. [2] Likewise, the Centre for Disease Control within the Ministry of Health Public Health Directorate also does not appear to have a plan in place for the use of countermeasures. [3] The Early Warning and Response Network

(EWARNs) is designed to both conduct infectious disease surveillance and alert public health officials once infectious diseases are detected. [4] However, there is no indication that it has a plan in place for the stockpile or use of medical countermeasures. There is no evidence of a stockpile of medical countermeasures or a plan for their use through the Ministry of Health, Central Public Health Laboratory, Ministry of the Interior, Ministry of Defence, or the Joint Coordination and Monitoring Centre. [5, 6, 7, 8, 9]

[1] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 31 January 2021.

[2] Iraqi Ministry of Health. National Center for Drug Control and Research. [<https://moh.gov.iq/index.php?name=News&file=article&sid=618>]. Accessed 31 January 2021.

[3] Iraqi Ministry of Health. Public Health Directorate. "Centre for Disease Control". [[http://www.phd.iq/CMS.php?CMS\\_P=260](http://www.phd.iq/CMS.php?CMS_P=260)]. Accessed 31 January 2021.

[4] World Health Organisation (WHO). "Iraq: EWARNs Dashboard". [<http://www.emro.who.int/irq/ewarns/ewarns-dashboard.html>]. Accessed 31 January 2021.

[5] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 31 January 2021.

[6] Iraqi Ministry of Health. Public Health Directorate. "A brief description of the Central [Public] Health Laboratory". [[http://phd.iq/CMS.php?CMS\\_P=173](http://phd.iq/CMS.php?CMS_P=173)]. Accessed 31 January 2021.

[7] Iraqi Ministry of the Interior. [<https://moi.gov.iq/>]. Accessed 31 January 2021.

[8] Iraqi Ministry of Defence. [<https://www.mod.mil.iq/>]. Accessed 31 January 2021.

[9] Joint Coordination and Monitoring Centre. [<http://jcmc.gov.iq/?>]. Accessed 31 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**

There is no publicly available information that shows that Iraq has a public plan in place to receive health personnel from other countries to respond to a public health emergency.

According to the Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, "the country has several rapid response teams to investigate and respond to public health emergencies but these teams are not multidisciplinary and do not exist at all levels of the country. Emergency Medical Teams do not exist throughout the country. Discussion is ongoing with WHO to establish such teams and build tiered capacities to serve the country and potentially be part of international teams. The country receives several public health personnel through various international organizations and UN agencies and also directly through the government to support the risk assessment, evaluation, planning and response to public health emergencies". [1]

The JEE adds that "obtaining visas takes time and there is no system to expedite issuing visas for the rapid deployment of personnel. Also, medical teams from international organizations and countries have been deployed to provide the needed support. These teams can legally practice medicine in the country. System or SOPs for the licensing and accreditation of these teams do not exist". Therefore there is no sufficient evidence of a plan to timely receive health personnel from other countries to respond to a public health emergency. [1]

According to the United Nations Development Programme report from 2014, Iraq's Governorate Emergency Cells operate as regional hubs of disaster risk management and response. [2] These cells are also supported by members of national and international non-governmental organizations. [2] However, it is not clear what this support entails or whether it includes a plan to supply health personnel from outside Iraq in the event of a public health emergency. The Joint Coordination and Monitoring Centre (JCMC) represents the Iraqi government in coordinating local and international support of emergency preparedness and crisis response. [3] Although the JCMC lists multiple international partner organizations, it does not appear to have a formal plan in place for receiving public health personnel from overseas. [4] There is no evidence of a plan in place to receive health personnel from other countries through the Ministry of Health, Central Public Health Laboratory, Centre for Disease Control, Ministry of the Interior, Ministry of Defence, or the Ministry of Foreign Affairs. [5, 6, 7, 8, 9, 10]

[1] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 31 January 2021.

[2] United Nations Development Programme. June 2014. "Iraq: Country Case Study Report". [[https://www.undp.org/content/dam/undp/library/crisis%20prevention/UNDP+CPR\\_DRRLaw\\_Iraq.pdf](https://www.undp.org/content/dam/undp/library/crisis%20prevention/UNDP+CPR_DRRLaw_Iraq.pdf)]. Accessed 31 January 2021.

[3] Joint Coordination and Monitoring Centre. [<http://jcmc.gov.iq/>]. Accessed 31 January 2021.

[4] Joint Coordination and Monitoring Centre. "JCMC Representative Network". [[http://jcmc.gov.iq/?page\\_id=6238&lang=en](http://jcmc.gov.iq/?page_id=6238&lang=en)]. Accessed 31 January 2021.

[5] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 31 January 2021.

[6] Iraqi Ministry of Health. Public Health Directorate. "A brief description of the Central [Public] Health Laboratory". [[http://phd.iq/CMS.php?CMS\\_P=173](http://phd.iq/CMS.php?CMS_P=173)]. Accessed 31 January 2021.

[7] Iraqi Ministry of Health. Public Health Directorate. "Centre for Disease Control". [[http://www.phd.iq/CMS.php?CMS\\_P=260](http://www.phd.iq/CMS.php?CMS_P=260)]. Accessed 31 January 2021.

[8] Iraqi Ministry of the Interior. [<https://moi.gov.iq/>]. Accessed 31 January 2021.

[9] Iraqi Ministry of Defence. [<https://www.mod.mil.iq/>]. Accessed 31 January 2021.

[10] Iraqi Ministry of Foreign Affairs. [<https://www.mofa.gov.iq/en>]. Accessed 31 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: 95.6

2018

WHO/World Bank/United Nations Children's Fund (UNICEF)

#### 4.4.1c

Out-of-pocket health expenditures per capita, purchasing power parity (PPP; current international \$)

Input number

Current Year Score: 378.34

2017

WHO Global Health Expenditure database

### 4.4.2 Paid medical leave

#### 4.4.2a

Are workers guaranteed paid sick leave?

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

Current Year Score: 2

2020

World Policy Analysis Center

### 4.4.3 Healthcare worker access to healthcare

#### 4.4.3a

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

Yes = 1, No = 0

Current Year Score: 0

There is no evidence that the Iraqi government has 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.

The Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, does not bring reference to legislation, a policy, or a public statement committing to provide prioritized healthcare services to healthcare workers who become sick as a result of responding to a public health emergency. [1]

According to an article by Relief Web in July 2020, "in addition to ventilators and other life-saving equipment provided to the

hospital, UNDP Iraq is also building isolation units, providing personal protective equipment (PPE) to healthcare workers to stop the spread of the virus, and boosting the testing capacity of labs to increase the detection of cases". [2] Additionally, an article by UNDP in June 2020 states that UNDP's efforts in Iraq "fall under UNDP Iraq's overall COVID-19 response plan which is administered through the Funding Facility for Stabilization and also includes increasing the testing capacity of laboratories, providing personal protective equipment to healthcare workers, building isolation units for infected patients and promoting social cohesion among communities". [3] UNDP Iraq's Resident Representative adds that "the emergence of COVID-19 has added yet another layer of crisis upon Iraq's already-fragile state, crippling its healthcare system, the economy and people's livelihoods. This is deeply concerning especially for vulnerable communities that inevitably bear the brunt of such shocks". Therefore, there is no evidence of legislation, a policy, or a public statement committing to provide prioritized healthcare services to healthcare workers who become sick as a result of responding to a public health emergency. [3]

The Joint Coordination and Monitoring Centre (JCMC) represents the Iraqi government in coordinating local and international support of emergency preparedness and crisis response. [4] However, the JCMC does not provide a publicly available plan for public emergency response, and it has made no statement regarding a policy of providing prioritized healthcare to public health workers during an emergency. [4] There is no evidence of a policy to provide prioritized healthcare to public health workers during an emergency through the Ministry of Health, Central Public Health Laboratory, Centre for Disease Control, Ministry of the Interior, Ministry of Defence, or the Ministry of Foreign Affairs, the Parliament of the Republic of Iraq, or the Iraqi Local Governance Law Library. [5, 6, 7, 8, 9, 10, 11, 12]

[1] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 31 January 2021.

[2] Relief Web. "Battling Coronavirus: France prioritizes critical medical equipment in southern Iraq". July 2020. [<https://reliefweb.int/report/iraq/battling-coronavirus-france-prioritizes-critical-medical-equipment-southern-iraq-enarku>]. Accessed 31 January 2021.

[3] UNDP. "Japan prioritizes Iraq's health and recovery from COVID-19 in new contribution". June 2020. [<https://www.arabstates.undp.org/content/rbas/en/home/presscenter/pressreleases/2020/japan-prioritizes-iraqs-health-and-recovery-from-covid-19-in-new.html>]. Accessed 31 January 2021.

[4] Joint Coordination and Monitoring Centre. [<http://jcmc.gov.iq/>]. Accessed 31 January 2021.

[5] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 31 January 2021.

[6] Iraqi Ministry of Health. Public Health Directorate. "A brief description of the Central [Public] Health Laboratory". [[http://phd.iq/CMS.php?CMS\\_P=173](http://phd.iq/CMS.php?CMS_P=173)]. Accessed 31 January 2021.

[7] Iraqi Ministry of Health. Public Health Directorate. "Centre for Disease Control". [[http://www.phd.iq/CMS.php?CMS\\_P=260](http://www.phd.iq/CMS.php?CMS_P=260)]. Accessed 31 January 2021.

[8] Iraqi Ministry of the Interior. [<https://moi.gov.iq/>]. Accessed 31 January 2021.

[9] Iraqi Ministry of Defence. [<https://www.mod.mil.iq/>]. Accessed 31 January 2021.

[10] Iraqi Ministry of Foreign Affairs. [<https://www.mofa.gov.iq/en>]. Accessed 31 January 2021.

[11] Parliament of the Republic of Iraq. [<http://en.parliament.iq/>]. Accessed 31 January 2021.

[12] Iraqi Local Governance Law Library. [<http://www.iraq-lg-law.org/>]. Accessed 31 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 no publicly available information regarding a system in place for public health officials and healthcare workers to communicate during a public health emergency in Iraq.

The Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, does not bring reference of a system in place for public health officials and healthcare workers to communicate during a public health emergency in Iraq. [1]

The Joint Coordination and Monitoring Centre (JCMC) represents the Iraqi government in coordinating local and international support of emergency preparedness and crisis response. [2] However, the JCMC does not appear to have a formal system in place for public health officials and healthcare workers to communicate during a public health emergency. [2] Likewise, the Early Warning and Response Network (EWARNs) system for infectious disease surveillance and response does not appear to have a plan in place for maintaining communication between elements of the public health infrastructure during emergencies. [3]

According to the "National Health Policy 2014-2023," one of the Ministry of Health's goals is to "invest in community participation and volunteering support for emergency preparedness with an emphasis on building human capacity and sustainable integrated systems," but there is no evidence that this has already taken place. [4] There is no evidence of a system in place for public health officials and healthcare workers to communicate during a public health emergency through the Ministry of Health, Central Public Health Laboratory, Centre for Disease Control, Ministry of the Interior, or the Ministry of Defence. [5, 6, 7, 8, 9]

[1] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 31 January 2021.

[2] Joint Coordination and Monitoring Centre. "Network of Representatives of the Joint Coordination and Monitoring Centre". [[http://jcmc.gov.iq/?page\\_id=2565](http://jcmc.gov.iq/?page_id=2565)]. Accessed 31 January 2021.

[3] World Health Organisation (WHO). "Iraq: EWARNs Dashboard". [<http://www.emro.who.int/iraq/ewarns/ewarns-dashboard.html>]. Accessed 31 January 2021.

[4] Iraqi Ministry of Health. 2014. "National Health Policy: 2014-2023".

[[http://www.nationalplanningcycles.org/sites/default/files/planning\\_cycle\\_repository/iraq/iraqs\\_national\\_health\\_policy\\_2014-2023.pdf](http://www.nationalplanningcycles.org/sites/default/files/planning_cycle_repository/iraq/iraqs_national_health_policy_2014-2023.pdf)]. Accessed 31 January 2021.

[5] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 31 January 2021.

[6] Iraqi Ministry of Health. Public Health Directorate. "A brief description of the Central [Public] Health Laboratory". [[http://phd.iq/CMS.php?CMS\\_P=173](http://phd.iq/CMS.php?CMS_P=173)]. Accessed 31 January 2021.

[7] Iraqi Ministry of Health. Public Health Directorate. "Centre for Disease Control".

[[http://www.phd.iq/CMS.php?CMS\\_P=260](http://www.phd.iq/CMS.php?CMS_P=260)]. Accessed 31 January 2021.

[8] Iraqi Ministry of the Interior. [<https://moi.gov.iq/>]. Accessed 31 January 2021.

[9] Iraqi Ministry of Defence. [<https://www.mod.mil.iq/>]. Accessed 31 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 no publicly available information regarding a system in place for public health officials and healthcare workers to communicate during a public health emergency in Iraq or a specific mechanism for incorporating private sector workers.

The Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, does not bring reference to a system for public health officials and healthcare workers to communicate during an emergency encompass healthcare workers in both the public and private sector. [1]

The Joint Coordination and Monitoring Centre (JCMC) represents the Iraqi government in coordinating local and international support of emergency preparedness and crisis response. [2] However, the JCMC does not appear to have a formal system in place for public health officials and healthcare workers to communicate during a public health emergency. [2] Likewise, the Early Warning and Response Network (EWARNs) system for infectious disease surveillance and response does not appear to have a plan in place for maintaining communication between elements of the public health infrastructure in either the public or private sectors during emergencies. [3]

According to the "National Health Policy 2014-2023," one of the Ministry of Health's goals is to "invest in community participation and volunteering support for emergency preparedness with an emphasis on building human capacity and sustainable integrated systems." [4] This plan would include the expanded use of "public-private partnerships," but there is no evidence that this development has already taken place. [4] There is no evidence of a system in place for public health officials and healthcare workers to communicate during a public health emergency through the Ministry of Health, Central Public Health Laboratory, Centre for Disease Control, Ministry of the Interior, or the Ministry of Defence. [5, 6, 7, 8, 9]

[1] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 31 January 2021.

[2] Joint Coordination and Monitoring Centre. "Network of Representatives of the Joint Coordination and Monitoring Centre". [[http://jcmc.gov.iq/?page\\_id=2565](http://jcmc.gov.iq/?page_id=2565)]. Accessed 31 January 2021.

[3] World Health Organisation (WHO). "Iraq: EWARNs Dashboard". [<http://www.emro.who.int/irq/ewarns/ewarns-dashboard.html>]. Accessed 31 January 2021.

[4] Iraqi Ministry of Health. 2014. "National Health Policy: 2014-2023".

[[http://www.nationalplanningcycles.org/sites/default/files/planning\\_cycle\\_repository/iraq/iraqs\\_national\\_health\\_policy\\_2014-2023.pdf](http://www.nationalplanningcycles.org/sites/default/files/planning_cycle_repository/iraq/iraqs_national_health_policy_2014-2023.pdf)]. Accessed 31 January 2021.

[5] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 31 January 2021.

[6] Iraqi Ministry of Health. Public Health Directorate. "A brief description of the Central [Public] Health Laboratory". [[http://phd.iq/CMS.php?CMS\\_P=173](http://phd.iq/CMS.php?CMS_P=173)]. Accessed 31 January 2021.

[7] Iraqi Ministry of Health. Public Health Directorate. "Centre for Disease Control".

[[http://www.phd.iq/CMS.php?CMS\\_P=260](http://www.phd.iq/CMS.php?CMS_P=260)]. Accessed 31 January 2021.

[8] Iraqi Ministry of the Interior. [<https://moi.gov.iq/>]. Accessed 31 January 2021.

[9] Iraqi Ministry of Defence. [<https://www.mod.mil.iq/>]. Accessed 31 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**

There is no publicly available information that shows that Iraq has a national public health system that is monitoring for and tracking the number of healthcare-associated infections (HCAI) that take place in healthcare facilities.

According to the Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, "although an infection prevention and control section exists in Ministry of Health (MoH), Infection Prevention and Control (IPC) guidelines are outdated and not appropriately utilized. IPC critical supplies suffer from poor budgetary support in health facilities. Only 70% of hospitals have access to safe water, sanitation and hygiene. Similar IPC units exist in the Ministry of Agriculture (MoA) and a national plan for animal vaccination is available". [1] However, the JEE adds that "IPC sections exist in both MoH and more recently in MoA, and IPC teams and committees exist in every major MoH hospital", and that "national guidelines for IPC and sterilization of medical/surgical instruments are available". [1]

According to a news report from the Medical City hospital network in November 2018, which is operated by the Ministry of Health, the hospital maintains an Acquired Infection Control Unit that attempts to raise awareness of HCAI/HAI among staff and control the spread of infections, but this program is not mentioned elsewhere, and there is no evidence of a surveillance component. [2]

The Ministry of Health announced that a hospital in Kirkuk would be the first of its kind to begin to conduct hospital-acquired infectious surveillance in October 2011, but there is no additional indication of an HCAI/HAI surveillance program in place elsewhere in the public health system. [3] The Ministry of Health also conducted a training course in Samarra General Hospital in August 2018 to raise awareness of nosocomial infections, but there is no evidence that it was part of a larger program. [4] There is no other evidence of a program to monitor and track the number of HCAI/HAI in Iraq through the Ministry of Health, Ministry of Higher Education and Scientific Research, the Central Public Health Laboratory, or the Centre for Disease Control. [5, 6, 7, 8]

[1] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 31 January 2021.

[2] Medical City. 28 November 2018. "Specific Achievements of the Acquired Infection Control Unit at the Specialized Burns Hospital in the Directorate of Medical City". [<https://www.medicalcity.gov.iq/ar/view/373>]. Accessed 31 January 2021.

[3] Iraqi Ministry of Health. 6 October 2011. "Kirkuk Health: The first-ever surveillance of acquired infections is being held in Iraq" [<https://moh.gov.iq/index.php?name=News&file=print&op=PrintPage&sid=421>]. Accessed 31 January 2021.

[4] Iraqi Ministry of Health. 27 August 2018. "Samarra General Hospital organizes a scientific lecture on infections acquired in

hospitals". [<https://moh.gov.iq/index.php?name=News&file=article&sid=10669>]. Accessed 31 January 2021.

[5] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 31 January 2021.

[6] Iraqi Ministry of Higher Education and Scientific Research. [<http://moheer.gov.iq/ar/>]. Accessed 31 January 2021.

[7] Iraqi Ministry of Health. Public Health Directorate. "A brief description of the Central [Public] Health Laboratory". [[http://phd.iq/CMS.php?CMS\\_P=173](http://phd.iq/CMS.php?CMS_P=173)]. Accessed 31 January 2021.

[8] Iraqi Ministry of Health. Public Health Directorate. "Centre for Disease Control".

[[http://www.phd.iq/CMS.php?CMS\\_P=260](http://www.phd.iq/CMS.php?CMS_P=260)]. Accessed 31 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**

There is no publicly available evidence of a national requirement for ethical review before beginning a clinical trial in Iraq.

According to the Ministry of Health "International Standards for the Formation of Audit Committees and Ethical Aspects of Health Review on Humans," any testing on human subjects must be overseen by a research system of some form. [1] However, these standards appear to be a form based on World Health Organisation (WHO) suggested guidelines, and a specific review body is not mentioned.

The Ministry of Higher Education and Scientific Research held a lecture on the ethics of scientific research at Diyala University in September 2017, but there was no indication of ethics committee involvement. [2] There is no other evidence of an ethical review requirement for clinical trials through the Ministry of Health, Ministry of Higher Education and Scientific Research, Central Public Health Laboratory, or the Centre for Disease Control. [3, 4, 5, 6] The Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, does not bring reference to an "ethical review" for beginning a "clinical trial" in Iraq. [7]

[1] Iraqi Ministry of Health. 2009. "International Standards for the Formation of Audit Committees and Ethical Aspects of Health Review on Humans". [<https://moh.gov.iq/upload/upfile/ar/mmm.pdf>]. Accessed 1 February 2021.

[2] Iraqi Ministry of Higher Education and Scientific Research. 27 September 2017. "Diyala University holds a scientific lecture on the ethics of scientific and educational research".

[<http://moheer.gov.iq/ar/2017/09/07/%D8%AC%D8%A7%D9%85%D8%B9%D8%A9-%D8%AF%D9%8A%D8%A7%D9%84%D9%89-%D8%AA%D9%82%D9%8A%D9%85-%D9%85%D8%AD%D8%A7%D8%B6%D8%B1%D8%A9-%D8%B9%D9%84%D9%85%D9%8A%D8%A9-%D8%B9%D9%86/>]. Accessed 1 February 2021.

[3] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 1 February 2021.

[4] Iraqi Ministry of Higher Education and Scientific Research. [<http://moheer.gov.iq/ar/>]. Accessed 1 February 2021.

[5] Iraqi Ministry of Health. Public Health Directorate. "A brief description of the Central [Public] Health Laboratory". [[http://phd.iq/CMS.php?CMS\\_P=173](http://phd.iq/CMS.php?CMS_P=173)]. Accessed 1 February 2021.

[6] Iraqi Ministry of Health. Public Health Directorate. "Centre for Disease Control".

[[http://www.phd.iq/CMS.php?CMS\\_P=260](http://www.phd.iq/CMS.php?CMS_P=260)]. Accessed 1 February 2021.

[7] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 1 February 2021.

#### 4.7.1b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence of a national requirement for ethical review before beginning a clinical trial or an expedited process for approving countermeasures during an ongoing pandemic in Iraq.

According to the Ministry of Health "International Standards for the Formation of Audit Committees and Ethical Aspects of Health Review on Humans," any testing on human subjects must be overseen by a research system of some form. [1] However, these standards appear to be a form based on World Health Organisation (WHO) suggested guidelines, and a specific review body is not mentioned nor is an expedited system of review for approval of medicines during public health emergencies. The Ministry of Health National Centre for Drug Control Research approves new medications in Iraq, but there is no indication that it also conducts ethical reviews when drug trials require human subjects. [2]

The Ministry of Higher Education and Scientific Research held a lecture on the ethics of scientific research at Diyala University in September 2017, but there was no indication of ethics committee involvement. [3] There is no other evidence of an ethical review requirement for approval of countermeasures during a pandemic through the Ministry of Health, Ministry of Higher Education and Scientific Research, Central Public Health Laboratory, or the Centre for Disease Control. [4, 5, 6, 7] Additionally, the Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, does not bring reference to an "ethical review" for beginning a "clinical trial" or an expedited process for approving countermeasures during an ongoing pandemic in Iraq. [8]

[1] Iraqi Ministry of Health. 2009. "International Standards for the Formation of Audit Committees and Ethical Aspects of Health Review on Humans". [<https://moh.gov.iq/upload/upfile/ar/mmm.pdf>]. Accessed 1 February 2021.

[2] Iraqi Ministry of Health. National Centre for Drug Control and Research.

[<https://moh.gov.iq/index.php?name=News&file=article&sid=618>]. Accessed 1 February 2021.

[3] Iraqi Ministry of Higher Education and Scientific Research. 27 September 2017. "Diyala University holds a scientific lecture on the ethics of scientific and educational research".

[<http://moheer.gov.iq/ar/2017/09/07/%D8%AC%D8%A7%D9%85%D8%B9%D8%A9-%D8%AF%D9%8A%D8%A7%D9%84%D9%89-%D8%AA%D9%82%D9%8A%D9%85-%D9%85%D8%AD%D8%A7%D8%B6%D8%B1%D8%A9-%D8%B9%D9%84%D9%85%D9%8A%D8%A9-%D8%B9%D9%86/>]. Accessed 1 February 2021.

[4] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 1 February 2021.

[5] Iraqi Ministry of Higher Education and Scientific Research. [<http://moheer.gov.iq/ar/>]. Accessed 1 February 2021.

[6] Iraqi Ministry of Health. Public Health Directorate. "A brief description of the Central [Public] Health Laboratory".

[[http://phd.iq/CMS.php?CMS\\_P=173](http://phd.iq/CMS.php?CMS_P=173)]. Accessed 1 February 2021.

[7] Iraqi Ministry of Health. Public Health Directorate. "Centre for Disease Control".

[[http://www.phd.iq/CMS.php?CMS\\_P=260](http://www.phd.iq/CMS.php?CMS_P=260)]. Accessed 1 February 2021.

[8] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 1 February 2021.

## 4.7.2 Regulatory process for approving medical countermeasures

### 4.7.2a

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

Yes = 1 , No = 0

**Current Year Score: 1**

There is publicly available evidence of a government agency responsible for approving new medical countermeasures for humans in Iraq.

The Ministry of Health National Centre for Drug Control Research approves new medications in Iraq for safety and effectiveness, which would include any new countermeasures that are intended for human use. [1] According to the Ministry of Health "International Standards for the Formation of Audit Committees and Ethical Aspects of Health Review on Humans," any testing on human subjects must be overseen by a research system of some form. [2] However, these standards appear to be a form based on World Health Organisation (WHO) suggested guidelines, and a specific review body is not mentioned nor is an expedited system of review for approval of medicines during public health emergencies. There is no other evidence of an ethical review requirement for approval of countermeasures during a pandemic through the Ministry of Health, Ministry of Higher Education and Scientific Research, Central Public Health Laboratory, or the Centre for Disease Control. [3, 4, 5, 6] Additionally, the Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, does not provide evidence of a government agency responsible for approving new medical countermeasures for humans in Iraq. [7]

[1] Iraqi Ministry of Health. National Centre for Drug Control and Research.

[<https://moh.gov.iq/index.php?name=News&file=article&sid=618>]. Accessed 1 February 2021.

[2] Iraqi Ministry of Health. 2009. "International Standards for the Formation of Audit Committees and Ethical Aspects of Health Review on Humans". [<https://moh.gov.iq/upload/upfile/ar/mmm.pdf>]. Accessed 1 February 2021.

[3] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 1 February 2021.

[4] Iraqi Ministry of Higher Education and Scientific Research. [<http://mohehr.gov.iq/ar/>]. Accessed 1 February 2021.

[5] Iraqi Ministry of Health. Public Health Directorate. "A brief description of the Central [Public] Health Laboratory". [[http://phd.iq/CMS.php?CMS\\_P=173](http://phd.iq/CMS.php?CMS_P=173)]. Accessed 1 February 2021.

[6] Iraqi Ministry of Health. Public Health Directorate. "Centre for Disease Control". [[http://www.phd.iq/CMS.php?CMS\\_P=260](http://www.phd.iq/CMS.php?CMS_P=260)]. Accessed 1 February 2021.

[7] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 1 February 2021.

### 4.7.2b

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

Yes = 1 , No = 0

**Current Year Score: 0**

There is no publicly available evidence of an expedited process for approving medical countermeasures for human use during public health emergencies in Iraq.

According to the Ministry of Health "International Standards for the Formation of Audit Committees and Ethical Aspects of Health Review on Humans," any testing on human subjects must be overseen by a research system of some form, including the approval of medical countermeasures for human consumption. [1] However, these standards appear to be a form based on World Health Organisation (WHO) suggested guidelines, and a specific review body is not mentioned nor is an expedited system of review for approval of medicines during public health emergencies. The Ministry of Health National Centre for Drug Control Research approves new medications in Iraq, but there is no indication that it has an expedited review process for human use during public health emergencies. [2]

There is no other evidence of an ethical review requirement for approval of countermeasures during a pandemic through the Ministry of Health, Ministry of Higher Education and Scientific Research, Central Public Health Laboratory, or the Centre for Disease Control. [3, 4, 5, 6] Additionally, the Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, does not provide evidence of an expedited process for approving medical countermeasures (MCM) for human use during public health emergencies. [7]

[1] Iraqi Ministry of Health. 2009. "International Standards for the Formation of Audit Committees and Ethical Aspects of Health Review on Humans". [<https://moh.gov.iq/upload/upfile/ar/mmm.pdf>]. Accessed 1 February 2021.

[2] Iraqi Ministry of Health. National Centre for Drug Control and Research. [<https://moh.gov.iq/index.php?name=News&file=article&sid=618>]. Accessed 1 February 2021.

[3] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 1 February 2021.

[4] Iraqi Ministry of Higher Education and Scientific Research. [<http://moheer.gov.iq/ar/>]. Accessed 1 February 2021.

[5] Iraqi Ministry of Health. Public Health Directorate. "A brief description of the Central [Public] Health Laboratory". [[http://phd.iq/CMS.php?CMS\\_P=173](http://phd.iq/CMS.php?CMS_P=173)]. Accessed 1 February 2021.

[6] Iraqi Ministry of Health. Public Health Directorate. "Centre for Disease Control". [[http://www.phd.iq/CMS.php?CMS\\_P=260](http://www.phd.iq/CMS.php?CMS_P=260)]. Accessed 1 February 2021.

[7] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 1 February 2021.

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

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

#### 5.1.1 Official IHR reporting

##### 5.1.1a

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

Yes = 1 , No = 0

Current Year Score: 1

2020

World Health Organization

#### 5.1.2 Integration of health into disaster risk reduction

##### 5.1.2a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available information that shows that Iraq has a national disaster risk reduction strategy for epidemics and pandemics.

According to the Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, "understanding disaster risk is essential for sustainable development and Iraq is working towards the principles of the Sendai Framework for Disaster Risk Reduction to analyse risk with a view to 'prevent new and reduce existing disaster risk through the implementation of integrated and inclusive economic, structural, legal, social, health, cultural, educational, environmental, technological, political, and institutional measures that prevent and reduce hazard exposure and vulnerability to disaster, increase preparedness for response and recovery, and thus strengthen resilience'". [1] Since the Draft Disaster Risk Reduction Law (2013) remains a draft and has not been enacted, then there is no evidence of a national disaster risk reduction strategy for epidemics and pandemics. [1]

The JEE adds that "the Ministry of Health (MoH) has 10-year National Health Policy (2014-2023) and four-year National Health Strategic Plan (2018-2022)". However, none of the two documents brings reference to pandemics and epidemics. [1, 2, 3] No additional information is provided on the websites of the Ministry of Health, Ministry of Higher Education and Scientific Research, Central Public Health Laboratory, or the Centre for Disease Control. [4, 5, 6, 7]

- [1] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 1 February 2021.
- [2] Ministry of Health. "National Health Policy 2014-2023". 2014. [[https://extranet.who.int/countryplanningcycles/sites/default/files/planning\\_cycle\\_repository/iraq/iraqs\\_national\\_health\\_policy\\_2014-2023.pdf](https://extranet.who.int/countryplanningcycles/sites/default/files/planning_cycle_repository/iraq/iraqs_national_health_policy_2014-2023.pdf)]. Accessed 1 February 2021.
- [3] The Ministry of Planning. "National Development Plan 2018 -2022". [[https://www.iraq-jccme.jp/pdf/archives/nationaldevelopmentplan2018\\_2022.pdf](https://www.iraq-jccme.jp/pdf/archives/nationaldevelopmentplan2018_2022.pdf)]. Accessed 1 February 2021.
- [4] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 1 February 2021.
- [5] Iraqi Ministry of Higher Education and Scientific Research. [<http://mohesr.gov.iq/ar/>]. Accessed 1 February 2021.
- [6] Iraqi Ministry of Health. Public Health Directorate. "A brief description of the Central [Public] Health Laboratory". [[http://phd.iq/CMS.php?CMS\\_P=173](http://phd.iq/CMS.php?CMS_P=173)]. Accessed 1 February 2021.
- [7] Iraqi Ministry of Health. Public Health Directorate. "Centre for Disease Control". [[http://www.phd.iq/CMS.php?CMS\\_P=260](http://www.phd.iq/CMS.php?CMS_P=260)]. Accessed 1 February 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 no publicly available evidence that Iraq has cross-border agreements, protocols, or memoranda of understanding with neighbouring countries with regards to public health emergencies.

The Joint Coordination and Monitoring Centre (JCMC) is responsible for the government of Iraq's crisis response and disaster preparedness programs. [1] The JCMC is multisectoral and incorporates "civil society and international partners" in addition to government institutions. [1] However, there is no evidence of an agreement with neighboring countries to provide assistance during public health emergencies.

Although the Ministry of Health has signed memoranda of understanding with public health officials in Turkey, South Korea, Tunisia, Iran, Japan, and Sudan, this cooperation appears to only extend to joint training exercises and not public health emergency support. [2, 3, 4, 5, 6, 7] There is no other evidence of cross-border agreements with neighboring countries to provide support during public health emergencies through the Ministry of Health, Central Public Health Laboratory, Centre for Disease Control, Ministry of the Interior, Ministry of Defence, or Ministry of Foreign Affairs. [8, 9, 10, 11, 12, 13] Additionally, the Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, does not provide evidence of cross-border agreements, protocols, or MOUs with neighboring countries, or as part of a regional group, with regards to public health emergencies. [14]

[1] Joint Coordination and Monitoring Centre. [<http://jcmc.gov.iq/>]. Accessed 1 February 2021.

[2] Iraqi Ministry of Health. 7 February 2018. "Minister of Health and Environment meets with the Turkish Minister of Health". [<https://moh.gov.iq/index.php?name=News&file=article&sid=9092>]. Accessed 1 February 2021.

- [3] Iraqi Ministry of Health. 7 October 2018. "Medical City Signs Memorandum of Understanding with South Korea's KOICA Delegation to Train Medical Staff". [<https://moh.gov.iq/index.php?name=News&file=article&sid=10931>]. Accessed 1 February 2021.
- [4] Iraqi Ministry of Health. 18 December 2017. "Minister of Health and Environment discusses with the Tunisian Ambassador the signing of a memorandum of understanding and cooperation in the fields of health". [<https://moh.gov.iq/index.php?name=News&file=article&sid=8702>]. Accessed 1 February 2021.
- [5] Iraqi Ministry of Health. 8 August 2018. "Health holds a meeting with the delegation of the Iranian Ministry of Health and Education to discuss prospects for cooperation". [<https://moh.gov.iq/index.php?name=News&file=article&sid=10563>]. Accessed 1 February 2021.
- [6] Iraqi Ministry of Health. 13 August 2017. "Minister of Health and Environment discusses with the Japanese Ambassador the promotion of prospects for health cooperation". [<https://moh.gov.iq/index.php?name=News&file=article&sid=7954>]. Accessed 1 February 2021.
- [7] Iraqi Ministry of Health. 10 March 2015. "The Minister of Health discusses with the Sudanese Ambassador the promotion of health cooperation between the two countries". [<https://moh.gov.iq/index.php?name=News&file=article&sid=4726>]. Accessed 1 February 2021.
- [8] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 1 February 2021.
- [9] Iraqi Ministry of Health. Public Health Directorate. "A brief description of the Central [Public] Health Laboratory". [[http://phd.iq/CMS.php?CMS\\_P=173](http://phd.iq/CMS.php?CMS_P=173)]. Accessed 1 February 2021.
- [10] Iraqi Ministry of Health. Public Health Directorate. "Centre for Disease Control". [[http://www.phd.iq/CMS.php?CMS\\_P=260](http://www.phd.iq/CMS.php?CMS_P=260)]. Accessed 1 February 2021.
- [11] Iraqi Ministry of the Interior. [<https://moi.gov.iq/>]. Accessed 1 February 2021.
- [12] Iraqi Ministry of Defence. [<https://www.mod.mil.iq/>]. Accessed 1 February 2021.
- [13] Iraqi Ministry of Foreign Affairs. [<https://www.mofa.gov.iq/en>]. Accessed 1 February 2021.
- [14] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 1 February 2021.

### 5.2.1b

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

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

**Current Year Score: 0**

There is no publicly available evidence that Iraq has a cross-border agreement, protocol, or memoranda of understanding with neighboring countries with regards to animal health emergencies.

In conjunction with the Ministry of Agriculture, the UN Food and Agriculture Organisation (FAO) launched an animal health emergency initiative in Iraq in October 2017 that was intended to primarily service areas of the country that had previously been controlled by the terrorist group, the Islamic State in Iraq and Greater Syria (ISIS/ISIL). [1] However, this campaign was aimed primarily at vaccinating local animals and rehabilitating critical infrastructure that had been damaged and not long-term animal health emergency support pursuant to a formal agreement.

Although the Ministry of Agriculture has signed memoranda of understanding with a number of countries, including the Czech Republic, Brazil, and Jordan, these agreements appear to be limited to joint training exercises and not animal health emergency support. [2, 3, 4] Memoranda of understanding that were signed between the Iraqi Ministry of Agriculture and authorities in Spain and Saudi Arabia both addressed matters related to infectious diseases in animals, but these agreements

appear to be limited to coordinated expertise and training and not emergency response. [5, 6]

There is no other evidence of a cross-border agreement, protocol, or memoranda of understanding with neighboring countries in the area of animal health emergencies through the Ministry of Health, Ministry of Agriculture, Central Public Health Laboratory, Centre for Disease Control, Ministry of the Interior, Ministry of Defence, or the Ministry of Foreign Affairs. [7, 8, 9, 10, 11, 12, 13] Additionally, the Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, does not provide evidence of cross-border agreements, protocols, or MOUs with neighboring countries, or as part of a regional group, with regards to animal health emergencies. [14]

[1] Food and Agriculture Organisation (FAO). 23 October 2017. "Iraq: FAO launches emergency animal health campaign in former ISIL-held Mosul area". [<http://www.fao.org/news/story/en/item/1046438/icode/>]. Accessed 1 February 2021.

[2] Iraqi Ministry of Agriculture. 24 September 2018. "The technical agent meets with the Ambassador of the Czech Republic to discuss joint agricultural cooperation". [<http://www.zeraa.gov.iq/index.php?name=News&file=article&sid=7232>]. Accessed 1 February 2021.

[3] Iraqi Ministry of Agriculture. 29 March 2018. "The technical agent of the Ministry of Agriculture receives the Minister Delegate at the Brazilian Embassy in Iraq to discuss prospects of cooperation between the two countries". [<http://www.zeraa.gov.iq/index.php?name=News&file=article&sid=6769>]. Accessed 1 February 2021.

[4] Iraqi Ministry of Agriculture. 27 January 2019. "Iraqi Minister of Agriculture receives his Jordanian counterpart to discuss the expansion of agricultural exchange between the two brotherly countries". [<http://www.zeraa.gov.iq/index.php?name=News&file=article&sid=7614>]. Accessed 1 February 2021.

[5] Iraqi Ministry of Agriculture. 9 April 2018. "Advisor to the Ministry of livestock activity meets the delegation of the Spanish Embassy to discuss the prospects of joint cooperation between the two countries in the field of agriculture and livestock". [<http://www.zeraa.gov.iq/index.php?name=News&file=article&sid=6805>]. Accessed 1 February 2021.

[6] Iraqi Ministry of Agriculture. 20 July 2017. "Minister of Agriculture: Saudi Arabian visit has achieved important results at the level of partnership between the two countries". [<http://www.zeraa.gov.iq/index.php?name=News&file=article&sid=6074>]. Accessed 1 February 2021.

[7] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 1 February 2021.

[8] Iraqi Ministry of Agriculture. [<http://www.zeraa.gov.iq/>]. Accessed 1 February 2021.

[9] Iraqi Ministry of Health. Public Health Directorate. "A brief description of the Central [Public] Health Laboratory". [[http://phd.iq/CMS.php?CMS\\_P=173](http://phd.iq/CMS.php?CMS_P=173)]. Accessed 1 February 2021.

[10] Iraqi Ministry of Health. Public Health Directorate. "Centre for Disease Control". [[http://www.phd.iq/CMS.php?CMS\\_P=260](http://www.phd.iq/CMS.php?CMS_P=260)]. Accessed 1 February 2021.

[11] Iraqi Ministry of the Interior. [<https://moi.gov.iq/>]. Accessed 1 February 2021.

[12] Iraqi Ministry of Defence. [<https://www.mod.mil.iq/>]. Accessed 1 February 2021.

[13] Iraqi Ministry of Foreign Affairs. [<https://www.mofa.gov.iq/en>]. Accessed 1 February 2021.

[14] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 1 February 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: 0

2021

Global Health Security Agenda; JE Alliance; Global Partnership; Australia Group; PSI

## 5.4 JOINT EXTERNAL EVALUATION (JEE) AND PERFORMANCE OF VETERINARY SERVICES PATHWAY (PVS)

### 5.4.1 Completion and publication of a Joint External Evaluation (JEE) assessment and gap analysis

#### 5.4.1a

Has the country completed a Joint External Evaluation (JEE) or precursor external evaluation (e.g., GHSA pilot external assessment) and published a full public report in the last five years?

Yes = 1 , No = 0

Current Year Score: 1

2021

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

#### 5.4.1b

Has the country completed and published, within the last five years, either a National Action Plan for Health Security (NAPHS) to address gaps identified through the Joint External Evaluation (JEE) assessment or a national GHSA roadmap that sets milestones for achieving each of the GHSA targets?

Yes = 1 , No = 0

Current Year Score: 0

2021

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

### 5.4.2 Completion and publication of a Performance of Veterinary Services (PVS) assessment and gap analysis

#### 5.4.2a

Has the country completed and published a Performance of Veterinary Services (PVS) assessment in the last five years?

Yes = 1 , No = 0

Current Year Score: 0

2021

OIE PVS assessments

### 5.4.2b

Has the country completed and published a Performance of Veterinary Services (PVS) gap analysis in the last five years?

Yes = 1 , No = 0

Current Year Score: 0

2021

OIE PVS assessments

## 5.5 FINANCING

### 5.5.1 National financing for epidemic preparedness

#### 5.5.1a

Is there evidence that the country has allocated national funds to improve capacity to address epidemic threats within the past three years?

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available information that shows that Iraq has allocated national funds to improve capacity to address epidemic threats within the past three years.

The Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, states that a "US\$ 40 million emergency fund made available for the Minister of Health to release during an emergency, although funds are subject to availability". [1] However, the JEE adds that the "emergency budget line is not inclusive of all expenses during an emergency" and that "budget lines are not sufficiently flexible to cover various response activities based on the type of event". [1] The JEE brings no mention of any national funds allocated to improve capacity to address epidemic threats within the past three years in its "Emergency Preparedness" section.

Additionally, the websites of the Ministry of Health, Public Health Laboratory, Public Health Directorate, Center for Disease Control, Ministry of Agriculture, World Health Organisation (WHO) country page for Iraq, and the United Nations country page for Iraq, do not provide evidence that Iraq has allocated national funds to improve capacity to address epidemic threats within the past three years. [2, 3, 4, 5, 6, 7] Further, the Prime Minister's office makes no mention of the budget on its website online. [8] Nor does the website of the Government of Iraq share access to the national budget. [9] The World Bank's 2014 "Republic of Iraq Public Expenditure Review" reveals that Iraq has been underspending on health relative to other countries rich in resources, but also relative to middle income countries and richer ones. The report describes Iraq's fragile health situation by stating that "a lot of laboratory and medical equipment is currently out of order at most hospitals and medical centers. Most health centers and hospitals are also suffering a shortage in doctors, dentists, pharmacists, and other medical cadres. The report also found that health departments inside the borders of the Baghdad Municipality

and the provinces failed to achieve any progress in fighting contagious diseases or in implementing inoculating campaigns to prevent them". No evidence was found to indicate that Iraq has allocated national funds to improve capacity to address epidemic threats within the past three years. [10]

- [1] Joint Coordination and Monitoring Centre. [<http://jcmc.gov.iq/>]. Accessed 2 February 2021.
- [2] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 2 February 2021.
- [3] Iraqi Ministry of Health. Public Health Directorate. "A brief description of the Central [Public] Health Laboratory". [[http://phd.iq/CMS.php?CMS\\_P=173](http://phd.iq/CMS.php?CMS_P=173)]. Accessed 1 February 2021.
- [4] Iraqi Ministry of Health. Public Health Directorate. "Centre for Disease Control". [[http://www.phd.iq/CMS.php?CMS\\_P=260](http://www.phd.iq/CMS.php?CMS_P=260)]. Accessed 1 February 2021.
- [5] Iraqi Ministry of Agriculture. [<http://www.zeraa.gov.iq/>]. Accessed 2 February 2021.
- [6] World Health Organisation (WHO). Regional Office for the Eastern Mediterranean. "Iraq" [<http://www.emro.who.int/countries/irq/index.html>]. Accessed 2 February 2021.
- [7] United Nations Iraq. Press Releases and Statements. [[http://www.uniraq.org/index.php?option=com\\_k2&view=itemlist&layout=category&task=category&id=110&Itemid=605&language=en](http://www.uniraq.org/index.php?option=com_k2&view=itemlist&layout=category&task=category&id=110&Itemid=605&language=en)]. Accessed 2 February 2021.
- [8] Iraqi Prime Minister's Office. [<https://www.pmo.iq/pme/indexe.htm>]. Accessed 2 February 2021.
- [9] Government of Iraq. [<https://gds.gov.iq/cabinet-discusses-draft-2019-federal-budget/>]. Accessed 2 February 2021.
- [10] World Bank. 2014. "Republic of Iraq Public Expenditure Review". [<http://documents1.worldbank.org/curated/en/611781468253505876/pdf/Republic-of-Iraq-Public-expenditure-review-toward-more-efficient-spending-for-better-service-delivery.pdf>]. Accessed 2 February 2021.

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

### 5.5.2a

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

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

Current Year Score: 0

2021

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

### 5.5.2b

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

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

Current Year Score: 0

2021

OIE PVS assessments

## 5.5.3 Financing for emergency response

### 5.5.3a

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

Yes = 1, No = 0

**Current Year Score: 0**

There is insufficient publicly available evidence that Iraq has a special emergency public funding mechanism that it can use during a public health emergency.

The Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, states that a "US\$ 40 million emergency fund made available for the Minister of Health to release during an emergency, although funds are subject to availability". [1] However, the JEE adds that the "emergency budget line is not inclusive of all expenses during an emergency" and that "budget lines are not sufficiently flexible to cover various response activities based on the type of event". [1] Thus this is insufficient evidence of a publicly identified special emergency public financing mechanism and funds which the country can access in the face of public health emergency. [1]

According to the World Bank International Development Association website, Iraq is not an eligible country. [2] As of 2017, Iraq has four active grants through the Global Facility for Disaster Reduction and Recovery that is dedicated to helping Iraq to: "build institutional capacity to identify, assess, and understand disaster and climate risks in terms of their economic and fiscal impact; strengthen disaster emergency preparedness efforts; and, improve Iraq's infrastructure resilience." [3] However, this fund is intended for one-time use, and it does not appear to be available on request for use during public health emergencies. Iraq also received considerable funding through the World Bank Iraq Trust Fund after the Iraq War to facilitate the reconstruction of its critical infrastructure, but this fund was expected to have completed its work by August 2010. [4]

There is no additional evidence of a special emergency public financing mechanism that Iraq can access in the face of a public health emergency through the Ministry of Health, Central Public Health Laboratory, Centre for Disease Control, Ministry of the Interior, Ministry of Defence, Ministry of Finance, the Joint Coordination and Monitoring Centre, the World Bank Pandemic Emergency Financing Facility, the World Health Organisation (WHO) country page for Iraq, or in relevant academic studies and media sources. [5, 6, 7, 8, 9, 10, 11, 12, 13]

[1] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 2 February 2021.

[2] World Bank. International Development Association. "Borrowing Countries". [<http://ida.worldbank.org/about/borrowing-countries>]. Accessed 1 February 2021.

[3] Global Facility for Disaster Reduction and Recovery. "Iraq". [<https://www.gfdrr.org/en/iraq>]. Accessed 2 February 2021.

[4] World Bank Iraq Trust Fund. 24 June 2008. "International Reconstruction Fund Facility for Iraq". [<http://siteresources.worldbank.org/IRFFI/Resources/InterimReport0625.pdf>]. Accessed 2 February 2021.

[5] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 2 February 2021.

- [6] Iraqi Ministry of Health. Public Health Directorate. "A brief description of the Central [Public] Health Laboratory". [[http://phd.iq/CMS.php?CMS\\_P=173](http://phd.iq/CMS.php?CMS_P=173)]. Accessed 2 February 2021.
- [7] Iraqi Ministry of Health. Public Health Directorate. "Centre for Disease Control". [[http://www.phd.iq/CMS.php?CMS\\_P=260](http://www.phd.iq/CMS.php?CMS_P=260)]. Accessed 2 February 2021.
- [8] Iraqi Ministry of the Interior. [<https://moi.gov.iq/>]. Accessed 2 February 2021.
- [9] Iraqi Ministry of Defence. [<https://www.mod.mil.iq/>]. Accessed 2 February 2021.
- [10] Iraqi Ministry of Finance. [<http://mof.gov.iq/Pages/MainMof.aspx>]. Accessed 2 February 2021.
- [11] Joint Coordination and Monitoring Centre. "Network of Representatives of the Joint Coordination and Monitoring Centre". [[http://jcmc.gov.iq/?page\\_id=2565](http://jcmc.gov.iq/?page_id=2565)]. Accessed 2 February 2021.
- [12] World Bank Pandemic Emergency Financing Facility. December 2017. "Operational Brief for Eligible Countries". [<http://pubdocs.worldbank.org/en/119961516647620597/PEF-Operational-Brief-Dec-2017.pdf>]. Accessed 2 February 2021.
- [13] World Health Organisation (WHO). Regional Office for the Eastern Mediterranean. "Iraq". [<http://www.emro.who.int/countries/irq/index.html>]. Accessed 2 February 2021.

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

### 5.5.4a

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

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

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

**Current Year Score: 0**

There is no publicly available evidence that senior leaders in Iraq have made a public commitment to either improve Iraq's own domestic capacity to address epidemic threats by expanding financing or requesting support to improve capacity with in the past three years, and there is no publicly available evidence that senior leaders in Iraq have made a public commitment to support the improvement of the capacity of other countries to handle epidemic threats.

Between January 2014 and January 2016, Iraq received funding through the Cooperative Biological Engagement Program (CBEP) which was intended to help improve its laboratory, surveillance, and response capacity to handle infectious disease threats, particularly those of a biological nature. [1] In early February 2019, Iraqi medical authorities requested support in the form of shipments of medication through Jordan for an acute respiratory infection outbreak. [2] However, it is not clear whether these requests were made by senior government leadership or were pursuant to a formal commitment.

According to the United Nations Population Fund, Iraq has received grant money to improve its public health infrastructure, among other goals, in 2018. [3] However, this funding does not appear to specifically address epidemics. Additionally, Iraq has received emergency funding for the control of avian influenza through the UN Food and Agriculture Organisation between 2005 and 2007, but there is no indication that this funding is up to date. [4]

The Joint Coordination and Monitoring Centre, which controls crisis management and disaster preparedness in Iraq, works with international organizations, but there is no publicly available evidence that it receives external grant support or that senior leaders have made commitments to seek out this external support. [5] There is no other evidence that senior leaders in Iraq have made a commitment to support other countries to improve their capacity to address epidemic threats or Iraq's

own capacity to address epidemic threats through the Ministry of Health, Ministry of Foreign Affairs, the World Health Organisation (WHO) country page for Iraq, or the United Nations country page for Iraq. [6, 7, 8, 9]

The Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, does not provide additional evidence in this regard. [10] Conducting an online search on the website of the Iraqi News Agency, BBC and CNN, does not provide additional evidence either. [11, 12, 13] Note that at end of January 2021, Iraq has requested emergency assistance from the International Monetary Fund (IMF) to deal with budgetary financing issues as a result of lower energy prices, and talks are ongoing. However, there is no evidence that this relates specifically to addressing epidemic threats. [14]

- [1] University Research Co. 2016. "Fact Sheet: The Cooperative Biological Engagement Program (CBEP) - Iraq". [<https://www.urc-chs.com/sites/default/files/Fact%20Sheet%20-%20CBEP%20Iraq%20Final%202016.pdf>]. Accessed 2 February 2021.
- [2] United Nations Iraq. 13 February 2019. "WHO inter-country cooperation yields rich health dividends". [[http://www.uniraq.org/index.php?option=com\\_k2&view=item&id=10434:who-inter-country-cooperation-yields-rich-health-dividends&Itemid=605&lang=en](http://www.uniraq.org/index.php?option=com_k2&view=item&id=10434:who-inter-country-cooperation-yields-rich-health-dividends&Itemid=605&lang=en)]. Accessed 2 February 2021.
- [3] United Nations Iraq. [<http://www.uniraq.org/index.php?lang=en>]. Accessed 2 February 2021.
- [4] Food and Agriculture Organisation (FAO). November 2005. "Emergency assistance for early detection and prevention of avian influenza in the Middle East region". [<http://www.fao.org/avianflu/documents/raf3005.pdf>]. Accessed 2 February 2021.
- [5] Joint Coordination and Monitoring Centre. "Network of Representatives of the Joint Coordination and Monitoring Centre". [[http://jcmc.gov.iq/?page\\_id=2565](http://jcmc.gov.iq/?page_id=2565)]. Accessed 2 February 2021.
- [6] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 2 February 2021.
- [7] Iraqi Ministry of Foreign Affairs. [<https://www.mofa.gov.iq/en>]. Accessed 2 February 2021.
- [8] World Health Organisation (WHO). Regional Office for the Eastern Mediterranean. "Iraq" [<http://www.emro.who.int/countries/irq/index.html>]. Accessed 2 February 2021.
- [9] United Nations Iraq. Press Releases and Statements. [[http://www.uniraq.org/index.php?option=com\\_k2&view=itemlist&layout=category&task=category&id=110&Itemid=605&lang=en](http://www.uniraq.org/index.php?option=com_k2&view=itemlist&layout=category&task=category&id=110&Itemid=605&lang=en)]. Accessed 2 February 2021.
- [10] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 2 February 2021.
- [11] Iraqi News Agency. "Search Results". [<https://www.ina.iq/eng/search>]. Accessed 2 February 2021.
- [12] BBC. "Search Results- Iraq". [<https://www.bbc.co.uk/news/topics/cvenzmgyljrt/iraq>]. Accessed 2 February 2021.
- [13] CNN. "Search Results- Iraq". [<https://edition.cnn.com/search?q=iraq&size=10&category=us,politics,world,opinion,health>]. Accessed 2 February 2021.
- [14] Kanishka Singh. "IMF says Iraq has requested emergency assistance, talks ongoing". January 25, 2021. Reuters. [<https://www.reuters.com/article/iraq-imf-loans-int-idUSKBN29T0TW>]. Accessed 2 February 2021.

### 5.5.4b

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

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

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

**Current Year Score: 1**

There is sufficient publicly available evidence that shows that Iraq has requested financing or technical support from donors to improve its own domestic capacity to address epidemic threats in the past three years; additionally, there is no publicly available evidence that Iraq has provided other countries with financing or technical support to improve capacity to address epidemic threats in the past three years.

Between January 2014 and January 2016, Iraq received funding through the Cooperative Biological Engagement Program (CBEP) which was intended to help improve its laboratory, surveillance, and response capacity to handle infectious disease threats, particularly those of a biological nature. [1] This support appears to have been implemented and incorporated into a National Biorisk Management System. However, there is no evidence this happened via public statements by government leaders, policy documents, or press releases. [2]

In early February 2019, Iraq requested support in the form of shipments of medication through Jordan for an acute respiratory infection outbreak. [3] According to the Global Health Security tracking dashboard, Iraq has received an estimated USD 92.19 million in disbursed funds and around USD 57.1 million in committed funds during 2018 and 2019 to build the capacity of its emergency preparedness and response services from numerous international donors, including Canada, the World Bank, the Food and Agriculture Organisation, the Bill and Melinda Gates Foundation, Italy, and Norway. Data for year 2020 is not available. While the data breakdown by core capacity and donor is based on a 2014-2020 timeline, the majority of the funding goes towards "Emergency Response Operations" (The Joint External Evaluation indicator R.2), followed by "Real Time Surveillance" (JEE indicator D.2), "Antimicrobial Resistance" (JEE indicator P.3), and "Zoonotic Disease" (JEE indicator P.4) [4]

There is no other evidence that Iraq has requested financing or technical support from donors to improve its own domestic capacity to address epidemic threats; nor is there evidence that Iraq has supported other countries with financing or technical support to improve capacity to address epidemic threats in the past three years through the Ministry of Health, Ministry of Foreign Affairs, the World Health Organisation (WHO) country page for Iraq, or the United Nations country page for Iraq. [5, 6, 7, 8]

The Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, does not provide additional evidence in this regard. [9] Conducting an online search on the website of the Iraqi News Agency, BBC and CNN, does not provide additional evidence either. [10, 11, 12] Note that at end of January 2021, Iraq has requested emergency assistance from the International Monetary Fund (IMF) to deal with budgetary financing issues as a result of lower energy prices, and talks are ongoing. However, there is no evidence that this relates specifically to addressing epidemic threats. [13]

[1] University Research Co. 2016. "Fact Sheet: The Cooperative Biological Engagement Program (CBEP) - Iraq". [<https://www.urc-chs.com/sites/default/files/Fact%20Sheet%20-%20CBEP%20Iraq%20Final%202016.pdf>]. Accessed 2 February 2021.

[2] Al Jewari, Mahdi, et al. 26 February 2016. "Strengthening Biosecurity in Iraq: Development of a National Biorisk Management System". [<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4767897/>]. Accessed 2 February 2021.

[3] United Nations Iraq. 13 February 2019. "WHO inter-country cooperation yields rich health dividends". [[http://www.uniraq.org/index.php?option=com\\_k2&view=item&id=10434:who-inter-country-cooperation-yields-rich-health-dividends&Itemid=605&lang=en](http://www.uniraq.org/index.php?option=com_k2&view=item&id=10434:who-inter-country-cooperation-yields-rich-health-dividends&Itemid=605&lang=en)]. Accessed 2 February 2021.

[4] Global Health Security Funding Tracker. [<https://tracking.ghscosting.org/details/968/recipient>]. Accessed 2 February 2021.

[5] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 2 February 2021.

[6] Iraqi Ministry of Foreign Affairs. [<https://www.mofa.gov.iq/en>]. Accessed 2 February 2021.

[7] World Health Organisation (WHO). Regional Office for the Eastern Mediterranean. "Iraq" [<http://www.emro.who.int/countries/irq/index.html>]. Accessed 2 February 2021.

[8] United Nations Iraq. Press Releases and Statements.

[[http://www.uniraq.org/index.php?option=com\\_k2&view=itemlist&layout=category&task=category&id=110&Itemid=605&lang=en](http://www.uniraq.org/index.php?option=com_k2&view=itemlist&layout=category&task=category&id=110&Itemid=605&lang=en)]. Accessed 2 February 2021.

[9] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 2 February 2021.

[10] Iraqi News Agency. "Search Results". [<https://www.ina.iq/eng/search>]. Accessed 2 February 2021.

[11] BBC. "Search Results- Iraq". [<https://www.bbc.co.uk/news/topics/cvenzmgyljrt/iraq>]. Accessed 2 February 2021.

[12] CNN. "Search Results- Iraq".

[<https://edition.cnn.com/search?q=iraq&size=10&category=us,politics,world,opinion,health>]. Accessed 2 February 2021.

[13] Kanishka Singh. "IMF says Iraq has requested emergency assistance, talks ongoing". January 25, 2021. Reuters.

[<https://www.reuters.com/article/iraq-imf-loans-int-idUSKBN29T0TW>]. Accessed 2 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**

There is no publicly available evidence that Iraq has a plan or policy for sharing genetic data, epidemiological data, clinical specimens, and/or isolated specimens with international organisations and/or countries beyond influenza sample sharing. The Joint External Evaluation (JEE) mission report of the Republic of Iraq, which was published in March 2019, does not provide information that shows that Iraq has a 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. [1] There is no information regarding a policy to share genetic data, epidemiological data, clinical specimens or otherwise other than influenza samples through the Ministry of Health, Ministry of Agriculture, Ministry of Higher Education and Scientific Research, Central Public Health Laboratory, Centre for Disease Control, Ministry of

Foreign Affairs, or in any relevant studies or media sources. [2, 3, 4, 5, 6, 7]

- [1] World Health Organisation (WHO). March 2019. "Joint External Evaluation of IHR Core Capacities of the Republic of Iraq Mission Report 12-17 March 2019". [<https://apps.who.int/iris/bitstream/handle/10665/325488/WHO-WHE-CPI-2019.61-eng.pdf?sequence=1>]. Accessed 2 February 2021.
- [2] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 2 February 2021.
- [3] Iraqi Ministry of Agriculture. [<http://www.zeraa.gov.iq/>]. Accessed 2 February 2021.
- [4] Iraqi Ministry of Higher Education and Scientific Research. [<http://moheer.gov.iq/ar/>]. Accessed 2 February 2021.
- [5] Iraqi Ministry of Health. Public Health Directorate. "A brief description of the Central [Public] Health Laboratory". [[http://phd.iq/CMS.php?CMS\\_P=173](http://phd.iq/CMS.php?CMS_P=173)]. Accessed 2 February 2021.
- [6] Iraqi Ministry of Health. Public Health Directorate. "Centre for Disease Control". [[http://www.phd.iq/CMS.php?CMS\\_P=260](http://www.phd.iq/CMS.php?CMS_P=260)]. Accessed 2 February 2021.
- [7] Iraqi Ministry of Foreign Affairs. [<https://www.mofa.gov.iq/en>]. Accessed 2 February 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 publicly available evidence that Iraq has not shared samples in accordance with the pandemic influenza preparedness (PIP) framework in the past two years. According to the World Health Organisation (WHO) country page for Iraq, it readily cooperates with international bodies such as the WHO in sharing influenza samples once notifiable infections are detected. [1] For example, Iraq immediately notified the WHO of a sample that tested positive for H1N1 on 13 February 2019 and on numerous other occasions regarding cases of highly pathogenic avian influenza cases within the past year as reported through the World Organisation for Animal Health (OIE) weekly disease updates. [2, 3] There is no evidence that Iraq has failed to share samples in accordance with the PIP framework through the Ministry of Health or through international and local media sources. [4]

- [1] World Health Organisation (WHO). Regional Office for the Eastern Mediterranean. "Iraq". [<http://www.emro.who.int/countries/irq/index.html>]. Accessed 2 February 2021.
- [2] World Health Organisation (WHO). 13 February 2019. Iraq. "WHO intercountry cooperation yields rich health dividends". [<http://www.emro.who.int/irq/iraq-news/who-intercountry-cooperation-yields-rich-health-dividends.html>]. Accessed 2 February 2021.
- [3] World Organisation for Animal Health (OIE). Weekly Disease Information. [[https://www.oie.int/wahis\\_2/public/wahid.php/Diseaseinformation/WI](https://www.oie.int/wahis_2/public/wahid.php/Diseaseinformation/WI)]. Accessed 2 February 2021.
- [4] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 2 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 publicly available evidence that Iraq has not shared pandemic pathogen samples during an outbreak within the past two years. According to the World Health Organisation (WHO) country page for Iraq, it readily cooperates with international bodies such as the WHO in disease samples, including for infectious diseases like leishmaniasis and measles. In light of the Covid-19 pandemic, there is no publicly available information that shows that Iraq has not shared pandemic pathogen samples during an outbreak in the past two years [1, 2] There is no evidence that Iraq has failed to share samples in accordance with the PIP framework through the Ministry of Health or through international and local media sources such as Al Jazeera, Baghdad Post, and the Iraqi National News Agency. [3]

[1] World Health Organisation (WHO). Regional Office for the Eastern Mediterranean. "Iraq".

[<http://www.emro.who.int/countries/irq/index.html>]. Accessed 2 February 2021.

[2] World Health Organisation (WHO). Iraq. "News". [<http://www.emro.who.int/irq/iraq-news/>]. Accessed 2 February 2021.

[3] Iraqi Ministry of Health. [<https://moh.gov.iq/>]. Accessed 2 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: 2

2020

Economist Intelligence

##### 6.1.1b

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

Input number

Current Year Score: 0

2020

Economist Intelligence

##### 6.1.1c

Excessive bureaucracy/red tape (Economist Intelligence score; 0-4, where 4=best)

Input number

Current Year Score: 0

2020

Economist Intelligence

### **6.1.1d**

Vested interests/cronyism (Economist Intelligence score; 0-4, where 4=best)

Input number

Current Year Score: 0

2020

Economist Intelligence

### **6.1.1e**

Country score on Corruption Perception Index (0-100, where 100=best)

Input number

Current Year Score: 21

2020

Transparency International

### **6.1.1f**

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

Input number

Current Year Score: 1

2020

Economist Intelligence

### **6.1.1g**

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

Input number

Current Year Score: 0

2020

Economist Intelligence

## 6.1.2 Orderly transfers of power

### 6.1.2a

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

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

**Current Year Score: 1**

2021

Economist Intelligence

## 6.1.3 Risk of social unrest

### 6.1.3a

**What is the risk of disruptive social unrest?**

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

**Current Year Score: 0**

2021

Economist Intelligence

## 6.1.4 Illicit activities by non-state actors

### 6.1.4a

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

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

**Current Year Score: 0**

2021

Economist Intelligence

### 6.1.4b

**What is the level of illicit arms flows within the country?**

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

**Current Year Score: 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: 0**

2021

Economist Intelligence

## 6.1.5 Armed conflict

### 6.1.5a

**Is this country presently subject to an armed conflict, or is there at least a moderate risk of such conflict in the future?**

No armed conflict exists = 4, Yes; sporadic conflict = 3, Yes; incursional conflict = 2, Yes, low-level insurgency = 1, Yes; territorial conflict = 0

**Current Year Score: 1**

2021

Economist Intelligence

## 6.1.6 Government territorial control

### 6.1.6a

**Does the government's authority extend over the full territory of the country?**

Yes = 1, No = 0

**Current Year Score: 0**

2021

Economist Intelligence

## 6.1.7 International tensions

### 6.1.7a

**Is there a threat that international disputes/tensions could have a negative effect?**

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

**Current Year Score: 0**

2021

Economist Intelligence

## 6.2 SOCIO-ECONOMIC RESILIENCE

### 6.2.1 Literacy

#### 6.2.1a

Adult literacy rate, population 15+ years, both sexes (%)

Input number

Current Year Score: 85.6

2017

United Nations Development Programme (UNDP); United Nations Educational, Scientific and Cultural Organization (UNESCO);  
The Economist Intelligence Unit

### 6.2.2 Gender equality

#### 6.2.2a

United Nations Development Programme (UNDP) Gender Inequality Index score

Input number

Current Year Score: 0.46

2018

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

### 6.2.3 Social inclusion

#### 6.2.3a

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

Input number

Current Year Score: 0.3

2012

World Bank; Economist Impact

#### 6.2.3b

Share of employment in the informal sector

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

**Current Year Score: 2**

The share of employment in the informal sector in Iraq is 53.7% (2015).

According to the Arab NGO Network for Development's 2016 publication, "Informal Employment", the share of employment in the informal sector in Iraq is 53.7% (2015). The study states that "the number of informal workers reached 188 091 4 million workers (men and women confounded), and constituted %53.7of the total number of workers. The percentage of informal workers reached 55% of the total number of male workers 47. 8% of the total of female workers". [1] Other sources such as the ILOSTAT database and the World Bank fail to provide any measures of the share of employment in the informal sector in Iraq. [2, 3]

[1] Arab NGO Network for Development (ANND). "Informal Employment". 2016.

[https://www.fordfoundation.org/media/4555/arab-watch-on-economic-and-social-rights-2016-informal-labor.pdf]. Accessed February 2, 2021.

[2] World Bank Data. [https://data.worldbank.org/indicator/SL.ISV.IFRM.ZS?locations=IQ]. Accessed February 2, 2021.

[3] ILOSTAT. [https://ilostat.ilo.org/topics/informality/]. Accessed February 2, 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: 0**

2021

Economist Intelligence Democracy Index

## 6.2.5 Local media and reporting

### 6.2.5a

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

Input number

**Current Year Score: 0**

2021

Economist Intelligence Democracy Index

## 6.2.6 Inequality

### 6.2.6a

Gini coefficient

Scored 0-1, where 0=best

**Current Year Score: 0.29**

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: 0**

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: 1**

2021

Economist Intelligence

### 6.3.3 Adequacy of power network

#### 6.3.3a

What is the risk that power shortages could be disruptive?

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

Current Year Score: 0

2021

Economist Intelligence

## 6.4 ENVIRONMENTAL RISKS

### 6.4.1 Urbanization

#### 6.4.1a

Urban population (% of total population)

Input number

Current Year Score: 70.68

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: 0

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: 70.45

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: 610.8

2019

WHO

#### 6.5.1c

Population ages 65 and above (% of total population)

Input number

Current Year Score: 3.4

2019

World Bank

#### 6.5.1d

Prevalence of current tobacco use (% of adults)

Input number

Current Year Score: 22.2

2018

World Bank

### **6.5.1e**

#### **Prevalence of obesity among adults**

Input number

Current Year Score: 30.4

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: 96.53

2017

UNICEF; Economist Impact

### **6.5.2b**

#### **Percentage of homes with access to at least basic sanitation facilities**

Input number

Current Year Score: 94.12

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: 344.6

2018

WHO Global Health Expenditure database

## 6.5.4 Trust in medical and health advice

### 6.5.4a

#### Trust medical and health advice from the government

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

**Current Year Score: 1**

2018

Wellcome Trust Global Monitor 2018

### 6.5.4b

#### Trust medical and health advice from medical workers

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

**Current Year Score: 1**

2018

Wellcome Trust Global Monitor 2018