Turkmenistan

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

CATEGORY 1: PREVENTING THE EMERGENCE OR RELEASE OF PATHOGENS WITH POTENTIAL FOR INTERNATIONAL CONCERN 4

1.1 Antimicrobial resistance (AMR) 4

1.2 Zoonotic disease 7

1.3 Biosecurity 13

1.4 Biosafety 21

1.5 Dual-use research and culture of responsible science 23

1.6 Immunization 27

CATEGORY 2: EARLY DETECTION AND REPORTING FOR EPIDEMICS OF POTENTIAL INTERNATIONAL CONCERN 27

2.1 Laboratory systems strength and quality 27

2.2 Laboratory supply chains 30

2.3 Real-time surveillance and reporting 32

2.4 Surveillance data accessibility and transparency 34

2.5 Case-based investigation 41

2.6 Epidemiology workforce 44

CATEGORY 3: RAPID RESPONSE TO AND MITIGATION OF THE SPREAD OF AN EPIDEMIC 45

3.1 Emergency preparedness and response planning 45

3.2 Exercising response plans 50

3.3 Emergency response operation 53

3.4 Linking public health and security authorities 55

3.5 Risk communications 56

3.6 Access to communications infrastructure 60

3.7 Trade and travel restrictions 61

CATEGORY 4: SUFFICIENT AND ROBUST HEALTH SECTOR TO TREAT THE SICK AND PROTECT HEALTH WORKERS 64

4.1 Health capacity in clinics, hospitals, and community care centers 64

4.2 Supply chain for health system and healthcare workers 67

4.3 Medical countermeasures and personnel deployment 71

4.4 Healthcare access 72

4.5 Communications with healthcare workers during a public health emergency 74

4.6 Infection control practices and availability of equipment 75

4.7 Capacity to test and approve new medical countermeasures 76

CATEGORY 5: COMMITMENTS TO IMPROVING NATIONAL CAPACITY, FINANCING PLANS TO ADDRESS GAPS, AND ADHERING TO GLOBAL NORMS 79

5.1 International Health Regulations (IHR) reporting compliance and disaster risk reduction 79

5.2 Cross-border agreements on public health and animal health emergency response 80

5.3 International commitments 81

5.4 Joint External Evaluation (JEE) and Performance of Veterinary Services Pathway (PVS) 83

5.5 Financing 84

5.6 Commitment to sharing of genetic and biological data and specimens 87

CATEGORY 6: OVERALL RISK ENVIRONMENT AND VULNERABILITY TO BIOLOGICAL THREATS 89

6.1 Political and security risk 89

6.2 Socio-economic resilience 93

6.3 Infrastructure adequacy 95

6.4 Environmental risks 96

6.5 Public health vulnerabilities 97

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

1.1 ANTIMICROBIAL RESISTANCE (AMR)

1.1.1 AMR surveillance, detection, and reporting

1.1.1a

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

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

Current Year Score: 2

Turkmenistan has a current national AMR plan that covers surveillance, detection, and reporting. The National Strategy for Countering the Development of Antimicrobial Resistance for 2017-2025 was adopted in November 2017 [1]. The strategy notes that Turkmenistan's current system suffers from technical and technological deficiencies, and has a plan of action for improvment. It contains measures for a surveillance system, to improve diagnostics and detection, and for a reporting system. Measures include: designating sentinel surveillance institutions, improving the guidelines for AMR surveillance, developing new surveillance tools (such as new software), training professionals, establishing an integrated system for humans, food, and animals, and considering participation in regional and global surveillance networks [1]. The plan was adopted on the back of the 2016 Joint External Evaluation report, which recommends improving detection and reporting of priority ARM pathogens [2]. Turkmenistan is also a participating country in the Central Asian and Eastern European Surveillance of Antimicrobial Resistance (CAESAR) network [3,4].

[1] World Health Organization (WHO). "Library of national action plans". [https://www.who.int/antimicrobial-resistance/national-action-plans/library/en/]. Accessed 30 November 2020.
[2] World Health Organization (WHO). June 2016. "Joint External Evaluation of IHR Core Capacities of Turkmenistan, Mission report: June 2016, World Health Organization". [https://apps.who.int/iris/bitstream/handle/10665/255632/WHO-WHE-CPI-2017.29-eng.pdf;jsessionid=9B832A25BB05E0944628D2472E249694?sequence=1]. Accessed 30 November 2020.
[3] World Health Organization (WHO). Central Asian and Eastern European Surveillance of Antimicrobial Resistance (CAESAR). [https://www.euro.who.int/en/health-topics/disease-prevention/antimicrobial-resistance/surveillance/central-asian-and-european-surveillance-of-antimicrobial-resistance-caesar]. Accessed 30 November 2020.
[4] World Health Organization (WHO). 2019. "Central Asian and European Surveillance of Antimicrobial Resistance Annual report 2019". [https://www.euro.who.int/__data/assets/pdf_file/0003/418863/53373-WHO-CAESAR-annual-report-2019.pdf]. Accessed 30 November 2020.

1.1.1b

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

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

Current Year Score: 1

Turkmenistan has designated laboratories capable of detecting and reporting seven of the 7+1 priority AMR pathogens listed by the World Health Organization. According to the 2016 Joint External Evaluation (JEE) report, these designated laboratories

are capable of detecting and reporting Escherichia coli, Klebsiella pneumoniae, Staphylococcus aureus, Streptococcus pneumoniae, Salmonella spp., Neisseria gonorrhoeae, Mycobacterium tuberculosis, and others. There is no explicit mention, however, of Shigella spp. The JEE report also mentions that provincial hospitals and those in the capital Ashgabat are designated as sentinel sites for public health surveillance, and they perform AMR tests [1]. The same report also notes that AMR sentinel surveillance systems for humans and animals needed to be strengthened. The National Strategy for Countering the Development of Antimicrobial Resistance for 2017-2025 contains measures for designating and developing the sentinel surveillance labs for AMR testing, but makes no mention of specific pathogens [2]. The webpage of Turkmenistan's Health Ministry says that the Center for the Control and Prevention of Infectious Diseases has a laboratory section, as well as a section for identifying and preventing the spread of infections, but does not specify which infectious diseases. However, it mentions that the center is able to treat Shigella, as well as the other priority pathogens [3]. No further evidence was found on the website of the Ministry of Health [4]. Turkmenistan did not contribute to the Central Asian and European Surveillance of Antimicrobial Resistance Annual report 2019, but it did score 4/4 in the external quality assessment (EQA), which tests its ability to identify certain pathogens [5].

[1] World Health Organization (WHO). June 2016. “Joint External Evaluation of IHR Core Capacities of Turkmenistan”. [https://apps.who.int/iris/bitstream/handle/10665/255632/WHO-WHE-CPI-2017.29-eng.pdf;jsessionid=9B832A25BB05E0944628D2472E249694?sequence=1]. Accessed 7 December 2020.
[2] World Health Organization (WHO). "Library of national action plans”. [https://www.who.int/antimicrobial-resistance/national-action-plans/library/en/]. Accessed 30 November 2020.
[3] Ministry of Health and Medical Industry. 2020. “Center for the Control and Prevention of Infectious Diseases (Центр по контролю и профилактике инфекционных заболеваний)”. [http://www.saglykhm.gov.tm/app/saglykkanuncylygy] Accessed 30 November 2020.
[4] Ministry of Health and Medical Industry. [http://www.saglykhm.gov.tm] Accessed 8 March 2021.
[5] World Health Organization (WHO). 2019. “Central Asian and European Surveillance of Antimicrobial Resistance Annual report 2019”. [https://www.euro.who.int/__data/assets/pdf_file/0003/418863/53373-WHO-CAESAR-annual-report-2019.pdf]. Accessed 30 November 2020.

1.1.1c

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence Turkmenistan conducts detection surveillance activities for antimicrobial residues or AMR organisms in soil or waterways. The webpages for the Ministry of Health and the Ministry of Agriculture and Environmental Protection do not contain information on detection surveillance for AMR organisms in soil or waterways [1, 2]. The National Strategy for Countering the Development of Antimicrobial Resistance for 2017-2025 does not make any mention of of surveilling AMR organisms in soil or waterways [3]. In its section on AMR programs in Turkmenistan, the 2016 JEE report does not mention an environmental agency that conducts detection of surveillance activities in soil or waterways, and the report notes Turkmenistan is still in need of comprehensive national legislation concerning detection and reporting of priority AMR pathogens [4]. Turkmenistan did not contribute to the Central Asian and European Surveillance of Antimicrobial Resistance Annual report 2019 [5].

[1] Ministry of Health and Medical Industry. 2020. “Center for the Control and Prevention of Infectious Diseases (Центр по контролю и профилактике инфекционных заболеваний)”. [http://www.saglykhm.gov.tm/app/saglykkanuncylygy] Accessed 30 November 2020.

[2] Ministry of Agriculture and Environmental Protection. [http://minagri.gov.tm] Accessed 30 November 2020.
[3] World Health Organization (WHO). "Library of national action plans". [https://www.who.int/antimicrobial-resistance/national-action-plans/library/en/]. Accessed 30 November 2020.
[4] World Health Organization (WHO). June 2016. "Joint External Evaluation of IHR Core Capacities of Turkmenistan". [https://apps.who.int/iris/bitstream/handle/10665/255632/WHO-WHE-CPI-2017.29-eng.pdf;jsessionid=9B832A25BB05E0944628D2472E249694?sequence=1]. Accessed 7 December 2020.
[5] World Health Organization (WHO). 2019. "Central Asian and European Surveillance of Antimicrobial Resistance Annual report 2019". [https://www.euro.who.int/__data/assets/pdf_file/0003/418863/53373-WHO-CAESAR-annual-report-2019.pdf]. Accessed 30 November 2020.

1.1.2 Antimicrobial control

1.1.2a

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

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

Current Year Score: 0

There is insufficient evidence that Turkmenistan has legislation in place that requires a prescription for antibiotic use in humans. According to a report by an independent news agency, Chronicles of Turkmenistan, a ban on the sale of antibiotics for human use without a prescription went into effect on 1 April 2019 [1]. However, the report highlights several reasons to doubt that the law will be implemented in full, including existing habits of the population and medical professionals, as well as economic factors, meaning that the unnecessary, or even unlawful, sale of antibiotics is likely to be pervasive [1]. The National Strategy for Countering the Development of Antimicrobial Resistance for 2017-2025 made clear that a law "On Pharmaceuticals and Pharmaceutical Support of the Population of Turkmenistan" needed to be developed [2]. Chronicles of Turkmenistan did not include the name of the law in its article, nor was any such related law available on Turkmenistan's legal portal or the Ministry of Health's website [1, 3, 4].

[1] Chronicles of Turkmenistan. 25 March 2019. "In Turkmenistan, the Sale of Antibiotics in Private Pharmacies will End. (Ð'
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[2] World Health Organization (WHO). "Library of national action plans". [https://www.who.int/antimicrobial-resistance/national-action-plans/library/en/]. Accessed 1 December 2020.
[3] Legislation Database of Turkmenistan. [http://www.turkmenlegaldatabase.info/ru/documents.html] Accessed 1 December 2020.
[4] Ministry of Health and Medical Industry. 2020. [http://www.saglykhm.gov.tm/app/home] Accessed 1 December 2020.

1.1.2b

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

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

Current Year Score: 0

There is insufficient evidence that Turkmenistan has legislation requiring prescriptions for antibiotic use on animals. According to the Joint External Evaluation for Turkmenistan, conducted in June 2016, Turkmenistan requires prescriptions for use of antimicrobial medicines on animals. [1] The JEE noted there are no local or private producers of antimicrobial agents in Turkmenistan, either for animals or humans, and the need to import antibiotic agents helped the Ministries of Healthcare and Agriculture keep track of usage levels. [1] The JEE also notes that there is a lack of oversight regarding how and when antibiotics are prescribed. Turkmenistan scores a 3 for sections P.3.1 - P.3.3 of the JEE, which cover antimicrobial resistance, but a 1 for P.3.4. (" Antimicrobial stewardship activities"). There is no mention of antibiotics for animals in the JEE. [1] The National Strategy for Countering the Development of Antimicrobial Resistance for 2017-2025 notes that former Soviet states often face challenges in the implementation of regulations governing the sensible use of antibiotics in animals, and states that Turkmenistan is looking into the possibility of a system where access is granted only in the case of a prescription by a veterinarian. [2] This appears to contradict the JEE. No evidence of new regulation was found on the websites of the Ministry of Health or Ministry of Agriculture and Environmental Protection. [3, 4] Neither of these websites include any information about a prohibition of use of antibiotics without a prescription, or requirements for using antibiotics on animals. [3, 4]

[1] World Health Organization (WHO). June 2016. “Joint External Evaluation of IHR Core Capacities of Turkmenistan”. [https://apps.who.int/iris/bitstream/handle/10665/255632/WHO-WHE-CPI-2017.29-eng.pdf;jsessionid=9B832A25BB05E0944628D2472E249694?sequence=1]. Accessed 7 December 2020.
[2] World Health Organization (WHO). "Library of national action plans”. [https://www.who.int/antimicrobial-resistance/national-action-plans/library/en/]. Accessed 7 December 2020.
[3] Ministry of Agriculture and Environmental Protection. [http://minagri.gov.tm]. Accessed 7 December 2020.
[4] Ministry of Health and Medical Industry. [http://www.saglykhm.gov.tm/en/]. Accessed 8 March 2020.

1.2 ZOONOTIC DISEASE

1.2.1 National planning for zoonotic diseases/pathogens

1.2.1a

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

Current Year Score: 1

Turkmenistan has a plan on zoonotic disease. According to the Joint External Evaluation (JEE) for Turkmenistan, conducted in June 2016, Turkmenistan had a comprehensive intersectoral plan to counter zoonotic infections, covering 2016 to 2020, which covered at least brucellosis and rabies [1]. The JEE also reports that Turkmenistan has been reporting its animal disease status to the World Organisation for Animal Health (OIE) since 2012 [1]. However, the zoonotic disease plan, which is not named in the JEE, could not be found online, including on the websites of Turkmenistan's Ministry of Health and Medical Industry and Ministry of Agriculture and Environmental Protection, which also contain no evidence of a plan for 2021 and beyond [2, 3]. According to independent media, Turkmenistan's government recommends the use of herbal remedies to treat zoonoses, and the country has very limited ability to deal with animal-borne diseases [4].

[1] World Health Organization (WHO). June 2016. “Joint External Evaluation of IHR Core Capacities of Turkmenistan”. [https://apps.who.int/iris/bitstream/handle/10665/255632/WHO-WHE-CPI-2017.29-eng.pdf;jsessionid=9B832A25BB05E0944628D2472E249694?sequence=1]. Accessed 7 December 2020.
[2] Ministry of Health and Medical Industry. Health Information Center of the Ministry of Health and Medical Industry.

[http://www.saglykhm.gov.tm/en/]. Accessed 7 December 2020.
[3] Ministry of Agriculture and Environmental Protection. [http://minagri.gov.tm]. Accessed 7 December 2020.
[4] Radio Free Europe/Radio Liberty. 7 December 2019. "Analysis: Turkmenistan Jumps From Regional Pariah To Regional Health Risk With Home Remedies For Animal Diseases". [https://www.rferl.org/a/qishloq-ovozi-turkmenistan-health-risk-berdymukhammedov-animal-diseases-herbal-remedies/30313192.html]. Accessed 7 December 2020.

1.2.1b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that Turkmenistan has a risk reduction and identification strategy for zoonotic spillover events.

According to the Joint External Evaluation (JEE) for Turkmenistan, conducted in June 2016, Turkmenistan has a comprehensive intersectoral plan to counter zoonotic infections for 2016-2020, but the report does not explicitly confirm whether this plan covers risk identification and risk reduction of spillover plans [1]. The JEE reports Turkmenistan has been reporting its animal disease status to the World Organisation for Animal Health (OIE) since 2012 [1]. However, the zoonotic disease plan, which is not named in the JEE, could not be found online, including on the websites of Turkmenistan's Ministry of Health and Medical Industry and Ministry of Agriculture and Environmental Protection, which also contain no evidence of a plan for 2021 and beyond [2, 3]. Moreover, according to independent media, Turkmenistan recommends the use of herbal remedies to treat zoonotic diseases, and the country has limited capacity to deal with animal-borne diseases, or to identify and reduce spillover events [4].

[1] World Health Organization (WHO). June 2016. "Joint External Evaluation of IHR Core Capacities of Turkmenistan". [https://apps.who.int/iris/bitstream/handle/10665/255632/WHO-WHE-CPI-2017.29-eng.pdf;jsessionid=9B832A25BB05E0944628D2472E249694?sequence=1]. Accessed 7 December 2020.
[2] Ministry of Health and Medical Industry. Health Information Center of the Ministry of Health and Medical Industry. [http://www.saglykhm.gov.tm/en/]. Accessed 7 December 2020.
[3] Ministry of Agriculture and Environmental Protection. [http://minagri.gov.tm]. Accessed 7 December 2020.
[4] Radio Free Europe/Radio Liberty. 7 December 2019. "Analysis: Turkmenistan Jumps From Regional Pariah To Regional Health Risk With Home Remedies For Animal Diseases". [https://www.rferl.org/a/qishloq-ovozi-turkmenistan-health-risk-berdymukhammedov-animal-diseases-herbal-remedies/30313192.html]. Accessed 7 December 2020.

1.2.1c

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

Yes = 1 , No = 0

Current Year Score: 0

There is no public evidence that Turkmenistan has programs or strategies that provide for both the surveillance and control of multiple zoonotic diseases. According to the Joint External Evaluation for Turkmenistan, conducted in June 2016, the country only has surveillance systems for detecting rabies and brucellosis, reliance on passive surveillance is substantial, and even that is rendered less effective due to an insufficient legal framework and standard operating procedures, as well as

other factors such as inadequacies in the data collection and reporting systems, an absence of dependable animal identification and tracking systems, and lack of incentive for farmers to inform officials about outbreaks of zoonotic diseases [1]. The webpage of Turkmenistan's Ministry of Healthcare includes reference to a department for zoology, parasitology and animal care that is responsible for organizing and carrying out collection of materials from the field for analysis in the central laboratory, but the site specifically mentions only cholera, while adding that analysis also includes other especially dangerous diseases [2]. There is no information about zoonotic disease policies on the webpage of the Ministry of Agriculture and Environmental Protection [3]. The website for the OIE PVS Evaluation Report does not list Turkmenistan as having agreed to make its report on strengthening veterinary services available to the public [4]. Radio Free Europe/Radio Liberty (RFE/RL) notes that Turkmenistan does not have sufficient capacity to surveil and control multiple zoonotic diseases [5].

[1] World Health Organization (WHO). June 2016. "Joint External Evaluation of IHR Core Capacities of Turkmenistan". [https://apps.who.int/iris/bitstream/handle/10665/255632/WHO-WHE-CPI-2017.29-eng.pdf;jsessionid=9B832A25BB05E0944628D2472E249694?sequence=1]. Accessed 7 December 2020.
[2] Ministry of Health and Medical Industry. Health Information Center of the Ministry of Health and Medical Industry. 2019. "Preventative Center on Particularly Dangerous Infections". [http://www.saglykhm.gov.tm/en/profilaktika-infektsionnyh-zabolevaniy-/] Accessed 7 December 2020.
[3] Ministry of Agriculture and Environmental Protection. [http://minagri.gov.tm] Accessed 7 December 2020.
[4] World Organisation for Animal Health. 2019. "OIE OVS Evaluation Reports". [http://www.oie.int/solidarity/pvs-evaluations/pvs-evaluation-reports/] Accessed 7 December 2020.
[5] Radio Free Europe/Radio Liberty. 7 December 2019. "Analysis: Turkmenistan Jumps From Regional Pariah To Regional Health Risk With Home Remedies For Animal Diseases". [https://www.rferl.org/a/qishloq-ovozi-turkmenistan-health-risk-berdymukhammedov-animal-diseases-herbal-remedies/30313192.html]. Accessed 7 December 2020.

1.2.1d

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

Current Year Score: 0

There is not sufficient publicly available evidence that Turkmenistan has an agency dedicated to zoonotic disease that functions across ministries. The State Sanitary Epidemiological Service (SSES), part of the Ministry of Health and Medical Industry, is the National IHR Focal Point for Turkmenistan. According to the Joint External Evaluation for Turkmenistan, conducted in June 2016, if there is an outbreak, the Ministry of Health would convene an Emergency Counter-Epidemic Commission under the Cabinet of Ministers meeting with the technical leadership of the SSES. [1] The website for Turkmenistan's Ministry of Health and Medical Industry also reports that the department of zoology, parasitology and animal care is part of the Special Center for Prevention of Dangerous Infectious Diseases, but the website does not describe how the department interacts with ministries or the SSES, its ability to convene a meeting of the Emergency Counter-Epidemic Commission, or information on any of its functions. [2] No further information was found on the website of the Ministry of Health. [3] The webpage for the Ministry of Agriculture and Environmental Protection has no information about the SSES. [4] Prior to the SSES being tasked to oversee counter measures against outbreaks of zoonotic diseases, that duty was performed by the State Veterinary Department (SVD), which was overseen by the Ministry of Agriculture. [4] A 2008 report from the World Bank noted no specific Ministry of Agriculture funds had been earmarked for the SVD's functions since 1998, and that the number of veterinarians in the country had dropped from some 3,500 prior to 1998, to 437 by 2008. [5]

[1] World Health Organization (WHO). June 2016. "Joint External Evaluation of IHR Core Capacities of Turkmenistan". [https://apps.who.int/iris/bitstream/handle/10665/255632/WHO-WHE-CPI-2017.29-eng.pdf;jsessionid=9B832A25BB05E0944628D2472E249694?sequence=1]. Accessed 7 December 2020.

[2] Ministry of Health and Medical Industry. Health Information Center of the Ministry of Health and Medical Industry. Special Center for Prevention of Dangerous Infectious Diseases. [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 7 December 2020.
[3] Ministry of Health and Medical Industry. [http://www.saglykhm.gov.tm]. Accessed 8 March 2020.
[4] Ministry of Agriculture and Environmental Protection. [http://minagri.gov.tm]. Accessed 7 December 2020.
[5] World Bank. 2008. "Turkmenistan Avian Influenza Control and Human Pandemic Preparedness and Response Project Environmental Assessment and Management Plan".
[http://documents.worldbank.org/curated/en/204911468317052951/pdf/E18630EA0P1056620Box327358B01public1.pdf]. Accessed 7 December 2020.

1.2.2 Surveillance systems for zoonotic diseases/pathogens

1.2.2a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that Turkmenistan has a mechanism for owners of livestock to conduct or report on disease surveillance to the government. According to the Joint External Evaluation for Turkmenistan, conducted in June 2016, Turkmenistan's surveillance system consisted mainly of passive surveillance, and suffered from a lack of motivation for farmers to report disease [1]. Anecdotal evidence gathered from interviews with farmers in areas where outbreaks have occurred suggests that even when livestock owners do report disease among their herds, state officials have been slow to respond, have sometimes been unable to provide any medications, and have been reluctant to inform local populations about the nature of the outbreak [2, 3, 4]. The webpages for the Ministry of Health and the Medical Industry and the Ministry of Agriculture and Environmental Protection do not have information on how owners of livestock should monitor for or report on diseases among their animals [5, 6].

[1] World Health Organization (WHO). June 2016. "Joint External Evaluation of IHR Core Capacities of Turkmenistan".
[https://apps.who.int/iris/bitstream/handle/10665/255632/WHO-WHE-CPI-2017.29-eng.pdf;jsessionid=9B832A25BB05E0944628D2472E249694?sequence=1]. Accessed 7 December 2020.
[2] Radio Free Europe/Radio Liberty, Turkmen Service. 21 December 2017. "Herds are dying from an unknown infection in Dashoguz (В Дашогузе от неизвестной инфекции погибли десятки голов домашнего скота)".
[https://rus.azathabar.com/a/28931172.html]. Accessed 7 December 2020.
[3] Radio Free Europe/Radio Liberty, Turkmen Service. 31 October 2018. "Mass outbreak of disease among camels observed in Balkan Province (В Балканском велаяте наблюдается массовое заболевание верблюдов)".
[https://rus.azathabar.com/a/29573675.html]. Accessed 7 December 2020.
[4] Radio Free Europe/Radio Liberty. 7 December 2019. "Analysis: Turkmenistan JumFrom Regional Pariah To Regional Health Risk With Home Remedies For Animal Diseases". [https://www.rferl.org/a/qishloq-ovozi-turkmenistan-health-risk-berdymukhammedov-animal-diseases-herbal-remedies/30313192.html]. Accessed 7 December 2020.
[5] Ministry of Health and Medical Industry. Health Information Center of the Ministry of Health and Medical Industry. Special Center for Prevention of Dangerous Infectious Diseases. [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 7 December 2020.
[6] Ministry of Agriculture and Environmental Protection. [http://minagri.gov.tm]. Accessed 7 December 2020.

1.2.2b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that Turkmenistan has any laws or guidelines that safeguard the confidentiality of information generated through surveillance activities for animals. There are no relevant provisions in the 2014 Law on Legal Regulation of Internet Development and Provision of Internet Services in Turkmenistan, or in the 2014 Law on Information and its Protection [1, 2]. The Joint External Evaluation for Turkmenistan, conducted in June 2016, does not mention laws or guidelines for confidentiality of such information [3]. Websites for Turkmenistan's Ministry of Health and Medical Industry and Ministry of Agriculture and Environmental Protection also have no information on this topic [4, 5].

[1] World Health Organization (WHO). 20 December 2014. "Law on Legal Regulation of Internet Development and Provision of Internet Services in Turkmenistan (О правовом регулировании развития сети Интернет и оказания интернет-услуг в Туркменистане)". [https://www.wipo.int/edocs/lexdocs/laws/ru/tm/tm052ru.pdf]. Accessed 27 January 2021.
[2] Legislation Online. 2014. "Law on Information and its Protection [https://www.legislationline.org/download/id/8356/file/Turkmenistan_law_information_protection_2014_ru.pdf]. Accessed 27 January 2021.
[3] World Health Organization (WHO). June 2016. "Joint External Evaluation of IHR Core Capacities of Turkmenistan". [https://apps.who.int/iris/bitstream/handle/10665/255632/WHO-WHE-CPI-2017.29-eng.pdf;jsessionid=9B832A25BB05E0944628D2472E249694?sequence=1]. Accessed 7 December 2020.
[4] Ministry of Health and Medical Industry. Health Information Center of the Ministry of Health and Medical Industry. "Special Center for Prevention of Dangerous Infectious Diseases". [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 7 December 2020.
[5] Ministry of Agriculture and Environmental Protection. [http://minagri.gov.tm]. Accessed 7 December 2020.

1.2.2c

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that Turkmenistan conducts surveillance of zoonotic disease in wildlife. According to the Joint External Evaluation for Turkmenistan, conducted in June 2016, there is no functioning intersectoral unit or body tasked with regularly receiving and reviewing reports on veterinary, wildlife and human disease [1]. A 2008 World Bank reported noted there was surveillance of wild birds at that time due to concerns over avian influenza, which was overseen by the Ministry of Nature Protection and the Ministry of Agriculture. However, the report noted such efforts were underperforming due to lack of manpower and financial resources [2]. The website for Turkmenistan's Ministry of Health and the Medical Industry also reports that there is a Department of Zoology, Parasitology and Animal Care, which is part of the Special Center for Prevention of Dangerous Infectious Diseases, but there is no description of the department's responsibilities [3]. No legislation assigning the Department of Zoology, Parasitology and Animal Care its responsibilities was found on the Ministry of Health and Medical Industry website [4]. The website for Turkmenistan's Ministry of Agriculture and Environmental Protection has no information about the surveillance of zoonotic disease in wildlife [5].

[1] World Health Organization (WHO). June 2016. "Joint External Evaluation of IHR Core Capacities of Turkmenistan". [https://apps.who.int/iris/bitstream/handle/10665/255632/WHO-WHE-CPI-2017.29-eng.pdf;jsessionid=9B832A25BB05E0944628D2472E249694?sequence=1]. Accessed 7 December 2020.
[2] World Bank. 2008. "Turkmenistan Avian Influenza Control and Human Pandemic Preparedness and Response Project Environmental Assessment and Management Plan".[http://documents.worldbank.org/curated/en/204911468317052951/pdf/E18630EA0P1056620Box327358B01public1.pdf]. Accessed 7 December 2020.
[3] Ministry of Health and Medical Industry. Health Information Center of the Ministry of Health and Medical Industry. Special Center for Prevention of Dangerous Infectious Diseases. [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 7 December 2020.
[4] Ministry of Health and Medical Industry. [http://www.saglykhm.gov.tm]. Accessed 8 March 2020.
[5] Ministry of Agriculture and Environmental Protection. [http://minagri.gov.tm]. Accessed 7 December 2020.

1.2.3 International reporting of animal disease outbreaks

1.2.3a

Has the country submitted a report to OIE on the incidence of human cases of zoonotic disease for the last calendar year?
Yes = 1 , No = 0

Current Year Score: 0

2019

OIE WAHIS database

1.2.4 Animal health workforce

1.2.4a

Number of veterinarians per 100,000 people
Input number

Current Year Score: 44.63

2018

OIE WAHIS database

1.2.4b

Number of veterinary para-professionals per 100,000 people
Input number

Current Year Score: 4.83

2018

OIE WAHIS database

1.2.5 Private sector and zoonotic

1.2.5a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that Turkmenistan has mechanisms for working with the private sector in controlling or responding to zoonoses. According to the Joint External Evaluation for Turkmenistan, conducted in June 2016, there is a need for integration and involvement between the governmental and private sectors for developing the capabilities of Turkmenistan's laboratory systems [1]. Turkmenistan's government exerts strong central control over all sectors of the country's economy. Nearly all enterprises are state-owned and state-controlled. According to the JEE, it is unknown how many doctors and veterinarians work in the private sector, but it is believed to be very few [1]. The webpages for the Ministry of Health and Medical Industry and the Ministry of Agriculture and Environmental Protection have no information about private sector involvement for controlling or responding to zoonoses [2, 3].

[1] World Health Organization (WHO). June 2016. "Joint External Evaluation of IHR Core Capacities of Turkmenistan". [https://apps.who.int/iris/bitstream/handle/10665/255632/WHO-WHE-CPI-2017.29-eng.pdf;jsessionid=9B832A25BB05E0944628D2472E249694?sequence=1]. Accessed 7 December 2020.
[2] Ministry of Health and Medical Industry. Health Information Center of the Ministry of Health and Medical Industry. Special Center for Prevention of Dangerous Infectious Diseases. [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 7 December 2020.
[3] Ministry of Agriculture and Environmental Protection. [http://minagri.gov.tm]. Accessed 7 December 2020.

1.3 BIOSECURITY

1.3.1 Whole-of- government biosecurity systems

1.3.1a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that Turkmenistan has a record, updated within the past five years, of facilities in which especially dangerous pathogens and toxins are stored or processed. According to the Joint External Evaluation for Turkmenistan, conducted in June 2016, the Sanitary Code of Turkmenistan from 1995 created an Anti-Epidemic Emergency Commission that regulates the registration, storage, transfer and transportation of pathogens at all four biosafety levels, but makes no mention of inventory records [1]. The webpages of the Ministry of Health and Medical Industry, the Ministry of Defense, and the Ministry of Agriculture and Environmental Protection have no information on storage or processing of especially dangerous pathogens [2, 3, 4]. Although Turkmenistan is party to the Biological Weapons Convention, it has not submitted Confidence Building Measures (CBMs) since 2012, and access to the CBM reports that have been submitted is restricted [5]. The website of the Verification Research, Training and Information Centre has no information on record-keeping regarding especially dangerous pathogens and toxins, and where they are stored or processed, in Turkmenistan [6,

7].

[1] World Health Organization (WHO). June 2016. "Joint External Evaluation of IHR Core Capacities of Turkmenistan". [https://apps.who.int/iris/bitstream/handle/10665/255632/WHO-WHE-CPI-2017.29-eng.pdf;jsessionid=9B832A25BB05E0944628D2472E249694?sequence=1]. Accessed 7 December 2020.
[2] Ministry of Health and Medical Industry. Health Information Center of the Ministry of Health and Medical Industry. "Centralized Laboratory of Infectious Disease Center Management (Централизованная лаборатория Управления центров инфекционных болезней)".. [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 7 December 2020.
[3] Ministry of Defense. [http://milligosun.gov.tm]. Accessed 7 December 2020.
[4] Ministry of Agriculture and Environmental Protection. [http://minagri.gov.tm]. Accessed 7 December 2020.
[5] The United Nations Office at Geneva. "Available Confidence Building Measures Reports". [https://bwc-ecbm.unog.ch/state/turkmenistan]. Accessed 7 December 2020.
[6] Verification Research, Training and Information Centre. "T". [https://www.vertic.org/nuclear-and-other-radioactive-material/nuclear-security-legislation-database/t/]. Accessed 7 December 2020.
[7] Verification Research, Training and Information Centre. "T". [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/t/]. Accessed 8 March 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

No evidence was found that Turkmenistan has legislation related to biosecurity, which addresses 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. According to the Joint External Evaluation for Turkmenistan, conducted in June 2016, there is no comprehensive biosecurity legislation or associated regulations. It reports that biosecurity is uneven and does not have national reach, noting, for example, that access to facilities that house especially dangerous pathogens or toxins is determined by the senior officer of the relevant institution, rather than being governed by a national law or rule [1]. The webpages of the Ministry of Health and Medical Industry, the Ministry of Defense, and the Ministry of Agriculture and Environmental Protection do not have information about biosecurity regulations or legislation [2, 3, 4]. Although Turkmenistan is party to the Biological Weapons Convention, it has not submitted Confidence Building Measures (CBMs) since 2012, and access to the CBM reports that have been submitted is restricted [5]. The website of the Verification Research, Training and Information Centre has no further information [6, 7].

[1] World Health Organization (WHO). June 2016. "Joint External Evaluation of IHR Core Capacities of Turkmenistan". [https://apps.who.int/iris/bitstream/handle/10665/255632/WHO-WHE-CPI-2017.29-eng.pdf;jsessionid=9B832A25BB05E0944628D2472E249694?sequence=1]. Accessed 7 December 2020.
[2] Ministry of Health and Medical Industry. Health Information Center of the Ministry of Health and Medical Industry. "Centralized Laboratory of Infectious Disease Center Management (Централизованная лаборатория Управления центров инфекционных болезней)".. [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 7 December 2020.
[3] Ministry of Defense. [http://milligosun.gov.tm]. Accessed 7 December 2020.
[4] Ministry of Agriculture and Environmental Protection. [http://minagri.gov.tm]. Accessed 7 December 2020.
[5] The United Nations Office at Geneva. "Available Confidence Building Measures Reports". [https://bwc-ecbm.unog.ch/state/turkmenistan]. Accessed 7 December 2020.

[6] Verification Research, Training and Information Centre. "T". [https://www.vertic.org/nuclear-and-other-radioactive-material/nuclear-security-legislation-database/t/]. Accessed 7 December 2020.
[7] Verification Research, Training and Information Centre. "T". [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/t/]. Accessed 8 March 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

Turkmenistan does not have an established agency responsible for the enforcement of biosecurity legislation and regulations. According to the Joint External Evaluation (JEE) for Turkmenistan, conducted in June 2016, a minimal number of designated laboratories at the central level oversee the identification, storage, and monitoring of especially dangerous pathogens [1]. The JEE indicates that Turkmenistan's Center for the Prevention of Especially Dangerous Infections plays a special role in enforcing biosecurity regulations, but there is no information about this on the webpage of the Ministry of Health [2]. The websites of the Ministry of Defense and the Ministry of Agriculture and Environmental Protection have no information about an agency responsible for the enforcement of biosecurity legislation and regulations [3, 4]. Although Turkmenistan is party to the Biological Weapons Convention, it has not submitted Confidence Building Measures (CBMs) since 2012, and access to the CBM reports that it has submitted is restricted [5]. The website of the Verification Research, Training and Information Centre has no further information [6, 7].

[1] World Health Organization (WHO). June 2016. "Joint External Evaluation of IHR Core Capacities of Turkmenistan". [https://apps.who.int/iris/bitstream/handle/10665/255632/WHO-WHE-CPI-2017.29-eng.pdf;jsessionid=9B832A25BB05E0944628D2472E249694?sequence=1]. Accessed 7 December 2020.
[2] Ministry of Health and Medical Industry. Health Information Center of the Ministry of Health and Medical Industry. "Centralized Laboratory of Infectious Disease Center Management (Централизованная лаборатория Управления центров инфекционных болезней).. [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 7 December 2020.
[3] Ministry of Defense. [http://milligosun.gov.tm]. Accessed 7 December 2020.
[4] Ministry of Agriculture and Environmental Protection. [http://minagri.gov.tm]. Accessed 7 December 2020.
[5] The United Nations Office at Geneva. "Available Confidence Building Measures Reports". [https://bwc-ecbm.unog.ch/state/turkmenistan]. Accessed 7 December 2020.
[6] Verification Research, Training and Information Centre. "T". [https://www.vertic.org/nuclear-and-other-radioactive-material/nuclear-security-legislation-database/t/]. Accessed 7 December 2020.
[7] Verification Research, Training and Information Centre. "T". [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/t/]. Accessed 8 March 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 evidence of Turkmenistan having taken action to consolidate its inventories of especially dangerous pathogens and toxins into a minimum number of facilities. According to the Joint External Evaluation for Turkmenistan, conducted in June 2016, there is a minimal number of designated laboratories at the central level tasked with overseeing storage of

dangerous pathogens, but not all elements of a comprehensive biosafety and biosecurity system are in place. The JEE also mentions that in 2014, the Museum of Living Microorganisms was established at the Center for the Prevention of Especially Dangerous Infections [1]. There is little publicly available information on the Museum of Living Microorganisms outside the JEE report. The Ministry of Health and Medical Industry has no information relevant information on its website [2]. The webpages for the Ministry of Defense and the Ministry of Agriculture and Environmental Protection have no information on inventories of especially dangerous pathogens and toxins [3, 4]. Turkmenistan does not have a Ministry of Research or a national public health institute [5]. Although Turkmenistan is party to the Biological Weapons Convention, it has not submitted Confidence Building Measures (CBMs) since 2012, and access to the CBM reports it has submitted is restricted [6]. The website of the Verification Research, Training and Information Centre has no further information [7, 8].

[1] World Health Organization (WHO). June 2016. "Joint External Evaluation of IHR Core Capacities of Turkmenistan". [https://apps.who.int/iris/bitstream/handle/10665/255632/WHO-WHE-CPI-2017.29-eng.pdf;jsessionid=9B832A25BB05E0944628D2472E249694?sequence=1]. Accessed 7 December 2020.
[2] Ministry of Health and Medical Industry. Health Information Center of the Ministry of Health and Medical Industry. "Centralized Laboratory of Infectious Disease Center Management (Централизованная лаборатория Управления центров инфекционных болезней).. [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 7 December 2020.
[3] Ministry of Defence. [http://milligosun.gov.tm]. Accessed 7 December 2020.
[4] Ministry of Agriculture and Environmental Protection. [http://minagri.gov.tm]. Accessed 7 December 2020.
[5] Embassy of Turkmenistan, Republic of Turkey. Government websites of Turkmenistan. [https://turkey.tmembassy.gov.tm/en/websites]. Accessed 7 December 2020.
[6] The United Nations Office at Geneva. "Available Confidence Building Measures Reports". [https://bwc-ecbm.unog.ch/state/turkmenistan]. Accessed 7 December 2020.
[7] Verification Research, Training and Information Centre. "T". [https://www.vertic.org/nuclear-and-other-radioactive-material/nuclear-security-legislation-database/t/]. Accessed 7 December 2020.
[8] Verification Research, Training and Information Centre. "T". [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/t/]. Accessed 8 March 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 not sufficient publicly available evidence that Turkmenistan has the in-country capacity to conduct polymerase chain reaction (PCR) diagnostic testing for anthrax or Ebola. Turkmenistan has a PCR room in the Special Center for the Prevention of Dangerous Infectious Diseases, but information posted on the Ministry of Health and Medical Industry website does not mention if it can conduct diagnostic testing for anthrax or Ebola [1]. The webpage of the Centralized Laboratory of Infectious Disease Center Management, under the Ministry of Health, contains a section on the Department of of Molecular Genetics. This department lists a number of diseases for which it can conduct PCR testing, but there is no mention of Ebola or anthrax [2]. The Joint External Evaluation (JEE) for Turkmenistan, conducted in June 2016, states that Turkmenistan is proficient in classical diagnostic techniques, including PCR in selected laboratories, but has limited referral and confirmatory processes [3]. The JEE does not, however, mention whether this capacity includes anthrax or Ebola. [3] When the World Health Organization certified Turkmenistan as malaria-free in 2010, it announced that one or more laboratories of academic or research institutions in Turkmenistan would run PCR examinations, butit did not mention testing for anthrax or Ebola [4]. The webpage of Turkmenistan's Ministry of Agriculture and Environmental Protection has no information about PCR-based

diagnostic testing [5].

[1] Ministry of Health and Medical Industry. Health Information Center of the Ministry of Health and Medical Industry. "Special Center for the Prevention of Dangerous Infectious Diseases (Специальный Центр профилактики опасных инфекционных заболеваний)". [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 7 December 2020.
[2] Ministry of Health and Medical Industry. Health Information Center of the Ministry of Health and Medical Industry. "Centralized Laboratory of Infectious Disease Center Management (Централизованная лаборатория Управления центров инфекционных болезней)". [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 7 December 2020.
[3] World Health Organization (WHO). June 2016. "Joint External Evaluation of IHR Core Capacities of Turkmenistan". [https://apps.who.int/iris/bitstream/handle/10665/255632/WHO-WHE-CPI-2017.29-eng.pdf;jsessionid=9B832A25BB05E0944628D2472E249694?sequence=1]. Accessed 7 December 2020.
[4] World Health Organization (WHO). 19 October 2010. Certification of malaria elimination in Turkmenistan. [http://www.euro.who.int/__data/assets/pdf_file/0007/165616/2.pdf]. Accessed 7 December 2020.
[5] Ministry of Agriculture and Environmental Protection. [http://minagri.gov.tm]. Accessed 7 December 2020.

1.3.2 Biosecurity training and practices

1.3.2a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence that Turkmenistan has a required, standardized biosecurity training regime 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) for Turkmenistan, conducted in June 2016, all medical staff working with biological material are provided with personal protective equipment and have received training in biosafety and biosecurity issues, and workforce knowledge on biosafety and biosecurity is tested once every two years. The JEE also notes that the Center for the Prevention of Especially Dangerous Diseases twice a year conducts 45-day training courses for microbiologists and technicians working with microorganisms at biosafety levels 1 to 4 [1]. However, the JEE made a number of recommendations, among them a need for common curricula and train-the-trainers programs for both biosafety and biosecurity in all sectors, and also biosafety and biosecurity training for staff at all facilities that work with dangerous pathogens and toxins. The JEE also called on Turkmenistan to create an integrated database of biosafety and biosecurity academically certified experts [1]. No evidence that this situation has changed since the report was found on the webpages for the Ministry of Health and Medical Industry and the Ministry of Defence, which also include no information about biosecurity training [2, 3]. Although Turkmenistan is party to the Biological Weapons Convention, it has not submitted Confidence Building Measures (CBMs) since 2012, and access to the CBM reports that it has submitted is restricted [4]. No further information was found on Turkmenistan's legislation database [5]. The website of the Verification Research, Training and Information Centre has no further information [6].

[1] World Health Organization (WHO). June 2016. "Joint External Evaluation of IHR Core Capacities of Turkmenistan". [https://apps.who.int/iris/bitstream/handle/10665/255632/WHO-WHE-CPI-2017.29-eng.pdf;jsessionid=9B832A25BB05E0944628D2472E249694?sequence=1]. Accessed 7 December 2020.
[2] Ministry of Health and Medical Industry. Health Information Center of the Ministry of Health and Medical Industry. "Special Center for the Prevention of Dangerous Infectious Diseases (Специальный Центр профилактики опасных

инфекционных заболеваний)". [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 7 December 2020.
[3] Ministry of Defence. 2019. [http://milligosun.gov.tm]. Accessed 7 December 2020.
[4] The United Nations Office at Geneva. "Available Confidence Building Measures Reports". [https://bwc-ecbm.unog.ch/state/turkmenistan]. Accessed 7 December 2020.
[5] Legislation Database of Turkmenistan. [http://www.turkmenlegaldatabase.info/ru/documents.html]. Accessed 7 December 2020.
[6] Verification Research, Training and Information Centre. "T". [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/t/]. Accessed 8 March 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 information on regulations or licensing conditions in Turkmenistan 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, or psychological or mental fitness checks. According to the Joint External Evaluation (JEE) for Turkmenistan, conducted in June 2016, permits to work with infected and possibly infected materials are issued for a period of five years, but there is no mention of drug testing, background checks, and psychological or mental fitness checks or how the system of issuing permits functions [1]. The 2016 JEE says only that admission of employees to work with infected or suspect materials is made by the senior officer of the institution concerned. Article 11.1 of the Law on Licensing Certain Kinds of Activities states that, for a license to be issued, applicants must comply with "legislation of Turkmenistan, as well as environmental, sanitary-epidemiological, hygienic and fire safety standards and rules" [2]. It makes no mention of those working with dangerous pathogens, toxins, or biological materials with pandemic potential. The webpages for the Ministry of Health and Medical Industry, the Ministry of Defense, and the Ministry of Agriculture and Environmental Protection have no information on regulations or licensing conditions with respect to checks on personnel with access to dangerous pathogens, toxins, or biological materials with pandemic potential [3, 4, 5]. Information on Turkmenistan's national laboratory system does not mention testing/screening processes for personnel working with dangerous pathogens, toxins, or biological materials with pandemic potential. Although Turkmenistan is party to the Biological Weapons Convention, it has not submitted Confidence Building Measures (CBMs) since 2012, and access to the CBM reports that it has submitted is restricted. [6] No further information was found on Turkmenistan's legislation database [7]. The website of the Verification Research, Training and Information Centre has no further information [8].

[1] World Health Organization (WHO). June 2016. "Joint External Evaluation of IHR Core Capacities of Turkmenistan". [https://apps.who.int/iris/bitstream/handle/10665/255632/WHO-WHE-CPI-2017.29-eng.pdf;jsessionid=9B832A25BB05E0944628D2472E249694?sequence=1]. Accessed 9 December 2020.
[2] State Customs Service of Turkmenistan. 18 August 2015. "On Licensing Certain Kinds of Activities (О лицензировании отдельных видов деятельности)". [https://www.customs.gov.tm/ru/laws/laws/o-litsenzirovanii-otdelnykh-vidov-deyatelnosti]. Accessed 9 December 2020.
[3] Ministry of Health and Medical Industry. Health Information Center of the Ministry of Health and Medical Industry. "Special Center for the Prevention of Dangerous Infectious Diseases (Специальный Центр профилактики опасных

инфекционных заболеваний)". [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 9 December 2020.
[4] Ministry of Defence. [http://milligosun.gov.tm]. Accessed 9 December 2020.
[5] Ministry of Agriculture and Environmental Protection. [http://minagri.gov.tm]. Accessed 9 December 2020.
[6] The United Nations Office at Geneva. "Available Confidence Building Measures Reports". [https://bwc-ecbm.unog.ch/state/turkmenistan]. Accessed 9 December 2020.
[7] Legislation Database of Turkmenistan. [http://www.turkmenlegaldatabase.info/ru/documents.html]. Accessed 9 December 2020.
[8] Verification Research, Training and Information Centre. "T". [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/t/]. Accessed 8 March 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

Turkmenistan does not have publicly available information on national regulations on the safe and secure transport of infectious substances (Categories A and B). According to the Joint External Evaluation (JEE) for Turkmenistan, conducted in June 2016, traffic patterns for infectious materials are defined, and the Anti-Epidemic Emergency Commission (established as part of Turkmenistan's 1995 Sanitary Code) regulates the transfer and transport of pathogens, but the JEE provides no further details about this process [1]. Since 2008, Turkmenistan has been a party to the Cartagena Protocol on Biosafety, which aims to ensure the safe handling, transport and use of living modified organisms (LMOs) resulting from modern biotechnology [2]. The webpages of the Ministry of Health and Medical Industry, the Ministry of Defense, and the Ministry of Agriculture and Environmental Protection have no information on regulations for the safe and secure transport of infectious substances [3, 4, 5]. Although Turkmenistan is party to the Biological Weapons Convention, it has not submitted Confidence Building Measures (CBMs) since 2012, and access to the CBM reports that it has submitted is restricted [6]. No further information was found on Turkmenistan's legislation database [7]. The website of the Verification Research, Training and Information Centre has no further information [8].

[1] World Health Organization (WHO). June 2016. "Joint External Evaluation of IHR Core Capacities of Turkmenistan". [https://apps.who.int/iris/bitstream/handle/10665/255632/WHO-WHE-CPI-2017.29-eng.pdf;jsessionid=9B832A25BB05E0944628D2472E249694?sequence=1]. Accessed 9 December 2020.
[2] Convention on Biological Diversity. 11 September 2003. The Cartagena Protocol on Biosafety. [https://bch.cbd.int/protocol]. Accessed 9 December 2020.
[3] Ministry of Health and Medical Industry. Health Information Center of the Ministry of Health and Medical Industry. "Special Center for the Prevention of Dangerous Infectious Diseases (Специальный Центр профилактики опасных инфекционных заболеваний)". [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 9 December 2020.
[4] Ministry of Defence. 2019. [http://milligosun.gov.tm]. Accessed 9 December 2020.
[5] Ministry of Agriculture and Environmental Protection. 2019. [http://minagri.gov.tm]. Accessed 9 December 2020.
[6] The United Nations Office at Geneva. "Available Confidence Building Measures Reports". [https://bwc-ecbm.unog.ch/state/turkmenistan]. Accessed 9 December 2020.
[7] Legislation Database of Turkmenistan. [http://www.turkmenlegaldatabase.info/ru/documents.html]. Accessed 9 December 2020.
[8] Verification Research, Training and Information Centre. "T". [https://www.vertic.org/programmes/biological-weapons-

and-materials/bwc-legislation-database/t/]. Accessed 8 March 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 public evidence that Turkmenistan has 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. According to the Joint External Evaluation for Turkmenistan, conducted in June 2016, Turkmenistan's 1995 Sanitary Code regulates the transfer and transport of pathogens, but the JEE provides no further details about this process [1]. In August 2018, media reported that Turkmenistan's president signed a resolution on transport regulations for dangerous goods, although the report did not refer to cross-border transfer and end-user screening of especially dangerous pathogens, or the exact policies the resolution instituted [2]. The resolution could not be found on the websites of the Ministry of Health and Medical Industry, the Ministry of Agriculture, and the Ministry of Defense, which also contain no information on legislation, regulation, or other guidance in place to oversee the cross-border transfer and end-user screening of especially dangerous pathogens, toxins and pathogens with pandemic potential [3, 4, 5]. The Ministry of Industry and Communication (created 29 January 2019) does not have a website. Although Turkmenistan is party to the Biological Weapons Convention, it has not submitted Confidence Building Measures (CBMs) since 2012, and access to the CBM reports that it has submitted is restricted [7]. The website of the Verification Research, Training and Information Centre has no further information [8].

[1] World Health Organization (WHO). June 2016. "Joint External Evaluation of IHR Core Capacities of Turkmenistan". [https://apps.who.int/iris/bitstream/handle/10665/255632/WHO-WHE-CPI-2017.29-eng.pdf;jsessionid=9B832A25BB05E0944628D2472E249694?sequence=1]. Accessed 9 December 2020.
[2] ATI. 2 August 2018. "Rules for the Transportation of Dangerous Goods have been Approved in Turkmenistan (В Туркменистане утверждены правила транспортировки опасных грузов)". [https://news.ati.su/news/2018/08/02/v-turkmenistane-utverzhdeny-pravila-transportirovki-opasnyh-gruzov-144428/]. Accessed 9 December 2020.
[3] Ministry of Health and Medical Industry. Health Information Center of the Ministry of Health and Medical Industry. "Special Center for the Prevention of Dangerous Infectious Diseases (Специальный Центр профилактики опасных инфекционных заболеваний)". [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 9 December 2020.
[4] Ministry of Agriculture and Environmental Protection. [http://minagri.gov.tm]. Accessed 9 December 2020.
[5] Ministry of Defence. [http://milligosun.gov.tm]. Accessed 9 December 2020.
[6] The United Nations Office at Geneva. "Available Confidence Building Measures Reports". [https://bwc-ecbm.unog.ch/state/turkmenistan]. Accessed 9 December 2020.
[7] Legislation Database of Turkmenistan. [http://www.turkmenlegaldatabase.info/ru/documents.html]. Accessed 9 December 2020.
[8] Verification Research, Training and Information Centre. "T". [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/t/]. Accessed 8 March 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 public evidence that Turkmenistan has biosafety legislation and regulations in place. According to the Joint External Evaluation (JEE) for Turkmenistan, conducted in June 2016, an Anti-Epidemic Emergency Commission established in 1995 regulates registration, storage, transfer and transport of pathogens at all four biosafety levels, but the JEE provides no further details about this process. [1] The JEE notes that, despite the legislation in force, not all elements of a comprehensive biosafety and biosecurity system are in place, but does not go into further detail, and says a Practical Guide to Biological Safety in the Laboratory is awaiting approval. The JEE recommends Turkmenistan implement comprehensive national biosafety and biosecurity legislation. The webpages for the Ministry of Health and Medical Industry and the Ministry of Agriculture and Environmental Protection and the "Healthcare" page on the Ministry of Foreign Affairs website have no information on biosafety legislation and regulations. [2, 3, 4] Although Turkmenistan is party to the Biological Weapons Convention, it has not submitted Confidence Building Measures (CBMs) since 2012, and access to the CBM reports that have been submitted is restricted. [5] The Verification Research, Training and Information Centre's website contains no further information [6, 7]. No evidence of such legislation was found on Turkmenistan's legislative database [8].

[1] World Health Organization (WHO). June 2016. "Joint External Evaluation of IHR Core Capacities of Turkmenistan". [https://apps.who.int/iris/bitstream/handle/10665/255632/WHO-WHE-CPI-2017.29-eng.pdf;jsessionid=9B832A25BB05E0944628D2472E249694?sequence=1]. Accessed 9 December 2020.
[2] Ministry of Health and Medical Industry. Health Information Center of the Ministry of Health and Medical Industry. "Special Center for the Prevention of Dangerous Infectious Diseases (Специальный Центр профилактики опасных инфекционных заболеваний)". [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 9 December 2020.
[3] Ministry of Agriculture and Environmental Protection. 2019. [http://minagri.gov.tm]. Accessed 9 December 2020.
[4] Ministry of Foreign Affairs. "Healthcare". [https://www.mfa.gov.tm/en/articles/7]. Accessed 9 December 2020.
[5] The United Nations Office at Geneva. "Available Confidence Building Measures Reports". [https://bwc-ecbm.unog.ch/state/turkmenistan]. Accessed 9 December 2020.
[6] Verification Research, Training and Information Centre. "T". [https://www.vertic.org/nuclear-and-other-radioactive-material/nuclear-security-legislation-database/t/]. Accessed 9 December 2020.
[7] Verification Research, Training and Information Centre. "T". [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/t/]. Accessed 8 March 2021.
[8] Legislation Database of Turkmenistan. [http://www.turkmenlegaldatabase.info/ru/documents.html]. Accessed 9 December 2020.

1.4.1b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence of an established agency in Turkmenistan that is responsible for the enforcement of biosafety legislation and regulations. According to the Joint External Evaluation (JEE) for Turkmenistan, conducted in June 2016, the Anti-Epidemic Emergency Commission established in 1995 is tasked with regulating registration, storage, transfer and transport of pathogens at all biosafety levels. [1] The JEE further reports that a minimal number of designated laboratories also oversee storage, monitoring and security of dangerous pathogens, but there are no further details [1]. There is no single body or agency mentioned in the 2016 JEE as being responsible for enforcement of biosafety legislations and regulations. The webpages for the Ministry of Health and Medical Industry and the Ministry of Agriculture and Environmental Protection have no information about such an agency [2, 3]. Turkmenistan does not have a research ministry or national public health institute [4]. Although Turkmenistan is party to the Biological Weapons Convention, it has not submitted Confidence Building Measures (CBMs) since 2012, and access to the CBM reports that have been submitted is restricted [5]. The Verification Research, Training and Information Centre's website contains no further information [6, 7]. No evidence of such legislation was found on Turkmenistan's legislative database [8].

[1] World Health Organization (WHO). June 2016. "Joint External Evaluation of IHR Core Capacities of Turkmenistan". [https://apps.who.int/iris/bitstream/handle/10665/255632/WHO-WHE-CPI-2017.29-eng.pdf;jsessionid=9B832A25BB05E0944628D2472E249694?sequence=1]. Accessed 9 December 2020.
[2] Ministry of Health and Medical Industry. Health Information Center of the Ministry of Health and Medical Industry. "Special Center for the Prevention of Dangerous Infectious Diseases (Специальный Центр профилактики опасных инфекционных заболеваний)". [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 9 December 2020.
[3] Ministry of Agriculture and Environmental Protection. [http://minagri.gov.tm]. Accessed 9 December 2020.
[4] Embassy of Turkmenistan, Turkey. "Government websites of Turkmenistan". [https://turkey.tmembassy.gov.tm/en/websites]. Accessed 9 December 2020.
[5] The United Nations Office at Geneva. "Available Confidence Building Measures Reports". [https://bwc-ecbm.unog.ch/state/turkmenistan]. Accessed 9 December 2020.
[6] Verification Research, Training and Information Centre. "T". [https://www.vertic.org/nuclear-and-other-radioactive-material/nuclear-security-legislation-database/t/]. Accessed 9 December 2020.
[7] Verification Research, Training and Information Centre. "T". [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/t/]. Accessed 8 March 2021.
[8] Legislation Database of Turkmenistan. [http://www.turkmenlegaldatabase.info/ru/documents.html]. Accessed 9 December 2020.

1.4.2 Biosafety training and practices

1.4.2a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that Turkmenistan requires biosafety training that uses a standardized approach. According to the Joint External Evaluation (JEE) for Turkmenistan, conducted in June 2016, all medical staff working with biological material have received training in biosafety and biosecurity issues [1]. The JEE further reports that undergraduate and postgraduate students who study subjects like medicine and biology also receive training in biosafety, and two- and three-year training certifications are required to work with microorganisms at biosafety levels 1 and 2, or in virology laboratories. The Center for the Prevention of Especially Dangerous Diseases conducts 45-day training courses twice a year

for microbiologists and technicians who work with microorganisms at biosafety levels 1-4. However, the JEE states that not all elements of comprehensive biosafety are in place and recommends Turkmenistan adopt comprehensive national biosafety legislation and also implement a clear framework for agencies in the medical, veterinary and agricultural sectors to follow. The 2016 JEE also recommended Turkmenistan strengthen train-the-trainers programs for biosafety in all sectors [1]. No evidence that the situation has changed since the 2016 JEE was found on the websites of the Ministry of Health and Medical Industry and the Ministry of Agriculture and Environmental Protection, which also contain no information about biosafety training [2, 3]. Turkmenistan does not have a research ministry or national public health institute [4]. The Verification Research, Training and Information Centre's website contains no further information [5, 6]. No evidence of such legislation was found on Turkmenistan's legislative database [6].

[1] World Health Organization (WHO). June 2016. "Joint External Evaluation of IHR Core Capacities of Turkmenistan". [https://apps.who.int/iris/bitstream/handle/10665/255632/WHO-WHE-CPI-2017.29-eng.pdf;jsessionid=9B832A25BB05E0944628D2472E249694?sequence=1]. Accessed 9 December 2020.
[2] Ministry of Health and Medical Industry. Health Information Center of the Ministry of Health and Medical Industry. "Special Center for the Prevention of Dangerous Infectious Diseases (Специальный Центр профилактики опасных инфекционных заболеваний)". [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 9 December 2020.
[3] Ministry of Agriculture and Environmental Protection. [http://minagri.gov.tm]. Accessed 9 December 2020.
[4] Embassy of Turkmenistan, Turkey. "Government websites of Turkmenistan". [https://turkey.tmembassy.gov.tm/en/websites]. Accessed 9 December 2020.
[5] Verification Research, Training and Information Centre. "T". [https://www.vertic.org/nuclear-and-other-radioactive-material/nuclear-security-legislation-database/t/]. Accessed 9 December 2020.
[6] Verification Research, Training and Information Centre. "T". [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/t/]. Accessed 8 March 2021.
[7] Legislation Database of Turkmenistan. [http://www.turkmenlegaldatabase.info/ru/documents.html]. Accessed 9 December 2020.

1.5 DUAL-USE RESEARCH AND CULTURE OF RESPONSIBLE SCIENCE

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

1.5.1a

Is there publicly available evidence that the country has conducted an assessment to determine whether ongoing research is occurring on especially dangerous pathogens, toxins, pathogens with pandemic potential and/or other dual-use research?
Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that Turkmenistan 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. According to the Joint External Evaluation for Turkmenistan, conducted in June 2016, mechanisms for biosecurity oversight of dual use research exist, but the report does not detail these mechanisms or what sort of dual use research might be involved [1]. The webpages for the Ministry of Health and Medical Industry, the Ministry of Defense, and the Ministry of Agriculture and Environmental Protection have no information on about whether ongoing research is occurring on especially dangerous pathogens, toxins, pathogens with pandemic potential, and/or other dual use research [2, 3, 4]. There is no ministry of research or national public health institute, and there appears to be no reference to dual use research in reports about Turkmenistan's laboratory system [5]. Although Turkmenistan is party to the Biological Weapons Convention, it has not

submitted Confidence Building Measures (CBMs) since 2012, and access to the CBM reports it has submitted is restricted [6]. The Verification Research, Training and Information Centre's website contains no further information [7, 8]. No evidence of relevant legislation was found on Turkmenistan's legislative database [8].

[1] World Health Organization (WHO). June 2016. "Joint External Evaluation of IHR Core Capacities of Turkmenistan". [https://apps.who.int/iris/bitstream/handle/10665/255632/WHO-WHE-CPI-2017.29-eng.pdf;jsessionid=9B832A25BB05E0944628D2472E249694?sequence=1]. Accessed 9 December 2020.
[2] Ministry of Health and Medical Industry. Health Information Center of the Ministry of Health and Medical Industry. "Special Center for the Prevention of Dangerous Infectious Diseases (Специальный Центр профилактики опасных инфекционных заболеваний)". [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 9 December 2020.
[3] Ministry of Defence. [http://milligosun.gov.tm]. Accessed 9 December 2020.
[4] Ministry of Agriculture and Environmental Protection. [http://minagri.gov.tm]. Accessed 9 December 2020.
[5] Embassy of Turkmenistan, Turkey. "Government websites of Turkmenistan". [https://turkey.tmembassy.gov.tm/en/websites]. Accessed 9 December 2020.
[6] The United Nations Office at Geneva. "Available Confidence Building Measures Reports". [https://bwc-ecbm.unog.ch/state/turkmenistan]. Accessed 9 December 2020.
[7] Verification Research, Training and Information Centre. "T". [https://www.vertic.org/nuclear-and-other-radioactive-material/nuclear-security-legislation-database/t/]. Accessed 9 December 2020.
[8] Verification Research, Training and Information Centre. "T". [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/t/]. Accessed 8 March 2021.
[9] Legislation Database of Turkmenistan. [http://www.turkmenlegaldatabase.info/ru/documents.html]. Accessed 9 December 2020.

1.5.1b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that Turkmenistan has a national policy requiring oversight of dual use research, such as research with especially dangerous pathogens, toxins, and/or pathogens with pandemic potential. The 2016 JEE assessment mentions that mechanisms for biosecurity oversight of dual use research exist, but the report has no information on a national policy [1]. The webpages for the Ministry of Health and Medical Industry, the Ministry of Defense, and the Ministry of Agriculture and Environmental Protection have no information about a national policy on oversight of dual use research [2, 3, 4]. There is no ministry of research [5]. Although Turkmenistan is party to the Biological Weapons Convention, it has not submitted Confidence Building Measures (CBMs) since 2012, and access to the CBM reports that have been submitted is restricted [6]. The Verification Research, Training and Information Centre's website contains no further information [7, 8]. No evidence of relevant legislation was found on Turkmenistan's legislative database [9].

[1] World Health Organization (WHO). June 2016. "Joint External Evaluation of IHR Core Capacities of Turkmenistan". [https://apps.who.int/iris/bitstream/handle/10665/255632/WHO-WHE-CPI-2017.29-eng.pdf;jsessionid=9B832A25BB05E0944628D2472E249694?sequence=1]. Accessed 9 December 2020.
[2] Ministry of Health and Medical Industry. Health Information Center of the Ministry of Health and Medical Industry. "Special Center for the Prevention of Dangerous Infectious Diseases (Специальный Центр профилактики опасных инфекционных заболеваний)". [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 9 December 2020.
[3] Ministry of Defence. [http://milligosun.gov.tm]. Accessed 9 December 2020.

[4] Ministry of Agriculture and Environmental Protection. [http://minagri.gov.tm]. Accessed 9 December 2020.
[5] Embassy of Turkmenistan, Turkey. "Government websites of Turkmenistan". [https://turkey.tmembassy.gov.tm/en/websites]. Accessed 9 December 2020.
[6] The United Nations Office at Geneva. "Available Confidence Building Measures Reports". [https://bwc-ecbm.unog.ch/state/turkmenistan]. Accessed 9 December 2020.
[7] Verification Research, Training and Information Centre. "T". [https://www.vertic.org/nuclear-and-other-radioactive-material/nuclear-security-legislation-database/t/]. Accessed 9 December 2020.
[8] Verification Research, Training and Information Centre. "T". [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/t/]. Accessed 8 March 2021.
[9] Legislation Database of Turkmenistan. [http://www.turkmenlegaldatabase.info/ru/documents.html]. Accessed 9 December 2020.

1.5.1c

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available information about an agency in Turkmenistan tasked with overseeing research with especially dangerous pathogens, pathogens with pandemic potential, and/or other dual use research. According to the Joint External Evaluation (JEE) for Turkmenistan, conducted in June 2016, the Anti-Epidemic Emergency Commission established in 1995 regulates the registration, storage, transfer and transport of pathogens [1]. The JEE further states that mechanisms for biosecurity oversight of dual use research exist, but does not name a specific agency charged with this oversight. The webpages for the Ministry of Health and Medical Industry, the Defense Ministry, and the Ministry of Agriculture and Environmental Protection have no information about a national policy on oversight of dual use research [2, 3, 4]. There is no ministry of research [5]. Although Turkmenistan is party to the Biological Weapons Convention, it has not submitted Confidence Building Measures (CBMs) since 2012, and access to the CBM reports that have been submitted is restricted [6]. The Verification Research, Training and Information Centre's website contains no further information [7, 8]. No evidence of relevant legislation was found on Turkmenistan's legislative database [9].

[1] World Health Organization (WHO). June 2016. "Joint External Evaluation of IHR Core Capacities of Turkmenistan". [https://apps.who.int/iris/bitstream/handle/10665/255632/WHO-WHE-CPI-2017.29-eng.pdf;jsessionid=9B832A25BB05E0944628D2472E249694?sequence=1]. Accessed 9 December 2020.
[2] Ministry of Health and Medical Industry. Health Information Center of the Ministry of Health and Medical Industry. "Special Center for the Prevention of Dangerous Infectious Diseases (Специальный Центр профилактики опасных инфекционных заболеваний)". [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 9 December 2020.
[3] Ministry of Defence. [http://milligosun.gov.tm]. Accessed 9 December 2020.
[4] Ministry of Agriculture and Environmental Protection. [http://minagri.gov.tm]. Accessed 9 December 2020.
[5] Embassy of Turkmenistan, Turkey. "Government websites of Turkmenistan". [https://turkey.tmembassy.gov.tm/en/websites]. Accessed 9 December 2020.
[6] The United Nations Office at Geneva. "Available Confidence Building Measures Reports". [https://bwc-ecbm.unog.ch/state/turkmenistan]. Accessed 9 December 2020.
[7] Verification Research, Training and Information Centre. "T". [https://www.vertic.org/nuclear-and-other-radioactive-material/nuclear-security-legislation-database/t/]. Accessed 9 December 2020.
[8] Verification Research, Training and Information Centre. "T". [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/t/]. Accessed 8 March 2021.

[9] Legislation Database of Turkmenistan. [http://www.turkmenlegaldatabase.info/ru/documents.html]. Accessed 9 December 2020.

1.5.2 Screening guidance for providers of genetic material

1.5.2a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence of Turkmenistan having national legislation, regulation, policy, or other guidance requiring the screening of synthesized DNA before it is sold. The Joint External Evaluation for Turkmenistan, conducted in June 2016, does not mentioned synthesized DNA [1]. The webpages of the Ministry of Health and Medical Industry, the Ministry of Agriculture and Environmental Protection, and the Ministry of Defence have no information about a national legislation, regulation, policy, or other guidance requiring the screening of synthesized DNA before it is sold [2, 3, 4]. There is no national public health institute [5]. Although Turkmenistan is party to the Biological Weapons Convention, it has not submitted Confidence Building Measures (CBMs) since 2012, and access to the CBM reports is restricted [6]. Since 2008, Turkmenistan has been a party to the Cartagena Protocol on Biosafety, which aims to ensure the safe handling, transport and use of living modified organisms (LMOs) resulting from modern biotechnology [7]. However, no evidence that the Cartagena Protocol has been implemented in Turkmenistan law was found on the webpages of the Ministry of Health and Medical Industry, the Ministry of Agriculture and Environmental Protection, and the Ministry of Defence [2, 3, 4]. The Verification Research, Training and Information Centre's website contains no further information [8, 9]. No evidence of relevant legislation, for example governing the sale of genetically modified organisms (GMOs), was found on Turkmenistan's legislative database [10]. Under article 27 of the Law on Ensuring Safety and Quality of Food Products (adopted 2014), it is illegal to import any food products containing or derived from genetically modified organisms. [11]

[1] World Health Organization (WHO). June 2016. "Joint External Evaluation of IHR Core Capacities of Turkmenistan". [https://apps.who.int/iris/bitstream/handle/10665/255632/WHO-WHE-CPI-2017.29-eng.pdf;jsessionid=9B832A25BB05E0944628D2472E249694?sequence=1]. Accessed 9 December 2020.
[2] Ministry of Health and Medical Industry. Health Information Center of the Ministry of Health and Medical Industry. "Special Center for the Prevention of Dangerous Infectious Diseases (Специальный Центр профилактики опасных инфекционных заболеваний)". [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 9 December 2020.
[3] Ministry of Defence. [http://milligosun.gov.tm]. Accessed 9 December 2020.
[4] Ministry of Agriculture and Environmental Protection. [http://minagri.gov.tm]. Accessed 9 December 2020.
[5] Embassy of Turkmenistan, Turkey. "Government websites of Turkmenistan". [https://turkey.tmembassy.gov.tm/en/websites]. Accessed 9 December 2020.
[6] The United Nations Office at Geneva. "Available Confidence Building Measures Reports". [https://bwc-ecbm.unog.ch/state/turkmenistan]. Accessed 9 December 2020.
[7] Convention on Biological Diversity. 11 September 2003. The Cartagena Protocol on Biosafety. [https://bch.cbd.int/protocol]. Accessed 8 March 2020.
[8] Verification Research, Training and Information Centre. "T". [https://www.vertic.org/nuclear-and-other-radioactive-material/nuclear-security-legislation-database/t/]. Accessed 9 December 2020.
[9] Verification Research, Training and Information Centre. "T". [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/t/]. Accessed 8 March 2021.
[10] Legislation Database of Turkmenistan. [http://www.turkmenlegaldatabase.info/ru/documents.html]. Accessed 9

December 2020.
[11] Government of Turkmenistan. 16 August 2014. "Law on Ensuring Safety and Quality of Food Products." ("Закон об обеспечении безопасности и качества пищевых продуктов.") [https://www.parahat.info/law/2014-08-26-zakon-turkmenistana-ob-obespechenii-bezopasnosti-i-kachestva-pischevyh-produktov]. Accessed 23 December 2020.

1.6 IMMUNIZATION

1.6.1 Vaccination rates

1.6.1a

Immunization rate (measles/MCV2)

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

Current Year Score: 2

2019

World Health Organization

1.6.1b

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

Yes = 1 , No = 0

Current Year Score: 1

2020

OIE WAHIS database

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

2.1 LABORATORY SYSTEMS STRENGTH AND QUALITY

2.1.1 Laboratory testing for detection of priority diseases

2.1.1a

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

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

Current Year Score: 1

Turkmenistan has a national laboratory system capable of conducting diagnostic tests for at least 5 of the 10 WHO-defined core tests, but the tests are not named. According to the Joint External Evaluation (JEE) for Turkmenistan, conducted in June 2016, Turkmenistan's national laboratory system has the capability to conduct five or more of the ten core tests, but it does not list which tests these are [1]. The JEE recommended improving capacity at designated provincial laboratories so they can perform all 10 core tests. [1] The webpage for the Ministry of Health and Medical Industry reports the Preventative Centre for Especially Dangerous Infections has a polymerase chain reaction and a virology department that can conduct rapid diagnostic testing, but has no information about WHO-defined core tests. [2]. The Centralized Management Laboratory of Infectious Diseases, contained within the Ministry of Health, also conducts diagnostic testing, but of the WHO-defined core tests, it only mentions tuberculosis and salmonella [3]. There is a WHO report from December 2016 about training courses for virologists in Turkmenistan with the main goal of enhancing capabilities of staff at the National Influenza Laboratory [4]. A 2012 WHO-sponsored study on eliminating malaria in Turkmenistan reported rapid diagnostic tests have never been used because of the relatively low number of malaria cases and the existence of reliable microscopic diagnosis [5].

[1] World Health Organization (WHO). June 2016. “Joint External Evaluation of IHR Core Capacities of Turkmenistan”. [https://apps.who.int/iris/bitstream/handle/10665/255632/WHO-WHE-CPI-2017.29-eng.pdf;jsessionid=9B832A25BB05E0944628D2472E249694?sequence=1]. Accessed 11 December 2020.
[2] Ministry of Health and Medical Industry. Health Information Center of the Ministry of Health and Medical Industry. “Special Center for the Prevention of Dangerous Infectious Diseases (Специальный Центр профилактики опасных инфекционных заболеваний)". [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 11 December 2020.
[3] Ministry of Health and Medical Industry. Health Information Center of the Ministry of Health and Medical Industry. “Centralized Management Laboratory of Infectious Diseases”. [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 11 December 2020.
[4] World Health Organization (WHO). December 2016. On-site practical laboratory training in influenza virology in Turkmenistan..[http://www.euro.who.int/en/media-centre/events/events/2016/12/on-site-practical-laboratory-training-in-influenza-virology-in-turkmenistan]. Accessed 11 December 2020.
[5] World Health Organization (WHO). 2012. Eliminating Malaria Case-study 1: Achieving elimination in Turkmenistan. [https://apps.who.int/iris/bitstream/handle/10665/75848/9789241504300_eng.pdf?sequence=1]. Accessed 11 December 2020.

2.1.1b

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

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

Current Year Score: 0

There is no publicly available evidence that Turkmenistan has a plan to conduct testing during a public health emergency, which includes considerations for testing for novel pathogens, scaling capacity, and defining goals for testing.

The 2016 Joint External Evaluation report notes that Turkmenistan needs to improve its capacity to deal with emerging and novel threats, and makes no mention of any plan for them [1]. The Organization for Economic Cooperation and Development (OECD) notes that Turkmenistan has had an extremely limited policy response to the COVID-19 crisis [2]. The websites of the Ministry of Health and Medical Industry and the Ministry of Agriculture and Environmental Protection contain no evidence of

any plans to conduct testing during a public health emergency [3, 4].

[1] World Health Organization (WHO). June 2016. "Joint External Evaluation of IHR Core Capacities of Turkmenistan". [https://apps.who.int/iris/bitstream/handle/10665/255632/WHO-WHE-CPI-2017.29-eng.pdf;jsessionid=9B832A25BB05E0944628D2472E249694?sequence=1]. Accessed 11 December 2020.
[2] Organisation for Economic Cooperation and Development. 2020. "COVID-19 Crisis Response in Central Asia". [https://www.oecd.org/coronavirus/policy-responses/covid-19-crisis-response-in-central-asia-5305f172/#section-d1e1524]. Accessed 11 December 2020.
[3] Ministry of Health and Medical Industry. Health Information Center of the Ministry of Health and Medical Industry. "Special Center for the Prevention of Dangerous Infectious Diseases (Специальный Центр профилактики опасных инфекционных заболеваний)". [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 11 December 2020.
[4] Ministry of Agriculture and Environmental Protection. [http://minagri.gov.tm]. Accessed 9 December 2020.

2.1.2 Laboratory quality systems

2.1.2a

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

Yes = 1 , No = 0

Current Year Score: 0

Turkmenistan does not have an accredited National Reference Laboratory (NRL). A press release from the Embassy of Turkmenistan in Tokyo confirms that the Center of Public Health and Nutrition of the State Sanitary and Epidemiological Service has received International Standards Organization accreditation, according to "international standards on General Requirements for the Competence of Testing and Calibration Laboratories" [1]. However, there is insufficient evidence that this laboratory serves as the national reference laboratory for infectious disease tests; the press release states that the Center of Public Health and Nutrition includes a "virology department with reference laboratory", without giving any further details on the laboratory [1]. No further information on the Center of Public Health and Nutrition, the reference laboratory or any other laboratories is available on the websites of the Ministry of Health and Medical Industry. Health Information Center of the Ministry of Health and Medical Industry and Ministry of Agriculture and Environmental Protection [2, 3].

[1] Embassy of Turkmenistan, Japan. 29 January 2020. "Laboratory for study of food products of the Centre of Public Health and Nutrition receive international accreditation". [https://japan.tmembassy.gov.tm/en/news/50566]. Accessed 11 December 2020.
[2] Ministry of Health and Medical Industry. Health Information Center of the Ministry of Health and Medical Industry. "Special Center for the Prevention of Dangerous Infectious Diseases (Специальный Центр профилактики опасных инфекционных заболеваний)". [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 11 December 2020.
[3] Ministry of Agriculture and Environmental Protection. [http://minagri.gov.tm]. Accessed 11 December 2020.

2.1.2b

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

Yes = 1 , No = 0

Current Year Score: 1

There is evidence that several reference facilities have undergone external quality assurance review. According to the Joint External Evaluation for Turkmenistan, conducted in June 2016, the Bacteriological Laboratory Development and Production Center, the Sanitary and Epidemiological Station of Ashgabat and the Prevention Center of Especially Dangerous Infections participated in an International External Quality Assessment and received certificates [1]. A 2016 report from the United Nations office in Turkmenistan states that Turkmenistan's Centralized Laboratory for Infectious Diseases passed quality certification for external quality assessment by the Supra-national Reference Laboratory in Germany under a United Nations Development Program (UNDP) tuberculosis project financed by the Global Fund to Fight AIDS, Tuberculosis and Malaria [2]. A March 2019 article from the UNDP confirms that Turkmenistan's National Reference Laboratory for tuberculosis is subject to external quality assessment [3]. There is evidence that a further reference laboratory is in place, contained in a press release from the Embassy of Turkmenistan in Tokyo announcing that the Center of Public Health and Nutrition of the State Sanitary and Epidemiological Service had received International Standards Organization accreditation [4]. However, the press release does not refer to external quality assessment for the Center of Public Health and Nutrition [4]. The webpages for the Ministry of Health and Medical Industry and the Ministry of Agriculture and Environmental Protection include no further information on the final laboratory referred to above, or on any other national laboratory that serves as a reference facility subject to external quality assurance review [5, 6].

[1] World Health Organization (WHO). June 2016. “Joint External Evaluation of IHR Core Capacities of Turkmenistan”. [https://apps.who.int/iris/bitstream/handle/10665/255632/WHO-WHE-CPI-2017.29-eng.pdf;jsessionid=9B832A25BB05E0944628D2472E249694?sequence=1]. Accessed 11 December 2020.
[2] United Nations in Turkmenistan. 19 December 2016. “Turkmenistans Central TB Lab Scores Excellent in Quality Assessment”. [http://tm.one.un.org/content/unct/turkmenistan/en/home/presscenter/TB-Lab-success.html] Accessed 11 December 2020.
[3] United Nations Development Programme. 21 March 2019. "UNDP and national partners build cooperation in infectious materials transportation to improve performance of TB laboratories”. [https://www.tm.undp.org/content/turkmenistan/en/home/ourwork/governance-economic-diversification-and-inclusive-growth/successstories/infectious-materials-transportation.html]. Accessed 11 December 2020.
[4] Embassy of Turkmenistan, Japan. 29 January 2020. “Laboratory for study of food products of the Centre of Public Health and Nutrition receive international accreditation”. [https://japan.tmembassy.gov.tm/en/news/50566]. Accessed 8 March 2020.
[5] Ministry of Health and Medical Industry. [http://www.saglykhm.gov.tm/]. Accessed 11 December 2020.
[6] Ministry of Agriculture and Environmental Protection. [http://minagri.gov.tm]. Accessed 11 December 2020.

2.2 LABORATORY SUPPLY CHAINS

2.2.1 Specimen referral and transport system

2.2.1a

Is there a nationwide specimen transport system?

Yes = 1 , No = 0

Current Year Score: 1

Turkmenistan has a nationwide specimen transport system. According to the Joint External Evaluation (JEE) for Turkmenistan, conducted in June 2016, Turkmenistan has a system in place to transport specimens to national laboratories from at least 80% of intermediate levels or districts within the country for advanced diagnostics. [1] The JEE elaborates that a courier system exists for specimen transport from intermediate and district levels to reference laboratories and national laboratories. The webpages of the Ministry of Health and Medical Industry and the Ministry of Agriculture and Environmental

Protection do not have information about a specimen transport system. [2, 3] The World Health Organization's Central Asian and European Surveillance of Antimicrobial Resistance Annual report 2019 notes that Turkmenistan has simplified its procedures for transporting specimens to labs to improve its testing capacities. [4]

[1] World Health Organization (WHO). June 2016. "Joint External Evaluation of IHR Core Capacities of Turkmenistan". [https://apps.who.int/iris/bitstream/handle/10665/255632/WHO-WHE-CPI-2017.29-eng.pdf;jsessionid=9B832A25BB05E0944628D2472E249694?sequence=1]. Accessed 11 December 2020.
[2] Ministry of Health and Medical Industry. Health Information Center of the Ministry of Health and Medical Industry. "Special Center for the Prevention of Dangerous Infectious Diseases (Специальный Центр профилактики опасных инфекционных заболеваний)". [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 11 December 2020.
[3] Ministry of Agriculture and Environmental Protection. [http://minagri.gov.tm]. Accessed 11 December 2020.
[4] World Health Organization (WHO). 2019. "Central Asian and European Surveillance of Antimicrobial Resistance Annual report 2019". [https://www.euro.who.int/__data/assets/pdf_file/0003/418863/53373-WHO-CAESAR-annual-report-2019.pdf]. Accessed 22 December 2020.

2.2.2 Laboratory cooperation and coordination

2.2.2a

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

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

Current Year Score: 0

There is no publicly available evidence that Turkmenistan 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 Emergency Anti-Epidemic Commission was created in 1996 to combat epidemics. The Regulation of the Emergency Anti-Epidemic Commission of Turkmenistan lays out the responsibilities and rights of the commission, but makes no mention of any plans for the scaling of testing [1]. The commission was activated in 2020 to combat the COVID-19 crisis, and test kits were purchased from Germany, Russia, and Turkey, but news articles on the topic make no mention of specific plans or guiding documents [2, 3]. According to the Joint External Evaluation for Turkmenistan, conducted in June 2016, Turkmenistan has plans in place to scale up the distribution of resources in emergency situations, but the report does not mention if testing is part of any of the plans [4]. No further information was found on the websites of the Ministry of Health and Medical Industry, Ministry of Agriculture and Environmental Protection, or the Ministry of Defense [5, 6, 7].

[1] Document Database of the Commonwealth of Independent States. 27 February 1998. "On Approval of the Regulation of the Emergency Anti-Epidemic Commission of Turkmenistan (Об утверждении Положения о Чрезвычайной противоэпидемической комиссии Туркменистана)". [http://base.spinform.ru/show_doc.fwx?rgn=21764]. Accessed 11 December 2020.
[2] Turkmenportal. 2020. "Turkmenistan's epidemiological situation vis-à-vis the COVID 19 coronavirus remains under control." ("Эпидемиологическая ситуация в Туркменистане по коронавирусу COVID 19 остаётся под контролем.") [https://turkmenportal.com/blog/26422/epidemiologicheskaya-situaciya-v-turkmenistane-po-koronavirusu-covid-19-ostaetsya-pod-kontrolem]. Accessed 11 December 2020.
[3] Radio Free Europe/Radio Liberty. 2020. "Turkmenistan's government ignored social distancing, but the president takes steps to protect himself and his loved ones." (Правительство Туркменистана игнорирует социальное дистанцирование, но президент предпринимает меры, чтобы оградить себя и близких)". [https://rus.azathabar.com/a/30609470.html]. Accessed 11 December 2020.

[4] World Health Organization (WHO). June 2016. “Joint External Evaluation of IHR Core Capacities of Turkmenistan”. [https://apps.who.int/iris/bitstream/handle/10665/255632/WHO-WHE-CPI-2017.29-eng.pdf;jsessionid=9B832A25BB05E0944628D2472E249694?sequence=1]. Accessed 11 December 2020.
[5] Ministry of Health and Medical Industry. Health Information Center of the Ministry of Health and Medical Industry. “Special Center for the Prevention of Dangerous Infectious Diseases (Специальный Центр профилактики опасных инфекционных заболеваний)". [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 11 December 2020.
[6] Ministry of Agriculture and Environmental Protection. [http://minagri.gov.tm]. Accessed 11 December 2020.
[7] Ministry of Defence. [http://milligosun.gov.tm]. Accessed 11 December 2020.

2.3 REAL-TIME SURVEILLANCE AND REPORTING

2.3.1 Indicator and event-based surveillance and reporting systems

2.3.1a

Is there evidence that the country is conducting ongoing event-based surveillance and analysis for infectious disease?
Yes, there is evidence of ongoing event-based surveillance and evidence that the data is being analyzed on a daily basis = 2, Yes, there is evidence of ongoing event-based surveillance, but no evidence that the data are being analyzed on a daily basis = 1, No = 0

Current Year Score: 0

There is insufficient publicly-available evidence that Turkmenistan is conducting ongoing event-based surveillance (EBS) and analysis for infectious disease. According to the Joint External Evaluation for Turkmenistan, conducted in June 2016, there is no EBS system in place or under development. The report later notes that Turkmenistan's ability to rapidly recognize aberrations in the incidence of known pathogens or the emergence of relatively rare or previously undescribed pathogens would be significantly improved if the country developed an interoperable and interconnected multisectoral electronic surveillance system with both indicator-based (including syndromic) and event-based surveillance functionalities [1]. The report recommends developing an EBS system that allows the organized collection, monitoring, assessment and interpretation of mainly unstructured ad hoc information regarding health events. In April 2019, the United States Embassy announced that it had donated $920,000 in health assistance, partially to kickstart event-based surveillance in Turkmenistan [2]. However, the webpages for the Ministry of Health and Medical Industry and the Ministry of Agriculture and Environmental Protection have no information on event-based surveillance [3, 4]. There is no national public health institute [5].

[1] World Health Organization (WHO). June 2016. “Joint External Evaluation of IHR Core Capacities of Turkmenistan”. [https://apps.who.int/iris/bitstream/handle/10665/255632/WHO-WHE-CPI-2017.29-eng.pdf;jsessionid=9B832A25BB05E0944628D2472E249694?sequence=1]. Accessed 11 December 2020.
[2] United States Embassy in Turkmenistan. 2020. "U.S. Embassy Partners with the Government of Turkmenistan in Response to COVID-19 Pandemic." [https://tm.usembassy.gov/u-s-embassy-partners-with-the-government-of-turkmenistan-in-response-to-covid-19-pandemic/]. Accessed 11 December 2020.
[3] Ministry of Health and Medical Industry. Health Information Center of the Ministry of Health and Medical Industry. “Special Center for the Prevention of Dangerous Infectious Diseases (Специальный Центр профилактики опасных инфекционных заболеваний)". [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 11 December 2020.
[4] Ministry of Agriculture and Environmental Protection. [http://minagri.gov.tm]. Accessed 11 December 2020.
[5] Embassy of Turkmenistan, Turkey. “Government websites of Turkmenistan”. [https://turkey.tmembassy.gov.tm/en/websites]. Accessed 11 December 2020.

2.3.1b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that Turkmenistan has reported a potential public health emergency of international concern (PHEIC) to the World Health Organization (WHO) within the last two years.

The WHO website for disease outbreak news does not list Turkmenistan as having reported a potential PHEIC during the last two years, including in relation to COVID-19 [1]. No other WHO documents have information about Turkmenistan reporting a potential PHEIC within the last year. There are no reports in state or foreign media about Turkmenistan making such a notification to the WHO within the last year. The webpage for Turkmenistan's Ministry of Health and Medical Industry and the healthcare page of the Foreign Ministry's website has no information about any notifications of infectious diseases on the territory of Turkmenistan within the last two years [2, 3]. No other state body has released any information about Turkmenistan notifying the WHO or any other organization about the outbreak of a potential PHEIC inside Turkmenistan within the last two years.

[1] World Health Organization (WHO). 2020. “Emergency preparedness, responses”. [https://www.who.int/csr/don/archive/year/2020/en/]. Accessed 11 December 2020.
[2] Ministry of Health and Medical Industry. Health Information Center of the Ministry of Health and Medical Industry. “Special Center for the Prevention of Dangerous Infectious Diseases (Специальный Центр профилактики опасных инфекционных заболеваний)". [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 11 December 2020.
[3] Ministry of Foreign Affairs. “Healthcare”. [https://www.mfa.gov.tm/en/articles/7]. Accessed 11 December 2020.

2.3.2 Interoperable, interconnected, electronic real-time reporting systems

2.3.2a

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

Yes = 1 , No = 0

Current Year Score: 0

There is not sufficient publicly available evidence that Turkmenistan can collect ongoing/real time laboratory data at both the national and sub-national levels. According to the Joint External Evaluation (JEE) for Turkmenistan, conducted in June 2016, Turkmenistan's reporting surveillance system for humans and animals used by the Ministry of Health and Medical Industry and the Ministry of Agriculture and Environmental Protection is still paper-based, although the JEE calls the system robust and adds that Turkmenistan has recently been moving to electronic health records [1]. The 2016 JEE says that there is regular reporting of infectious diseases to the State Sanitary Epidemiological Service (SSES). The JEE also says that certain infectious diseases require fast track reporting: immediately by telephone to the SSES, or within 12 hours from the moment of detection in the city, or within 24 hours in rural areas. The JEE notes there is a system to submit preliminary unconfirmed case paper-based reports from primary care and other medical facilities to the SSES while laboratory or other confirmations are pending. The webpage of the Ministry of Health and Medical Industry says only that specialists at the Special Center for the Prevention of Dangerous Infectious Diseases, where the country's main laboratory is located, collect information and carry out activities with branches in the provinces to prevent the spread of dangerous infections. The page does not explain the means of communication between the Center and the provinces [2]. Turkmenistan does not have a national public health

institute [3].

[1] World Health Organization (WHO). June 2016. “Joint External Evaluation of IHR Core Capacities of Turkmenistan”. [https://apps.who.int/iris/bitstream/handle/10665/255632/WHO-WHE-CPI-2017.29-eng.pdf;jsessionid=9B832A25BB05E0944628D2472E249694?sequence=1]. Accessed 11 December 2020.
[2] Ministry of Health and Medical Industry. Health Information Center of the Ministry of Health and Medical Industry. “Special Center for the Prevention of Dangerous Infectious Diseases (Специальный Центр профилактики опасных инфекционных заболеваний)". [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 11 December 2020.
[3] Embassy of Turkmenistan, Turkey. “Government websites of Turkmenistan”. [https://turkey.tmembassy.gov.tm/en/websites]. Accessed 11 December 2020.

2.3.2b

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

Yes = 1 , No = 0

Current Year Score: 0

There is not sufficient publicly available evidence that Turkmenistan has an electronic reporting surveillance system that collects ongoing or real-time laboratory data. According to the Joint External Evaluation (JEE) for Turkmenistan, conducted in June 2016, Turkmenistan's reporting surveillance system for humans and animals used by the Ministry of Health and Medical Industry and the Ministry of Agriculture and Environmental Protection is still paper-based, although the JEE calls the system robust and adds that Turkmenistan has recently been moving to electronic health records [1]. The report recommends that Turkmenistan develop and implement an interconnected and interoperable real-time reporting system with an integrated electronic Early Warning and Response (EWAR) system. The webpage of the Ministry of Health and Medical Industry says only that specialists at the Special Center for the Prevention of Dangerous Infectious Diseases, where the country's main laboratory is located, collect information and carry out activities with branches in the provinces to prevent the spread of dangerous infections. The page does not explain the means of communication between the center and the provinces [2]. Turkmenistan does not have a national public health institute [3].

[1] World Health Organization (WHO). June 2016. “Joint External Evaluation of IHR Core Capacities of Turkmenistan”. [https://apps.who.int/iris/bitstream/handle/10665/255632/WHO-WHE-CPI-2017.29-eng.pdf;jsessionid=9B832A25BB05E0944628D2472E249694?sequence=1]. Accessed 11 December 2020.
[2] Ministry of Health and Medical Industry. Health Information Center of the Ministry of Health and Medical Industry. “Special Center for the Prevention of Dangerous Infectious Diseases (Специальный Центр профилактики опасных инфекционных заболеваний)". [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 11 December 2020.
[3] Ministry of Foreign Affairs. “Healthcare”. [https://www.mfa.gov.tm/en/articles/7]. Accessed 11 December 2020.

2.4 SURVEILLANCE DATA ACCESSIBILITY AND TRANSPARENCY

2.4.1 Coverage and use of electronic health records

2.4.1a

Are electronic health records commonly in use?

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

Current Year Score: 1

There is evidence that electronic health records are used in Turkmenistan, but there is insufficient evidence that they are used by more than half of the country's healthcare facilities. According to the Joint External Evaluation for Turkmenistan, conducted in June 2016, Turkmenistan has started implementing electronic systems at multiple levels in multiple areas, but at the time the evaluation was conducted electronic health records and databases were in use at a limited number of hospitals and clinics, primarily in Ashgabat [1]. As part of the 5 October 2017 Resolution of the President of Turkmenistan on Improvement of Medical Service to the Population, healthcare centers in Turkmenistan introduced electronic document management [2]. A 2019 World Health Organization report titled "Improving Non-communicable Disease Indicators: Barriers and Opportunities for Health Systems" indicates that there are some electronic health records in use, and that there are national registers for certain diseases in place [3]. The Ministry of Health and Medical Industry has no information about use of electronic health records [4].

[1] World Health Organization (WHO). June 2016. “Joint External Evaluation of IHR Core Capacities of Turkmenistan”. [https://apps.who.int/iris/bitstream/handle/10665/255632/WHO-WHE-CPI-2017.29-eng.pdf;jsessionid=9B832A25BB05E0944628D2472E249694?sequence=1]. Accessed 11 December 2020.
[2] Ministry of Foreign Affairs. “Healthcare”. [https://www.mfa.gov.tm/en/articles/7]. Accessed 11 December 2020.
[3] World Health Organization (WHO). 2019. “Improving Non-communicable Disease Indicators: Barriers and Opportunities for Health Systems (Улучшение Показателей по Неинфекционным Заболеваниям: Барёры и Возможности Систем Здравохранения”. [https://www.euro.who.int/__data/assets/pdf_file/0014/403016/HSS-NCDs_TKM_RUS_WEB.pdf]. Accessed 11 December 2020.
[4] Ministry of Health and Medical Industry. Health Information Center of the Ministry of Health and Medical Industry. “Special Center for the Prevention of Dangerous Infectious Diseases (Специальный Центр профилактики опасных инфекционных заболеваний)". [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 11 December 2020.

2.4.1b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available information about the Ministry of Health's access to electronic health records of individuals in Turkmenistan. According to the Joint External Evaluation (JEE) for Turkmenistan, conducted in June 2016, the bulk of the records system remains paper-based, and only a limited number of hospitals and clinics, primarily in Ashgabat use electronic health records [1]. The JEE also states that there is a need for greater interconnectivity of databases in the healthcare system. A 2019 World Health Organzation report titled "Improving Non-communicable Disease Indicators: Barriers and Opportunities for Health Systems" makes no mention of access to the electronic health records that are used in the country [2]. The Ministry of Health and Medical Industry and its Special Center for the Prevention of Dangerous Infectious Diseases, where the country's main laboratory is located, has no information about its access of electronic health records [3]. Turkmenistan does not have a national public health institute [4].

[1] World Health Organization (WHO). June 2016. “Joint External Evaluation of IHR Core Capacities of Turkmenistan”. [https://apps.who.int/iris/bitstream/handle/10665/255632/WHO-WHE-CPI-2017.29-eng.pdf;jsessionid=9B832A25BB05E0944628D2472E249694?sequence=1]. Accessed 11 December 2020.
[2] World Health Organization (WHO). 2019. “Improving Non-communicable Disease Indicators: Barriers and Opportunities for Health Systems (Улучшение Показателей по Неинфекционным Заболеваниям: Барёры и Возможности Систем Здравохранения”. [https://www.euro.who.int/__data/assets/pdf_file/0014/403016/HSS-NCDs_TKM_RUS_WEB.pdf].

Accessed 11 December 2020.
[3] Ministry of Health and Medical Industry. Health Information Center of the Ministry of Health and Medical Industry. "Special Center for the Prevention of Dangerous Infectious Diseases (Специальный Центр профилактики опасных инфекционных заболеваний)". [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 11 December 2020.
[4] Embassy of Turkmenistan, Turkey. "Government websites of Turkmenistan". [https://turkey.tmembassy.gov.tm/en/websites]. Accessed 11 December 2020.

2.4.1c

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that Turkmenistan has data standards to ensure data is comparable. According to the Joint External Evaluation for Turkmenistan, conducted in June 2016, an appropriate International Organization for Standardization (ISO) accreditation is not yet in place and the report lists several areas where there are deficiencies in data collection and data reporting [1]. The webpage for the Ministry of Health and Medical Industry and its Preventive Centre for Especially Dangerous Infections, where the country's main laboratory is located, has no information on data standards to ensure data is comparable [2]. A 2019 World Health Organization report titled "Improving Non-communicable Disease Indicators: Barriers and Opportunities for Health Systems" mentions the need the standardization of certain aspects of the medical industry, but does not include any details about health records [3]. There is no national public health institution [4].

[1] World Health Organization (WHO). June 2016. "Joint External Evaluation of IHR Core Capacities of Turkmenistan". [https://apps.who.int/iris/bitstream/handle/10665/255632/WHO-WHE-CPI-2017.29-eng.pdf;jsessionid=9B832A25BB05E0944628D2472E249694?sequence=1]. Accessed 11 December 2020.
[2] Ministry of Health and Medical Industry. Health Information Center of the Ministry of Health and Medical Industry. "Special Center for the Prevention of Dangerous Infectious Diseases (Специальный Центр профилактики опасных инфекционных заболеваний)". [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 11 December 2020.
[3] World Health Organization (WHO). 2019. "Improving Non-communicable Disease Indicators: Barriers and Opportunities for Health Systems (Улучшение Показателей по Неинфекционным Заболеваниям: Барёры и Возможности Систем Здравохранения". [https://www.euro.who.int/__data/assets/pdf_file/0014/403016/HSS-NCDs_TKM_RUS_WEB.pdf]. Accessed 11 December 2020.
[4] Embassy of Turkmenistan, Turkey. "Government websites of Turkmenistan". [https://turkey.tmembassy.gov.tm/en/websites]. Accessed 11 December 2020.

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

2.4.2a

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

Yes = 1 , No = 0

Current Year Score: 0

There is not sufficient publicly available evidence that Turkmenistan has established mechanisms at the relevant ministries responsible for animal, human and wildlife surveillance to share data. According to the Joint External Evaluation (JEE) for

Turkmenistan, conducted in June 2016, data sharing between the animal, human and wildlife sectors is not always regular [1]. The JEE states Turkmenistan has a comprehensive intersectoral plan on the prevention of zoonotic diseases, but also says that there is no functioning intersectoral unit or body that regularly receives and reviews veterinary, wildlife and human disease surveillance and other reports. There is no information about the ability of Turkmenistan's ministries responsible for animal, human and wildlife surveillance to share data in reports from the World Organisation for Animal Health (OIE) [2]. The websites of the Ministry of Health and Medical Industry and the Ministry of Agriculture and Environmental Protection have no information about the sharing of data on animal, human and wildlife surveillance among ministries and other relevant state bodies [3, 4]. There is no national public health institution [5]. Turkmenistan is not a member of the JEE Alliance for Health Security Cooperation, which seeks to build capacity internationally across a country's animal and human health, agriculture, defense, development, environment, food safety, planning, public safety, tourism, trade and transport sectors. [6].

[1] World Health Organization (WHO). June 2016. “Joint External Evaluation of IHR Core Capacities of Turkmenistan”. [https://apps.who.int/iris/bitstream/handle/10665/255632/WHO-WHE-CPI-2017.29-eng.pdf;jsessionid=9B832A25BB05E0944628D2472E249694?sequence=1]. Accessed 11 December 2020.
[2] World Organisation for Animal Health (OIE). [http://www.oie.int/]. Accessed 11 December 2020.
[3] Ministry of Health and Medical Industry. Health Information Center of the Ministry of Health and Medical Industry. “Special Center for the Prevention of Dangerous Infectious Diseases (Специальный Центр профилактики опасных инфекционных заболеваний)". [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 11 December 2020.
[4] Ministry of Agriculture and Environmental Protection. [http://minagri.gov.tm]. Accessed 11 December 2020.
[5] Embassy of Turkmenistan, Turkey. “Government websites of Turkmenistan”. [https://turkey.tmembassy.gov.tm/en/websites]. Accessed 11 December 2020.
[6] JEE Alliance for Health Security Cooperation. “Members”. [https://www.jeealliance.org/members/]. Accessed 11 December 2020.

2.4.3 Transparency of surveillance data

2.4.3a

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

Yes = 1 , No = 0

Current Year Score: 0

No publicly available evidence was found that Turkmenistan makes de-identified health surveillance data on disease outbreaks publicly available via reports (or other formats) on government websites.

The webpages of the Ministry of Health and Medical Industry, including the page for Preventive Center on Particularly Dangerous Infections (where the country's main laboratory is located), and the Ministry of Agriculture and Environmental Protection do not have information on de-identified health surveillance data on disease outbreaks [1, 2]. Turkmenistan does not have a national public health institute [3].

[1] Ministry of Health and Medical Industry. Health Information Center of the Ministry of Health and Medical Industry. “Special Center for the Prevention of Dangerous Infectious Diseases (Специальный Центр профилактики опасных инфекционных заболеваний)". [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 11 December 2020.
[2] Ministry of Agriculture and Environmental Protection. [http://minagri.gov.tm]. Accessed 11 December 2020.
[3] Embassy of Turkmenistan, Turkey. “Government websites of Turkmenistan”.

[https://turkey.tmembassy.gov.tm/en/websites]. Accessed 11 December 2020.

2.4.3b

Does the country make de-identified COVID-19 surveillance data (including details such as daily case count, mortality rate, etc) available via daily reports (or other formats) on government websites (such as the Ministry of Health, or similar)?

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence that Turkmenistan makes de-identified COVID-19 surveillance data available via daily reports on government websites. Officially, there have been no cases of COVID-19 in Turkmenistan, there are no daily updates from the government, and the Ministry of Health's website contains no information on COVID-19 cases in Turkmenistan [1, 2]. Radio Free Europe/Radio Liberty reports that hospitals are not even allowed to diagnose patients with COVID-19, despite doctors being regularly tested and not told their results [3]. COVID19 Hasabat, an independent organization, tracks COVID-19 cases in Turkmenistan [4].

[1] Ministry of Health and Medical Industry. [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 22 December 2020.
[2] Coronavirus Resource Center, Johns Hopkins University. [https://coronavirus.jhu.edu/map.html]. Accessed 22 December 2020.
[3] Radio Free Europe/Radio Liberty. 16 November 2020. “Turkmen Villagers Prefer 'Home Treatment' To Ill-Prepared Hospitals”. [https://www.rferl.org/a/turkmen-villagers-ill-prepared-hospitals-home-treatment-coronavirus/30952962.html]. Accessed 22 December 2020.
[4] COVID19 Hasabat. [https://covid19tm.com/en-us/]. Accessed 22 December 2020.

2.4.4 Ethical considerations during surveillance

2.4.4a

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

Yes = 1 , No = 0

Current Year Score: 0

No public evidence was found that Turkmenistan has regulations which safeguard the confidentiality of identifiable health information for individuals, such as that generated through health surveillance activities. The 2017 Law on Information about Private Life and Its Protection protects the confidentiality of personal information, but does not explicitly define this as including health information. [1] Article 1.2 defines "personal information" as any information, certain and identifiable, relating to an individual, recorded on electronic, paper or other tangible media. Article 1.17 defines the confidentiality of personal information: obligatory for the person who obtained access to use of certain personal information not to provide such information to third parties without consent of the subject, which ensures confidentiality of personal information. Article 5 guarantees the protection and confidentiality of personal information. The only time the law specifically mentions health data is in article 21.1, which prohibits the collection and processing of health data, except in exceptional circumstances, but does not specifically mention confidentiality [1]. The websites of the Ministry of Health and the Ministry of Agriculture and Environmental Protection do not have information on safeguards for the confidentiality of health information [2, 3]. There is no national public health institute [4].

[1] International Labour Organization. 20 March 2017. “The Law of Turkmenistan no. 519-V, About information on private life and its protection (Об информации о личной жизни и ее защите)”. [http://ilo.org/dyn/natlex/docs/ELECTRONIC/107056/131641/F419973633/519.pdf]. Accessed 27 January 2021.
[2] Ministry of Health and Medical Industry. Health Information Center of the Ministry of Health and Medical Industry. “Special Center for the Prevention of Dangerous Infectious Diseases (Специальный Центр профилактики опасных инфекционных заболеваний)". [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 22 December 2020.
[3] Ministry of Agriculture and Environmental Protection. [http://minagri.gov.tm]. Accessed 22 December 2020.
[4] Embassy of Turkmenistan, Turkey. “Government websites of Turkmenistan”. [https://turkey.tmembassy.gov.tm/en/websites]. Accessed 22 December 2020.

2.4.4b

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

Yes = 1 , No = 0

Current Year Score: 0

No publicly available evidence was found that Turkmenistan has laws or guidelines safeguarding the confidentiality of identifiable information for individuals, or laws or guidelines about protection from cyber attacks. There is no evidence from the Joint External Evaluation for Turkmenistan, conducted in June 2016, that laws or guidelines on health information confidentiality exist [1]. The webpages for Turkmenistan's Health Ministry and its Preventive Center for Especially Dangerous Infections, where the country's main laboratory is located, do not have information on health information confidentiality rules [2]. The 2017 Law on Information about Private Life and Its Protection does not mention confidentiality of identifiable health information for individuals, and does not mention protection from cyber attacks [3]. According to a report from the Silk Road Project, the country has only one internet provider, Turkmentelecom, and the internet in Turkmenistan is widely censored, with a number of websites are automatically filtered by government agencies, mitigating the chances of a cyber attack that could access information on the health records of individuals [4]. Turkmenistan does not have a national public health institute [5].

[1] World Health Organization (WHO). June 2016. “Joint External Evaluation of IHR Core Capacities of Turkmenistan”. [https://apps.who.int/iris/bitstream/handle/10665/255632/WHO-WHE-CPI-2017.29-eng.pdf;jsessionid=9B832A25BB05E0944628D2472E249694?sequence=1]. Accessed 11 December 2020.
[2] Ministry of Health and Medical Industry. Health Information Center of the Ministry of Health and Medical Industry. “Special Center for the Prevention of Dangerous Infectious Diseases (Специальный Центр профилактики опасных инфекционных заболеваний)". [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 11 December 2020.
[3] CIS Legislation. 20 March 2017. “The Law of Turkmenistan no. 519-V, About information on private life and its protection”. [http://cis-legislation.com/document.fwx?rgn=95922]. Accessed 11 December 2020.
[4] The Silk Road Project: From trade route to information superhighway. "The condition of The Internet in Turkmenistan". [http://www.silkproject.org/internetinturkmenistan.htm]. Accessed 11 December 2020.
[5] Embassy of Turkmenistan, Turkey. “Government websites of Turkmenistan”. [https://turkey.tmembassy.gov.tm/en/websites]. Accessed 11 December 2020.

2.4.5 International data sharing

2.4.5a

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

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

Current Year Score: 0

There is no publicly available evidence that Turkmenistan's 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 for one or more diseases.

The webpages for the Ministry of Health and Medical Industry's Special Center for the Prevention of Dangerous Infectious Diseases (where the country's main laboratory is located) and the Foreign Ministry have no information on agreements with countries in the region to share surveillance data during a public health emergency [1, 2].

Turkmenistan is not listed as being a member of the United Nations Food and Agriculture Organisation's One Health multisectoral system, although membership in the program was among the recommendations made in the World Health Organization's 2016 Joint External Evaluation for Turkmenistan [3, 4]. Turkmenistan does not have a national public health institute. [5]

There are no reports in Turkmenistan's media about the country having a cooperative agreement to share surveillance data during a public health emergency with other countries in the region [6, 7, 8, 9]. Turkmenistan has not shared information related to the COVID-19 crisis. [10, 11] Officially, there have been zero cases of the disease in the country [10, 11].

[1] Ministry of Health and Medical Industry. Health Information Center of the Ministry of Health and Medical Industry. “Special Center for the Prevention of Dangerous Infectious Diseases (Специальный Центр профилактики опасных инфекционных заболеваний)". [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 11 December 2020.
[2] Ministry of Foreign Affairs. “Healthcare”. [https://www.mfa.gov.tm/en/articles/7]. Accessed 11 December 2020.
[3] JEE Alliance. “One Health approach integral for the multisectoral health security capacity building. Members”. [https://www.jeealliance.org/members/]. Accessed 11 December 2020.
[4] World Health Organization (WHO). June 2016. “Joint External Evaluation of IHR Core Capacities of Turkmenistan”. [https://apps.who.int/iris/bitstream/handle/10665/255632/WHO-WHE-CPI-2017.29-eng.pdf;jsessionid=9B832A25BB05E0944628D2472E249694?sequence=1]. Accessed 11 December 2020.
[5] Embassy of Turkmenistan, Turkey. “Government websites of Turkmenistan”. [https://turkey.tmembassy.gov.tm/en/websites]. Accessed 11 December 2020.
[6] Türkmenistan Bu Gün. [[http://tdh.gov.tm]. Accessed 11 December 2020.
[7] Turkmenportal. [https://turkmenportal.com/]. Accessed 11 December 2020.
[8] Khronika Turkmenistana. [https://www.hronikatm.com/]. Accessed 11 December 2020.
[9] Radio Free Europe/Radio Liberty. "Turkmen service." [https://rus.azathabar.com/]. Accessed 11 December 2020.
[10] Health and Human Rights Journal. 5 October 2020. "COVID-19 in Turkmenistan: No Data, No Health Rights". [https://www.hhrjournal.org/2020/10/covid-19-in-turkmenistan-no-data-no-health-rights/]. Accessed 27 January 2021.
[11] COVID-19 Dashboard by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins University (JHU). [https://coronavirus.jhu.edu/map.html]. Accessed 27 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 evidence that Turkmenistan has a plan to provide support at the sub-national level to conduct contact tracing in the event of an active or future public health emergency.

There is no evidence at all of contact tracing on the website of the Ministry of Healthcare and the Medical Industry, the general government website, or any major news websites focused on Turkmenistan [1, 2, 3, 4, 5, 6]. There is no mention of such a policy in the summaries of Turkmenistan's policy responses to the COVID-19 pandemic published by the Organization for Economic Co-operation and Development, the International Monetary Fund, the World Bank or the European Bank for Reconstruction and Development [7, 8, 9, 10]. No such plan is mentioned in the World Health Organization's Joint External Evaluation of Turkmenistan, conducted in 2016 [11].

[1] Ministry of Health and Medical Industry. Health Information Center of the Ministry of Health and Medical Industry. “Special Center for the Prevention of Dangerous Infectious Diseases (Специальный Центр профилактики опасных инфекционных заболеваний)". [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 11 December 2020.
[2] Government of Turkmenistan. [http://www.turkmenistan.gov.tm].
[3] Türkmenistan Bu Gün. [http://tdh.gov.tm]. Accessed 11 December 2020.
[4] Turkmenportal. [https://turkmenportal.com/]. Accessed 11 December 2020.
[5] Khronika Turkmenistana. [https://www.hronikatm.com/]. Accessed 11 December 2020.
[6] Radio Free Europe/Radio Liberty. "Turkmen service." [https://rus.azathabar.com/]. Accessed 11 December 2020.
[7] Organization for Economic Co-operation and Development. 2020. "COVID-19 crisis response in Central Asia." [http://www.oecd.org/coronavirus/policy-responses/covid-19-crisis-response-in-central-asia-5305f172/#section-d1e1524]. Accessed 11 December 2020.
[8] International Monetary Fund. 2020. "Policy responses to COVID-19." [https://www.imf.org/en/Topics/imf-and-covid19/Policy-Responses-to-COVID-19]. Accessed 11 December 2020.
[9] World Bank. 2020. "Social Protection and Jobs Responses to COVID-19: A Real-Time Review of Country Measures." [https://www.ugogentilini.net/wp-content/uploads/2020/05/Country-SP-COVID-responses_May15.pdf]. Accessed 11 December 2020.
[10] European Bank for Reconstruction and Development. 2020. "Responding to the Coronavirus Crisis. Update on Turkmenistan (13/05/20)." [https://www.ebrd.com/cs/Satellite?c=Content&cid=1395289943512&d=&pagename=EBRD%2FContent%2FDownloadDocument]. Accessed 11 December 2020.
[11] World Health Organization (WHO). June 2016. “Joint External Evaluation of IHR Core Capacities of Turkmenistan”. [https://apps.who.int/iris/bitstream/handle/10665/255632/WHO-WHE-CPI-2017.29-eng.pdf;jsessionid=9B832A25BB05E0944628D2472E249694?sequence=1]. Accessed 11 December 2020.

2.5.1b

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

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

Current Year Score: 0

There is no publicly available evidence that Turkmenistan provides wraparound services to enable infected people and their contacts to self-isolate or quarantine as recommended.

In 2019, Radio Free Europe/Radio Liberty (RFE/RL) reported that people in Turkmenistan often seek "alternative" methods of treatment because proper healthcare services are often too expensive or unavailable to them [1]. The website of the Ministry of Healthcare and the Medical Industry contains no information on wraparound services [2].

The European Bank for Reconstruction and Development reports that Turkmenistan has not introduced any kind of wraparound services for those with COVID-19, or those suspected of having it, and RFE/RL reports that hospitals are not even allowed to diagnose patients with COVID-19 [3, 4]. No wraparound services are mentioned in the World Health Organization's Joint External Evaluation of Turkmenistan, conducted in 2016 [5].

[1] Radio Free Europe/Radio Liberty. 16 December 2019. “Sick Turkmen Avoiding Treatment And Using 'Alternative' Methods Due To Pricey Surgery, Medicine”. [https://www.rferl.org/a/sick-turkmen-expensive-medicine-hospital-avoiding-treatment-alternative-medicine/30328253.html]. Accessed 11 December 2020.
[2] Ministry of Health and Medical Industry. Health Information Center of the Ministry of Health and Medical Industry. “Special Center for the Prevention of Dangerous Infectious Diseases (Специальный Центр профилактики опасных инфекционных заболеваний)". [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 11 December 2020.
[3] European Bank for Reconstruction and Development. 9 September 2020. "Responding to the Coronavirus Crisis. Update on Turkmenistan (09/11/20).” [https://www.ebrd.com/cs/Satellite?c=Content&cid=1395289943512&d=&pagename=EBRD%2FContent%2FDownloadDocument]. Accessed 11 December 2020.
[4] Radio Free Europe/Radio Liberty. 16 November 2020. “Turkmen Villagers Prefer 'Home Treatment' To Ill-Prepared Hospitals”. [https://www.rferl.org/a/turkmen-villagers-ill-prepared-hospitals-home-treatment-coronavirus/30952962.html]. Accessed 11 December 2020.
[5] World Health Organization (WHO). June 2016. “Joint External Evaluation of IHR Core Capacities of Turkmenistan”. [https://apps.who.int/iris/bitstream/handle/10665/255632/WHO-WHE-CPI-2017.29-eng.pdf;jsessionid=9B832A25BB05E0944628D2472E249694?sequence=1]. Accessed 11 December 2020.

2.5.1c

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence that Turkmenistan makes de-identified data on contact tracing efforts for COVID-19 available via daily reports on government websites. Officially, there have been no cases of COVID-19 in Turkmenistan, there are no daily

updates from the government, and the Ministry of Health's website contains no information on COVID-19 cases in Turkmenistan, or on contact tracing efforts [1, 2]. Radio Free Europe/Radio Liberty reports that hospitals are not even allowed to diagnose patients with COVID-19, despite doctors being regularly tested and not told their results [3]. COVID19 Hasabat, an independent non-governmental organization, tracks COVID-19 cases in Turkmenistan [4].

[1] Ministry of Health and Medical Industry. [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 22 December 2020.
[2] Coronavirus Resource Center, Johns Hopkins University. [https://coronavirus.jhu.edu/map.html]. Accessed 22 December 2020.
[3] Radio Free Europe/Radio Liberty. 16 November 2020. “Turkmen Villagers Prefer 'Home Treatment' To Ill-Prepared Hospitals”. [https://www.rferl.org/a/turkmen-villagers-ill-prepared-hospitals-home-treatment-coronavirus/30952962.html]. Accessed 22 December 2020.
[4] COVID19 Hasabat. [https://covid19tm.com/en-us/]. Accessed 22 December 2020.

2.5.2 Point of entry management

2.5.2a

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

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

Current Year Score: 0

There is no publicly available evidence that Turkmenistan 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 for an active or future public health emergency.

The 2016 Joint External Evaluation (JEE) of Turkmenistan notes that there are strong links between the Ministry of Health and Medical Industry, the Ministry of Defense, and the State Border Service, stating that the links include communication and information sharing, but the JEE does not describe an agreement for the monitoring of suspected and potential cases amongst international travelers during a public health emergency [1]. No further information is available on the websites of the the Ministry of Health and Medical Industry, the Ministry of Defense, and the State Border Service [2, 3, 4].

[1] World Health Organization (WHO). June 2016. “Joint External Evaluation of IHR Core Capacities of Turkmenistan”. [https://apps.who.int/iris/bitstream/handle/10665/255632/WHO-WHE-CPI-2017.29-eng.pdf;jsessionid=9B832A25BB05E0944628D2472E249694?sequence=1]. Accessed 11 December 2020.
[2] Ministry of Health and Medical Industry. Health Information Center of the Ministry of Health and Medical Industry. “Special Center for the Prevention of Dangerous Infectious Diseases (Специальный Центр профилактики опасных инфекционных заболеваний)". [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 11 December 2020.
[3] Ministry of Defence. [http://milligosun.gov.tm]. Accessed 11 December 2020.
[4] State Border Service. [https://serhetabat-dovletabat.gov.tm/bas-sahypa]. Accessed 11 December 2020.

2.6 EPIDEMIOLOGY WORKFORCE

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

2.6.1a

Does the country meet one of the following criteria?
- Applied epidemiology training program (such as FETP) is available in country
- Resources are provided by the government to send citizens to another country to participate in applied epidemiology training programs (such as FETP)

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

Current Year Score: 1

There is evidence that Turkmenistan has had outside organizations organize Field Epidemiology Training Programs (FETP) in the country, but there is no evidence that it has sent its personnel for training abroad. Training Programs in Epidemiology and Public Health Interventions Network (TEPHINET) provided logistical support for a two-year Field Epidemiological and Laboratory Training Program (FELTP) in Turkmenistan, so that participants could complete FELTP core competencies and successfully graduate from the program. [1] That program is listed as ongoing with the United States Center for Disease Control and Prevention (CDC) helping to provide funding. [1] According to the Joint External Evaluation (JEE) for Turkmenistan, conducted in June 2016, no structured course in applied epidemiology equivalent to the short-term FETP were offered in Turkmenistan as part of education training, though the Turkmen State Medical University did include some elements of FETP in a specialized education program. [2] The JEE said that the university's Preventative Medicine and Epidemiology program incorporates core concepts of field epidemiology and can be generally considered equivalent to the full FETP course. The webpage for the Ministry of Health and Medical Industry has no information about FETP and FELTP programs [3].

[1] Training Programmes in Epidemiology and Public Health Interventions Network (TEPHINET). 2019. Support to the Central Asia Regional Field Epidemiology and Laboratory Training Program. [https://www.tephinet.org/support-to-the-central-asia-regional-field-epidemiology-and-laboratory-training-program]. Accessed 12 February 2019
[2] World Health Organization (WHO). June 2016. “Joint External Evaluation of IHR Core Capacities of Turkmenistan”. [https://apps.who.int/iris/bitstream/handle/10665/255632/WHO-WHE-CPI-2017.29-eng.pdf;jsessionid=9B832A25BB05E0944628D2472E249694?sequence=1]. Accessed 11 December 2020.
[3] Ministry of Health and Medical Industry. Health Information Center of the Ministry of Health and Medical Industry. “Special Center for the Prevention of Dangerous Infectious Diseases (Специальный Центр профилактики опасных инфекционных заболеваний)". [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 11 December 2020.

2.6.1b

Are the available field epidemiology training programs explicitly inclusive of animal health professionals or is there a specific animal health field epidemiology training program offered (such as FETPV)?

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence there are Field Epidemiology Training Programs for Veterinarians (FETPV) in Turkmenistan. According to the Joint External Evaluation for Turkmenistan, conducted in June 2016, no animal experts or veterinarians have completed the FETP in Turkmenistan, and none were sent to attend the parent FETP course in Kazakhstan [1]. The webpage for the Training Programs in Epidemiology and Public Health Interventions Network (TEPHINET) lists Turkmenistan as being part of the FETP program, but not part of the FETPV program [2]. The webpages of the Ministry of Health and Medical Industry and the Ministry of Agriculture and Environmental Protection have no information about FETPV or equivalent training [3, 4].

[1] World Health Organization (WHO). June 2016. "Joint External Evaluation of IHR Core Capacities of Turkmenistan". [https://apps.who.int/iris/bitstream/handle/10665/255632/WHO-WHE-CPI-2017.29-eng.pdf;jsessionid=9B832A25BB05E0944628D2472E249694?sequence=1]. Accessed 11 December 2020.
[2] Training Programmes in Epidemiology and Public Health Interventions Network (TEPHINET). "Training Programs". [https://www.tephinet.org/training-programs]. Accessed 11 December 2020.
[3] Ministry of Health and Medical Industry. Health Information Center of the Ministry of Health and Medical Industry. "Special Center for the Prevention of Dangerous Infectious Diseases (Специальный Центр профилактики опасных инфекционных заболеваний)". [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 11 December 2020.
[4] Ministry of Agriculture and Environmental Protection. [http://minagri.gov.tm]. Accessed 11 December 2020.

2.6.2 Epidemiology workforce capacity

2.6.2a

Is there public evidence that the country has at least 1 trained field epidemiologist per 200,000 people?
Yes = 1 , No = 0

Current Year Score: 1

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: 0

There is insufficient publicly-available evidence that Turkmenistan has an overarching national public health emergency response plan that addresses planning for multiple communicable diseases with pandemic potential. According to the Joint External Evaluation (JEE) for Turkmenistan, conducted in June 2016, Turkmenistan's National Health Emergency Preparedness and Response Plan addresses multi-hazard national public health emergency preparedness and response to meet IHR core capacity requirements, but does not specifically mention communicable diseases [1]. The JEE further states that Turkmenistan's Ministry of Defense helped draw up the plan, but the plan was not available on the Ministry's website [1, 2]. In 2018 the World Health Organization (WHO) reported that Turkmenistan had updated its national pandemic influenza preparedness plan, and in 2017 the WHO reported that Turkmenistan had strengthened national emergency preparedness and response capabilities in line with the International Health Regulations ahead of the Asian Indoor and Martial Arts Games the country hosted in September 2017 [3, 4]. However, neither report provides further details, and the latter does not include specifically mention communicable diseases [3, 4]. In addition, on 7 February 2020, the government adopted "Interim Guidelines for the Prevention, Diagnosis and Treatment of the New Coronavirus", which guide the work of healthcare professionals, but it is unclear whether this plan was taken from an overarching one or not [5]. The JEE notes that the emergency response plan would benefit from improved connections between the national public health and veterinary sectors, as per the requirements of the One Health approach [1]. The webpages for the Ministry of Health and Medical Industry and the Ministry of Agriculture and Water Resources have no information about the national public emergency preparedness and response plan [6, 7].

[1] World Health Organization (WHO). June 2016. “Joint External Evaluation of IHR Core Capacities of Turkmenistan”. [https://apps.who.int/iris/bitstream/handle/10665/255632/WHO-WHE-CPI-2017.29-eng.pdf;jsessionid=9B832A25BB05E0944628D2472E249694?sequence=1]. Accessed 11 December 2020.
[2] Ministry of Defence. [http://milligosun.gov.tm]. Accessed 11 December 2020.
[3] World Health Organization (WHO). 10 April 2018. “Turkmenistan updates national pandemic influenza preparedness plan”. [http://www.euro.who.int/en/health-topics/communicable-diseases/influenza/news/news/2018/4/turkmenistan-updates-national-pandemic-influenza-preparedness-plan]. Accessed 11 December 2020.
[4] World Health Organization (WHO). 23 May 2017. “Turkmenistan boosts emergency preparedness ahead of 5th Asian Indoor and Martial Arts Games”. [http://www.euro.who.int/en/countries/turkmenistan/news/news/2017/05/turkmenistan-boosts-emergency-preparedness-ahead-of-5th-asian-indoor-and-martial-arts-games]. Accessed 11 December 2020.
[5] Turkmenportal. 31 March 2020. "Turkmenistan's epidemiological situation vis-à-vis the COVID 19 coronavirus remains under control." ("Эпидемиологическая ситуация в Туркменистане по коронавирусу COVID 19 остаётся под контролем.") [https://turkmenportal.com/blog/26422/epidemiologicheskaya-situaciya-v-turkmenistane-po-koronavirusu-covid-19-ostaetsya-pod-kontrolem].
[6] Ministry of Health and Medical Industry. Health Information Center of the Ministry of Health and Medical Industry. “Special Center for the Prevention of Dangerous Infectious Diseases (Специальный Центр профилактики опасных инфекционных заболеваний)". [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 11 December 2020.
[7] Ministry of Agriculture and Environmental Protection. [http://minagri.gov.tm]. Accessed 11 December 2020.

3.1.1b

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

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

Current Year Score: 0

There is insufficient publicly-available evidence that Turkmenistan has an overarching national public health emergency response plan that addresses planning for multiple communicable diseases with pandemic potential. According to the Joint

External Evaluation (JEE) for Turkmenistan, conducted in June 2016, Turkmenistan's National Health Emergency Preparedness and Response Plan addresses multi-hazard national public health emergency preparedness and response to meet IHR core capacity requirements, but does not specifically mention communicable diseases [1]. The JEE further states that Turkmenistan's Ministry of Defense helped draw up the plan, but the plan was not available on the Ministry's website [1, 2]. In 2018 the World Health Organization (WHO) reported that Turkmenistan had updated its national pandemic influenza preparedness plan, and in 2017 the WHO reported that Turkmenistan had strengthened national emergency preparedness and response capabilities in line with the International Health Regulations ahead of the Asian Indoor and Martial Arts Games the country hosted in September 2017 [3, 4]. However, neither report provides further details, and the latter does not include specifically mention communicable diseases [3, 4]. In addition, on 7 February 2020, the government adopted "Interim Guidelines for the Prevention, Diagnosis and Treatment of the New Coronavirus", which guide the work of healthcare professionals, but it is unclear whether this plan was taken from an overarching one or not [5]. The webpages for the Ministry of Health and Medical Industry and the Ministry of Agriculture and Water Resources have no information about the national public emergency preparedness and response plan [6, 7].

[1] World Health Organization (WHO). June 2016. “Joint External Evaluation of IHR Core Capacities of Turkmenistan”. [https://apps.who.int/iris/bitstream/handle/10665/255632/WHO-WHE-CPI-2017.29-eng.pdf;jsessionid=9B832A25BB05E0944628D2472E249694?sequence=1]. Accessed 11 December 2020.
[2] Ministry of Defence. [http://milligosun.gov.tm]. Accessed 11 December 2020.
[3] World Health Organization (WHO). 10 April 2018. “Turkmenistan updates national pandemic influenza preparedness plan”. [http://www.euro.who.int/en/health-topics/communicable-diseases/influenza/news/news/2018/4/turkmenistan-updates-national-pandemic-influenza-preparedness-plan]. Accessed 11 December 2020.
[4] World Health Organization (WHO). 23 May 2017. “Turkmenistan boosts emergency preparedness ahead of 5th Asian Indoor and Martial Arts Games”. [http://www.euro.who.int/en/countries/turkmenistan/news/news/2017/05/turkmenistan-boosts-emergency-preparedness-ahead-of-5th-asian-indoor-and-martial-arts-games]. Accessed 11 December 2020.
[5] Turkmenportal. 31 March 2020. "Turkmenistan's epidemiological situation vis-à-vis the COVID 19 coronavirus remains under control." ("Эпидемиологическая ситуация в Туркменистане по коронавирусу COVID 19 остаётся под контролем.") [https://turkmenportal.com/blog/26422/epidemiologicheskaya-situaciya-v-turkmenistane-po-koronavirusu-covid-19-ostaetsya-pod-kontrolem].
[6] Ministry of Health and Medical Industry. Health Information Center of the Ministry of Health and Medical Industry. “Special Center for the Prevention of Dangerous Infectious Diseases (Специальный Центр профилактики опасных инфекционных заболеваний)". [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 11 December 2020.
[7] Ministry of Agriculture and Environmental Protection. [http://minagri.gov.tm]. Accessed 11 December 2020.

3.1.1c

If an overarching plan is in place, does it include considerations for pediatric and/or other vulnerable populations?
Yes = 1 , No /no plan in place= 0

Current Year Score: 0

There is no public evidence that Turkmenistan has an overarching national public health emergency response plan that addresses planning for multiple communicable diseases with pandemic potential and includes considerations for pediatric or other vulnerable populations. According to the Joint External Evaluation (JEE) for Turkmenistan, conducted in June 2016, Turkmenistan's National Health Emergency Preparedness and Response Plan addresses multi-hazard national public health emergency preparedness and response to meet IHR core capacity requirements, but does not specifically mention communicable diseases [1]. The JEE does not mention whether the plan addresses vulnerable populations. [1] Although the JEE states that Turkmenistan's Ministry of Defense helped draw up the plan, the plan is not available on the Ministry's website [1, 2]. In 2018 the World Health Organization (WHO) reported that Turkmenistan had updated its national pandemic

influenza preparedness plan, and in 2017 the WHO reported that Turkmenistan had strengthened national emergency preparedness and response capabilities in line with the International Health Regulations ahead of the Asian Indoor and Martial Arts Games the country hosted in September 2017 [3, 4]. However, neither report mentions vulnerable populations, and the latter does not include specifically mention communicable diseases [3, 4]. In addition, on 7 February 2020, the government adopted Interim Guidelines for the Prevention, Diagnosis and Treatment of the New Coronavirus, which guide the work of healthcare professionals, but the guidelines are not publicly available, and it is unclear whether they include measures for vulnerable populations [5]. The webpages for the Ministry of Health and Medical Industry and the Ministry of Agriculture and Water Resources have no information about the national public emergency preparedness and response plan [6, 7].

[1] World Health Organization (WHO). June 2016. “Joint External Evaluation of IHR Core Capacities of Turkmenistan”. [https://apps.who.int/iris/bitstream/handle/10665/255632/WHO-WHE-CPI-2017.29-eng.pdf;jsessionid=9B832A25BB05E0944628D2472E249694?sequence=1]. Accessed 11 December 2020.
[2] Ministry of Defence. [http://milligosun.gov.tm]. Accessed 11 December 2020.
[3] World Health Organization (WHO). 10 April 2018. “Turkmenistan updates national pandemic influenza preparedness plan”. [http://www.euro.who.int/en/health-topics/communicable-diseases/influenza/news/news/2018/4/turkmenistan-updates-national-pandemic-influenza-preparedness-plan]. Accessed 11 December 2020.
[4] World Health Organization (WHO). 23 May 2017. “Turkmenistan boosts emergency preparedness ahead of 5th Asian Indoor and Martial Arts Games”. [http://www.euro.who.int/en/countries/turkmenistan/news/news/2017/05/turkmenistan-boosts-emergency-preparedness-ahead-of-5th-asian-indoor-and-martial-arts-games]. Accessed 11 December 2020.
[5] Turkmenportal. 31 March 2020. "Turkmenistan's epidemiological situation vis-à-vis the COVID 19 coronavirus remains under control." ("Эпидемиологическая ситуация в Туркменистане по коронавирусу COVID 19 остаётся под контролем.") [https://turkmenportal.com/blog/26422/epidemiologicheskaya-situaciya-v-turkmenistane-po-koronavirusu-covid-19-ostaetsya-pod-kontrolem].
[6] Ministry of Health and Medical Industry. Health Information Center of the Ministry of Health and Medical Industry. “Special Center for the Prevention of Dangerous Infectious Diseases (Специальный Центр профилактики опасных инфекционных заболеваний)". [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 11 December 2020.
[7] Ministry of Agriculture and Environmental Protection. [http://minagri.gov.tm]. Accessed 11 December 2020.

3.1.1d

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

Yes = 1 , No = 0

Current Year Score: 0

2020

WHO Strategic Partnership for IHR and Health Security (SPH)

3.1.2 Private sector involvement in response planning

3.1.2a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence that Turkmenistan has a mechanism for engaging with the private sector to assist with outbreak emergency preparedness and response. The Joint External Evaluation for Turkmenistan, conducted in June 2016, notes that integration and enrollment of the governmental and private sectors is essential for the national laboratory system, but the report makes no other mention of private sector activities in Turkmenistan's healthcare or preventive medicine sectors [1]. According to the JEE, it is unknown how many doctors and veterinarians work in the private sector, but it is believed to be very few [1]. A 2019 report from the World Bank states that tight administrative controls and the public sector's dominant role in economic activity have hindered private sector development in Turkmenistan [2]. The website of the Ministry of Health and Medical Industry does not have information about a mechanism for engaging private sector to assist with outbreak emergency preparedness and response [3]. The State Commission for Emergency Situations does not have a website [4].

[1] World Health Organization (WHO). June 2016. "Joint External Evaluation of IHR Core Capacities of Turkmenistan". [https://apps.who.int/iris/bitstream/handle/10665/255632/WHO-WHE-CPI-2017.29-eng.pdf;jsessionid=9B832A25BB05E0944628D2472E249694?sequence=1]. Accessed 11 December 2020.
[2] The World Bank. 2019. The World Bank in Turkmenistan. [http://www.worldbank.org/en/country/turkmenistan/overview]. Accessed 11 December 2020.
[3] Ministry of Health and Medical Industry. Health Information Center of the Ministry of Health and Medical Industry. "Special Center for the Prevention of Dangerous Infectious Diseases (Специальный Центр профилактики опасных инфекционных заболеваний)". [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 11 December 2020.
[4] Embassy of Turkmenistan, Republic of Turkey. Government websites of Turkmenistan. [https://turkey.tmembassy.gov.tm/en/websites]. Accessed 11 December 2020.

3.1.3 Non-pharmaceutical interventions planning

3.1.3a

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

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

Current Year Score: 0

There is insufficient publicly available evidence that Turkmenistan has a plan or guidelines in place to implement non-pharmaceutical interventions (NPIs) during an epidemic or pandemic for one or more diseases.

The Joint External Evaluation for Turkmenistan, conducted in June 2016, makes no mention of NPIs [1]. The webpage for the Ministry of Health and Medical Industry does not have any information about NPIs [2]. The State Commission for Emergency Situations does not have a website [3].

On 7 February 2020, the government adopted the Interim Guidelines for the Prevention, Diagnosis and Treatment of the New Coronavirus, which guide the work of healthcare professionals, but there is no evidence that this plan was taken from an overarching one, or that it includes NPIs [4]. Subsequently during 2020, at various times, mosques were closed, trains halted, and citizens ordered to wear masks, though official reasons other than the COVID-19 pandemic were given for some of these measures, and others were not explained [5, 6, 7].

In June 2020, Radio Free Europe/Radio Liberty reported that the Infection Hospital in Ashgabat had been placed under a strict lockdown, ostensibly because of COVID-19, though not officially [8]

[1] World Health Organization (WHO). June 2016. “Joint External Evaluation of IHR Core Capacities of Turkmenistan”. [https://apps.who.int/iris/bitstream/handle/10665/255632/WHO-WHE-CPI-2017.29-eng.pdf;jsessionid=9B832A25BB05E0944628D2472E249694?sequence=1]. Accessed 11 December 2020.
[2] Ministry of Health and Medical Industry. Health Information Center of the Ministry of Health and Medical Industry. “Special Center for the Prevention of Dangerous Infectious Diseases (Специальный Центр профилактики опасных инфекционных заболеваний)". [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 11 December 2020.
[3] Embassy of Turkmenistan, Republic of Turkey. Government websites of Turkmenistan. [https://turkey.tmembassy.gov.tm/en/websites]. Accessed 7 December 2020.
[4] Turkmenportal. 31 March 2020. "Turkmenistan's epidemiological situation vis-à-vis the COVID 19 coronavirus remains under control." ("Эпидемиологическая ситуация в Туркменистане по коронавирусу COVID 19 остаётся под контролем.") [https://turkmenportal.com/blog/26422/epidemiologicheskaya-situaciya-v-turkmenistane-po-koronavirusu-covid-19-ostaetsya-pod-kontrolem].
[5] TurkmenPortal. 17 July 2020. Mosques in Turkmenistan Closed until the 31st of July for Disease Prevention (В Туркменистане до 31 июля мечети закрыты на профилактику)". [https://turkmenportal.com/blog/28882/v-turkmenistane-do-31-iyulya-mecheti-zakryty-na-profilaktiku]. Accessed 22 December 2020.
[6] TurkmenPortal. 13 July 2020. "The Movement of Passenger Trains in Turkmenistan to be Temporarily Suspended (Движение пассажирских поездов по Туркменистану будет временно приостановлено)". [https://turkmenportal.com/blog/28822/dvizhenie-passazhirskih-poezdov-po-turkmenistanu-budet-vremenno-priostanovleno]. Accessed 22 December 2020.
[7] Voice of America. 30 November 2020. "Turkmenistan Clamps Down on COVID-19 Criticism ". [https://www.voanews.com/extremism-watch/turkmenistan-clamps-down-covid-19-criticism]. Accessed 22 December 2020.
[8] Radio Free Europe/Radio Liberty. 16 June 2020. "COVID-19: 'Virus-Free' Turkmenistan Reportedly Locks Down Two Major Hospitals". [https://www.rferl.org/a/covid-regional-wrapup-june-16/30673830.html]. Accessed 22 December 2020.

3.2 EXERCISING RESPONSE PLANS

3.2.1 Activating response plans

3.2.1a

Does the country meet one of the following criteria?
- Is there evidence that the country has activated their national emergency response plan for an infectious disease outbreak in the past year?
- Is there evidence that the country has completed a national-level biological threat-focused exercise (either with WHO or separately) in the past year?
Needs to meet at least one of the criteria to be scored a 1 on this measure. , Yes for both = 1 , Yes for one = 1 , No for both = 0

Current Year Score: 0

There is no publicly available evidence that Turkmenistan has activated an emergency response plan within the last year or completed a national-level biological threat-focused exercise. Furthermore, there is no evidence that Turkmenistan has a national emergency response plan for infectious diseases.

According to the Joint External Evaluation (JEE) for Turkmenistan, conducted in June 2016, Turkmenistan's National Health

Emergency Preparedness and Response Plan addresses multi-hazard national public health emergency preparedness and response to meet IHR core capacity requirements, but does not specifically mention communicable diseases [1]. The JEE reports that Turkmenistan's Ministry of Defense helped draw up the plan, but the plan was not available on the Ministry's website [1,2].

In 2018 the World Health Organization (WHO) reported that Turkmenistan had updated its national pandemic influenza preparedness plan, and in 2017 the WHO reported that Turkmenistan had strengthened national emergency preparedness and response capabilities in line with the International Health Regulations ahead of the Asian Indoor and Martial Arts Games the country hosted in September 2017 [3, 4]. However, neither report provides further details, and the latter does not specifically mention communicable diseases. [3, 4]

There is no evidence that Turkmenistan has completed a national-level biological threat-focused exercise in the past year on the websites of the Ministry of Health and Medical Industry or the Ministry of Defense [5, 6].

Turkmenistan's authorities have officially acknowledged zero cases of COVID-19 in the country, though various measures have been taken to combat the virus [7, 8]. On 7 February 2020 the government adopted the Interim Guidelines for the Prevention, Diagnosis and Treatment of the New Coronavirus, which guide the work of healthcare professionals [9]. In March 2020, the infectious disease hospitals in the country's two largest cities, Ashgabat and Türkmenabat, were converted into quarantine facilities, as were hospitals in all provincial capitals and wards in rural hospitals [10, 11]. Subsequently during 2020, at various times, mosques were closed, trains halted, and citizens ordered to wear masks, though official reasons other than the COVID-19 pandemic were given for some of these measures, and others were not explained [12, 13, 14]. In June 2020, Radio Free Europe/Radio Liberty reported that the Infection Hospital in Ashgabat had been placed under a strict lockdown, ostensibly because of COVID-19, though not officially [15].

[1] World Health Organization (WHO). June 2016. "Joint External Evaluation of IHR Core Capacities of Turkmenistan". [https://apps.who.int/iris/bitstream/handle/10665/255632/WHO-WHE-CPI-2017.29-eng.pdf;jsessionid=9B832A25BB05E0944628D2472E249694?sequence=1]. Accessed 11 December 2020.
[2] Ministry of Defence. [http://milligosun.gov.tm]. Accessed 11 December 2020.
[3] World Health Organization (WHO). 10 April 2018. "Turkmenistan updates national pandemic influenza preparedness plan". [http://www.euro.who.int/en/health-topics/communicable-diseases/influenza/news/news/2018/4/turkmenistan-updates-national-pandemic-influenza-preparedness-plan]. Accessed 11 December 2020.
[4] World Health Organization (WHO). 23 May 2017. "Turkmenistan boosts emergency preparedness ahead of 5th Asian Indoor and Martial Arts Games". [http://www.euro.who.int/en/countries/turkmenistan/news/news/2017/05/turkmenistan-boosts-emergency-preparedness-ahead-of-5th-asian-indoor-and-martial-arts-games]. Accessed 11 December 2020.
[5] Ministry of Health and Medical Industry. Health Information Center of the Ministry of Health and Medical Industry. "Special Center for the Prevention of Dangerous Infectious Diseases (Специальный Центр профилактики опасных инфекционных заболеваний)". [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 11 December 2020.
[6] Ministry of Defence. [http://milligosun.gov.tm]. Accessed 11 December 2020.
[7] Word Health Organisation (WHO). "WHO Coronavirus Disease (COVID-19) Dashboard". [https://covid19.who.int/region/euro/country/tm]. Accessed 11 December 2020.
[8] Voice of America. 30 November 2020. "Turkmenistan Clamps Down on COVID-19 Criticism". [https://www.voanews.com/extremism-watch/turkmenistan-clamps-down-covid-19-criticism]. Accessed 11 December 2020.
[9] Turkmenportal. 2020. "Turkmenistan's epidemiological situation vis-à-vis the COVID 19 coronavirus remains under control." ("Эпидемиологическая ситуация в Туркменистане по коронавирусу COVID 19 остаётся под контролем.") [https://turkmenportal.com/blog/26422/epidemiologicheskaya-situaciya-v-turkmenistane-po-koronavirusu-covid-19-ostaetsya-pod-kontrolem]. Accessed 11 December 2020.
[10] Radio Free Europe/Radio Liberty. 2020. "While mention of COVID-19 is banned, in Turkmenistan inpatient treatment

facilities are being prepared." ("На фоне запрета на упоминание COVID-19 в Туркменистане подготавливают стационарные лечебные заведения.") [https://rus.azathabar.com/a/30527087.html]. Accessed 11 December 2020.
[11] Turkmenportal. 2020. "Turkmenistan's epidemiological situation vis-à-vis the COVID 19 coronavirus remains under control." ("Эпидемиологическая ситуация в Туркменистане по коронавирусу COVID 19 остаётся под контролем.") [https://turkmenportal.com/blog/26422/epidemiologicheskaya-situaciya-v-turkmenistane-po-koronavirusu-covid-19-ostaetsya-pod-kontrolem]. Accessed 11 December 2020.
[12] TurkmenPortal. 17 July 2020. Mosques in Turkmenistan Closed until the 31st of July for Disease Prevention (В Туркменистане до 31 июля мечети закрыты на профилактику)". [https://turkmenportal.com/blog/28882/v-turkmenistane-do-31-iyulya-mecheti-zakryty-na-profilaktiku]. Accessed 22 December 2020.
[13] TurkmenPortal. 13 July 2020. "The Movement of Passenger Trains in Turkmenistan to be Temporarily Suspended (Движение пассажирских поездов по Туркменистану будет временно приостановлено)". [https://turkmenportal.com/blog/28822/dvizhenie-passazhirskih-poezdov-po-turkmenistanu-budet-vremenno-priostanovleno]. Accessed 22 December 2020.
[14] Voice of America. 30 November 2020. "Turkmenistan Clamps Down on COVID-19 Criticism ". [https://www.voanews.com/extremism-watch/turkmenistan-clamps-down-covid-19-criticism]. Accessed 22 December 2020.
[15] Radio Free Europe/Radio Liberty. 16 June 2020. "COVID-19: 'Virus-Free' Turkmenistan Reportedly Locks Down Two Major Hospitals". [https://www.rferl.org/a/covid-regional-wrapup-june-16/30673830.html]. Accessed 22 December 2020.

3.2.1b

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

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

Current Year Score: 0

No public evidence was found that Turkmenistan has identified a list of gaps and best practices in response (either through an infectious disease response of a biological-threat focused exercise) or developed a plan to improve response capabilities within the last year. Turkmenistan has not completed an After Action Review within the last year, nor is one planned [1]. According to the World Health Organisation (WHO), Turkmenistan completed two simulation exercises considering cases of Middle East Respiratory Syndrome in 2016 and 2017, but reports on the exercises are not available from the WHO website, and it is unclear whether the exercises were used to identify gaps and best practices [2]. No further information on the previous simulation exercises, or any others conducted or planned, was found on the webpages of the World Health Organization, the Ministry of Health and Medical Industry, Ministry of Agriculture and Environmental Protection, or the Ministry of Defense [3, 4, 5, 6].

[1] World Health Organization (WHO). “After Action Review”. [https://extranet.who.int/sph/after-action-review]. Accessed 11 December 2020.
[2] World Health Organization (WHO). "Simulation Exercise". [https://extranet.who.int/sph/simulation-exercise?region=All&country=1291]. Accessed 8 March 2021.
[3] World Health Organization (WHO). “Turkmenistan”. [https://www.euro.who.int/en/countries/turkmenistan]. Accessed 11 December 2020.
[4] Ministry of Health and Medical Industry. Health Information Center of the Ministry of Health and Medical Industry. “Special Center for the Prevention of Dangerous Infectious Diseases (Специальный Центр профилактики опасных инфекционных заболеваний)". [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 11 December 2020.
[5] Ministry of Agriculture and Environmental Protection. [http://minagri.gov.tm]. Accessed 11 December 2020.

[6] Ministry of Defence. [http://milligosun.gov.tm]. Accessed 11 December 2020.

3.2.2 Private sector engagement in exercises

3.2.2a

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

Yes = 1 , No = 0

Current Year Score: 0

No public evidence was found that Turkmenistan has undergone a national-level biological threat-focused exercise that has included private sector representatives within the last year. Turkmenistan has not completed an After Action Review within the last year, nor is one planned [1]. According to the World Health Organisation (WHO), Turkmenistan completed two simulation exercises considering cases of Middle East Respiratory Syndrome in 2016 and 2017, but reports on the exercises are not available from the WHO website, and it is unclear whether the exercises were used to identify gaps and best practices [2]. No further information on the previous simulation exercises, or any others conducted or planned was found on the webpages of the World Health Organization, the Ministry of Health and Medical Industry, Ministry of Agriculture and Environmental Protection, or the Ministry of Defense [3, 4, 5, 6].

[1] World Health Organization (WHO). “After Action Review”. [https://extranet.who.int/sph/after-action-review]. Accessed 11 December 2020.
[2] World Health Organization (WHO). "Simulation Exercise". [https://extranet.who.int/sph/simulation-exercise?region=All&country=1291]. Accessed 8 March 2021.
[3] World Health Organization (WHO). “Turkmenistan”. [https://www.euro.who.int/en/countries/turkmenistan]. Accessed 11 December 2020.
[4] Ministry of Health and Medical Industry. Health Information Center of the Ministry of Health and Medical Industry. “Special Center for the Prevention of Dangerous Infectious Diseases (Специальный Центр профилактики опасных инфекционных заболеваний)". [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 11 December 2020.
[5] Ministry of Agriculture and Environmental Protection. [http://minagri.gov.tm]. Accessed 11 December 2020.
[6] Ministry of Defence. [http://milligosun.gov.tm]. Accessed 11 December 2020.

3.3 EMERGENCY RESPONSE OPERATION

3.3.1 Emergency response operation

3.3.1a

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

Yes = 1 , No = 0

Current Year Score: 1

Turkmenistan has an emergency operations center (EOC). According to the Joint External Evaluation for Turkmenistan, conducted in June 2016, Turkmenistan has a 24/7 EOC structure and function that operates based on procedures that determine when to activate public health emergency operations [1]. The JEE reports evidence of integration at all levels between all relevant stakeholders, stating that the country regularly conducts exercises to check the system, decision-making processes and operational performance. The webpage of the Ministry of Health and Medical Industry has no information

about the EOC [2]. The State Commission for Emergency Situations does not have a website [3].

[1] World Health Organization (WHO). June 2016. “Joint External Evaluation of IHR Core Capacities of Turkmenistan”. [https://apps.who.int/iris/bitstream/handle/10665/255632/WHO-WHE-CPI-2017.29-eng.pdf;jsessionid=9B832A25BB05E0944628D2472E249694?sequence=1]. Accessed 11 December 2020.
[2] Ministry of Health and Medical Industry. Health Information Center of the Ministry of Health and Medical Industry. “Special Center for the Prevention of Dangerous Infectious Diseases (Специальный Центр профилактики опасных инфекционных заболеваний)". [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 11 December 2020.
[3] Embassy of Turkmenistan, Republic of Turkey. Government websites of Turkmenistan. [https://turkey.tmembassy.gov.tm/en/websites]. Accessed 7 December 2020.

3.3.1b

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

Yes = 1 , No = 0

Current Year Score: 0

There is insufficient public evidence that Turkmenistan's emergency operations center (EOC) is required to conduct - or conducts - a drill at least once per year.

The WHO's Joint External Evaluation (JEE) for Turkmenistan, conducted in June 2016, reports that Turkmenistan regularly conducts exercises to test its system, decision-making processes and operational performance, but the report does not specify at what intervals. The 2016 JEE recommends Turkmenistan ensure that the EOC regularly conducts exercises (two or more times per year) to test its functionality [1].

The webpage for the Ministry of Health and Medical Industry does not have information about requirements to conduct EOC exercises [2]. The State Commission for Emergency Situations does not have a website [3]. No further information was found on the World Health Organization's Turkmenistan page [4].

[1] World Health Organization (WHO). June 2016. “Joint External Evaluation of IHR Core Capacities of Turkmenistan”. [https://apps.who.int/iris/bitstream/handle/10665/255632/WHO-WHE-CPI-2017.29-eng.pdf;jsessionid=9B832A25BB05E0944628D2472E249694?sequence=1]. Accessed 11 December 2020.
[2] Ministry of Health and Medical Industry. Health Information Center of the Ministry of Health and Medical Industry. “Special Center for the Prevention of Dangerous Infectious Diseases (Специальный Центр профилактики опасных инфекционных заболеваний)". [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 11 December 2020.
[3] Embassy of Turkmenistan, Republic of Turkey. Government websites of Turkmenistan. [https://turkey.tmembassy.gov.tm/en/websites]. Accessed 7 December 2020.
[4] World Health Organization (WHO). “Turkmenistan”. [https://www.euro.who.int/en/countries/turkmenistan]. Accessed 11 December 2020.

3.3.1c

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

Yes = 1 , No = 0

Current Year Score: 0

There is no public evidence that Turkmenistan's emergency operations center (EOC) has conducted a coordinated emergency response or emergency response exercise activated within 120 minutes of the public health emergency/scenario within the last year, but Turkmenistan's EOC is reportedly able to carry out a response within 120 minutes. The webpage of the Ministry of Health and Medical Industry has no information about conducting a coordinated emergency response or emergency response scenario within the last year. [1] However, according to the Joint External Evaluation for Turkmenistan, conducted in June 2016, the EOC's staff have the capacity to activate and coordinate national public health EOC functions and response within two hours as per the operational guidelines. [2] The 2016 JEE says Turkmenistan regularly conducts drills designed to test the EOC system and that case management for priority epidemic-prone diseases and other IHR-relevant hazards is available. [2] The State Commission for Emergency Situations does not have a website. [3] No further information was found on the World Health Organization's Turkmenistan page [4].

[1] Ministry of Health and Medical Industry. Health Information Center of the Ministry of Health and Medical Industry. “Special Center for the Prevention of Dangerous Infectious Diseases (Специальный Центр профилактики опасных инфекционных заболеваний)". [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 11 December 2020.
[2] World Health Organization (WHO). June 2016. “Joint External Evaluation of IHR Core Capacities of Turkmenistan”. [https://apps.who.int/iris/bitstream/handle/10665/255632/WHO-WHE-CPI-2017.29-eng.pdf;jsessionid=9B832A25BB05E0944628D2472E249694?sequence=1]. Accessed 11 December 2020.
[3] Embassy of Turkmenistan, Republic of Turkey. Government websites of Turkmenistan. [https://turkey.tmembassy.gov.tm/en/websites]. Accessed 7 December 2020.
[4] World Health Organization (WHO). “Turkmenistan”. [https://www.euro.who.int/en/countries/turkmenistan]. Accessed 11 December 2020.

3.4 LINKING PUBLIC HEALTH AND SECURITY AUTHORITIES

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

3.4.1a

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

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

Current Year Score: 0

There is no publicly available evidence that Turkmenistan's public health and national security authorities have carried out an exercise to respond to a potential deliberate biological event, such as a bioterrorism attack, or that public health and national security authorities have agreements on standard operating procedures for the two state bodies to respond to a potential deliberate biological event. There have been no reports from state media about such exercises, nor has there been mention of units trained to respond to a bioterrorism attack [1, 2, 3, 4]. The webpage of the Ministry of Health and Medical Industry has no information about exercises or plans to respond to a bioterrorism attack or a deliberate biological event [5]. Neither the Ministry of National Security nor the State Commission for Emergency Situations have a website [6]. No further

information was found on the World Health Organization's Turkmenistan page [7].

[1] Radio Free Europe/Radio Liberty. "Turkmen service." [https://rus.azathabar.com/]. Accessed 22 December 2020.
[2] Türkmenistan Bu Gün. [[http://tdh.gov.tm]. Accessed 22 December 2020.
[3] Turkmenportal. [https://turkmenportal.com/]. Accessed 22 December 2020.
[4] Khronika Turkmenistana. [https://www.hronikatm.com/]. Accessed 22 December 2020.
[5] Ministry of Health and Medical Industry. Health Information Center of the Ministry of Health and Medical Industry. "Special Center for the Prevention of Dangerous Infectious Diseases (Специальный Центр профилактики опасных инфекционных заболеваний)". [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 11 December 2020.
[6] Embassy of Turkmenistan, Republic of Turkey. Government websites of Turkmenistan. [https://turkey.tmembassy.gov.tm/en/websites]. Accessed 7 December 2020.
[7] World Health Organization (WHO). "Turkmenistan". [https://www.euro.who.int/en/countries/turkmenistan]. Accessed 11 December 2020.

3.5 RISK COMMUNICATIONS

3.5.1 Public communication

3.5.1b

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

Yes = 1 , No = 0

Current Year Score: 0

There is insufficient public evidence that Turkmenistan has a risk communication plan that outlines how messages will reach populations with different communications needs. A 2019 United Nations report notes that Turkmenistan has adopted an emergency risk communication plan, but it offers no details on the plan [1]. The 2016 Joint External Evaluation says the Health Ministry's Public Health Centre has a mass media department that can use television, radio and print material to reach the public [2]. The webpage for the Ministry of Health and Medical Industry confirms it has a press department and a small studio, but does not mention the role of either in disseminating information to the population during a national health emergency [3]. The State Commission for Emergency Situations does not have a website [4].

[1] World Health Organization (WHO). June 2016. "Joint External Evaluation of IHR Core Capacities of Turkmenistan". [https://apps.who.int/iris/bitstream/handle/10665/255632/WHO-WHE-CPI-2017.29-eng.pdf;jsessionid=9B832A25BB05E0944628D2472E249694?sequence=1]. Accessed 11 December 2020.
[2] World Health Organization (WHO). June 2016. "Joint External Evaluation of IHR Core Capacities of Turkmenistan". [https://apps.who.int/iris/bitstream/handle/10665/255632/WHO-WHE-CPI-2017.29-eng.pdf;jsessionid=9B832A25BB05E0944628D2472E249694?sequence=1]. Accessed 13 December 2020.
[3] Ministry of Health and Medical Industry. Health Information Center of the Ministry of Health and Medical Industry. "Special Center for the Prevention of Dangerous Infectious Diseases (Специальный Центр профилактики опасных инфекционных заболеваний)". [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 11 December 2020.
[4] Embassy of Turkmenistan, Republic of Turkey. Government websites of Turkmenistan. [https://turkey.tmembassy.gov.tm/en/websites]. Accessed 7 December 2020.

3.5.1 Risk communication planning

3.5.1a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence that Turkmenistan has a risk communication plan that is specifically intended for use during a public health emergency. According to the Joint External Evaluation (JEE) for Turkmenistan, conducted in June 2016, Turkmenistan does have multisectoral communication mechanisms, but there is still a need for a dedicated risk communication plan developed on the basis of World Health Organization guidance. [1] The JEE recommended requesting Good Emergency Management Practices Training (GEMP) from the Food and Agriculture Organization of the United Nations (FAO), but there is no evidence on the FAO website that Turkmenistan has followed through on that recommendation. [2] The JEE says that the Health Ministry's Public Health Center has a mass media department that can use television, radio and print material to reach the public [1]. The webpage for the Ministry of Health and Medical Industry confirms it has a press department and a small studio, but does not mention the role of either in disseminating information to the population during a national health emergency [3]. Furthermore, the webpage for the Ministry of Health and Medical Industry has no information about a risk communication plan specifically intended for use during a public health emergency. [3] The State Commission for Emergency Situations does not have a website. [4]

[1] World Health Organization (WHO). June 2016. “Joint External Evaluation of IHR Core Capacities of Turkmenistan”. [https://apps.who.int/iris/bitstream/handle/10665/255632/WHO-WHE-CPI-2017.29-eng.pdf;jsessionid=9B832A25BB05E0944628D2472E249694?sequence=1]. Accessed 11 December 2020.
[2] Food and Agriculture Organisation of the United Nations (FAO). 2019. “Good Emergency Management Practice: Helping Countries to Prepare for Animal Disease Emergency Response”. [http://www.fao.org/3/a-i7021e.pdf]. Accessed 11 December 2020.
[3] Ministry of Health and Medical Industry. Health Information Center of the Ministry of Health and Medical Industry. “Special Center for the Prevention of Dangerous Infectious Diseases (Специальный Центр профилактики опасных инфекционных заболеваний)". [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 11 December 2020.
[4] Embassy of Turkmenistan, Republic of Turkey. Government websites of Turkmenistan. [https://turkey.tmembassy.gov.tm/en/websites]. Accessed 7 December 2020.

3.5.1c

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly-available evidence that Turkmenistan has a comprehensive risk communication plan that designates a specific position within the government to serve as the primary spokesperson to the public during a public health emergency. A 2019 United Nations report notes that Turkmenistan has adopted an emergency risk communication plan, but it offers no details on the plan [1]. The webpage for the Ministry of Health and Medical Industry confirms it has a press department and a small studio, but does not mention a designated spokesperson during a national health emergency [2]. The State Commission

for Emergency Situations does not have a website [3]. No further information was found in the 2016 Joint External Evaluation conducted on Turkmenistan [4].

[1] United Nations. August 2019. “Final Report: Turkmenistan-United Nations Partnership Partnership Framework for Development 2016-2020”. [https://turkmenistan.un.org/sites/default/files/2020-04/Turkeminstan%20PfD%20Evaluation%20Report.pdf]. Accessed 13 December 2020.
[2] Ministry of Health and Medical Industry. Health Information Center of the Ministry of Health and Medical Industry. “Special Center for the Prevention of Dangerous Infectious Diseases (Специальный Центр профилактики опасных инфекционных заболеваний)". [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 11 December 2020.
[3] Embassy of Turkmenistan, Republic of Turkey. Government websites of Turkmenistan. [https://turkey.tmembassy.gov.tm/en/websites]. Accessed 7 December 2020.
[4] World Health Organization (WHO). June 2016. “Joint External Evaluation of IHR Core Capacities of Turkmenistan”. [https://apps.who.int/iris/bitstream/handle/10665/255632/WHO-WHE-CPI-2017.29-eng.pdf;jsessionid=9B832A25BB05E0944628D2472E249694?sequence=1]. Accessed 8 March 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: 0

There is no evidence that Turkmenistan's government has used online media platforms to inform the public about ongoing public health concerns, or to dispel rumors, misinformation or disinformation. According to numerous independent media reports, Turkmenistan's government denies that there have been any COVID-19 cases in the country, healthcare professionals have been prohibited from diagnosing COVID-19, and anyone who questions the government line faces repression [1, 2]. In early February, the Ministry of Healthcare and the Medical Industry produced informational brochures containing guidelines about hygiene and other practices that could prevent infection, which were distributed to clinics, hospitals, schools, factories and the offices of some state institutions. [3, 4] The early versions of these brochures specifically refered to "coronavirus", but by mid-March the versions being published only spoke in general terms about "severe respiratory viral infections". [4] By April, the Organization for Economic Co-operation and Development reports that the government was generally refraining from talking about the pandemic, and that there had been little guidance to citizens or firms on preventive measures, aside from some limited public health information. [5] Reporters Without Borders states that Turkmenistan's tightly controlled state media only provide the public with very limited information about the virus, prominently including unscientific recommendations to burn certain herbs. [6] Experts report that the state media is primarily concerned with convincing the population that there is no crisis, while also prescribing basic hygiene measures. [7] For a long time, the website of the Ministry of Health and Medical Industry contained no information about COVID-19 or any evidence that the website has been used to inform the public about other public health concerns [8]. However, the ministry has published a link to a news article on the testing of the Johnson & Johnson vaccine, the country's COVID-19 response plan, and a press release noting that Turkmenistan became the first Central Asian country to certify the Sputnik V vaccine. [9] The relevant government agencies are not active on Facebook or Twitter; an unofficial, automatically-created Facebook page for the Ministry of Health and Medical Industry is available, but contains only three posts unrelated to medical topics and dating

from 2016. [10] The State Commission for Emergency Situations does not have a website. [11]

[1] Voice of America. 30 November 2020. “Turkmenistan Clamps Down on COVID-19 Criticism”. [https://www.voanews.com/extremism-watch/turkmenistan-clamps-down-covid-19-criticism]. Accessed 13 December 2020.
[2] Radio Free Europe/Radio Liberty. 16 November 2020. “Turkmen Villagers Prefer 'Home Treatment' To Ill-Prepared Hospitals”. [https://www.rferl.org/a/turkmen-villagers-ill-prepared-hospitals-home-treatment-coronavirus/30952962.html]. Accessed 13 December 2020.
[3] Turkmen News. 2020. "Turkmenistan: Flights to Bangkok and Beijing canceled until April." ("Туркменистан: Авиарейсы в Бангкок и Пекин отменены до апреля.") [https://turkmen.news/news/koronavirus-turkmenistan/]. Accessed 22 December 2020.
[4] Khronika Turkmenistana. 2020. "Mention of coronavirus disappeared from booklets distributed by the Ministry of Health." ("Из буклетов, которые распространяет Минздрав исчезло упоминание коронавируса.") [https://www.hronikatm.com/2020/03/no-coronavirus-brochure/]. Accessed 22 December 2020.
[5] Organization for Economic Co-operation and Development. 2020. "COVID-19 crisis response in Central Asia." [http://www.oecd.org/coronavirus/policy-responses/covid-19-crisis-response-in-central-asia-5305f172/#section-d1e1524]. Accessed 22 December 2020.
[6] Reporters Without Borders. 2020. "Coronavirus off limits in Turkmenistan." [https://rsf.org/en/news/coronavirus-limits-turkmenistan]. Accessed 22 December 2020.
[7] The Diplomat. 2020. "Did Turkmenistan Really Ban the Word ‘Coronavirus’?". [https://thediplomat.com/2020/04/did-turkmenistan-really-ban-the-word-coronavirus/]. Accessed 22 December 2020.
[8] Ministry of Health and Medical Industry. Health Information Center of the Ministry of Health and Medical Industry. “Special Center for the Prevention of Dangerous Infectious Diseases (Специальный Центр профилактики опасных инфекционных заболеваний)". [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 13 December 2020.
[9] Ministry of Health and Medical Industry. "News (Новости)". [https://www.saglykhm.gov.tm/makala]. Accessed 9 March 2021.
[10] Facebook. “Ministry of Health of Turkmenistan”. [https://www.facebook.com/pages/Ministry-of-Health-Turkmenistan/191751977575395]. Accessed 13 December 2020.
[11] Embassy of Turkmenistan, Republic of Turkey. Government websites of Turkmenistan. [https://turkey.tmembassy.gov.tm/en/websites]. Accessed 7 December 2020.

3.5.2b

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

No = 1, Yes = 0

Current Year Score: 0

Turkmenistan's senior leaders have shared misinformation on infectious diseases within the last two years. Turkmenistan's president, Gurbanguly Berdimuhamedow, has repeatedly denied that there have bee any cases of COVID-19 in Turkmenistan [1]. According to independent media reports, medical professionals are forbidden from diagnosing COVID-19, and anyone who questions the government line faces repression [1, 2, 3] Berdimuhamedow has also recommended the burning of peganum harmala (a herb also known in English as wild rue, Syrian rue, or African rue) as a measure to "disinfect" and to prevent the spread of COVID-19 and other infectious diseases - a recommendation supported by no scientific evidence [4, 5, 6, 7, 8].

[1] Voice of America. 30 November 2020. “Turkmenistan Clamps Down on COVID-19 Criticism”. [https://www.voanews.com/extremism-watch/turkmenistan-clamps-down-covid-19-criticism]. Accessed 13 December 2020.

[2] Voice of America. 30 November 2020. “Turkmenistan Clamps Down on COVID-19 Criticism”. [https://www.voanews.com/extremism-watch/turkmenistan-clamps-down-covid-19-criticism]. Accessed 13 December 2020.
[3] Radio Free Europe/Radio Liberty. 16 November 2020. “Turkmen Villagers Prefer 'Home Treatment' To Ill-Prepared Hospitals”. [https://www.rferl.org/a/turkmen-villagers-ill-prepared-hospitals-home-treatment-coronavirus/30952962.html]. Accessed 13 December 2020.
[4] EurasiaNet. 17 March 2020. “Turkmenistan: Up in smoke”. [https://eurasianet.org/turkmenistan-up-in-smoke?utm_source=newsletter&utm_medium=email&utm_campaign=sendto_newslettertest&stream=top]. Accessed 13 December 2020.
[5] Radio Free Europe/Radio Liberty. 14 March 2020. "At the state development meeting, Berdimuhamedow recommended protecting oneself from disease with peganum harmala smoke." ("Бердымухамедов на заседании по государственному развитию посоветовал защищаться от болезней дымом от могильника.") [https://rus.azathabar.com/a/30487788.html]. Accessed 17 December 2020.
[6] Radio Free Europe/Radio Liberty. 8 May 2020. "What are they using against COVID-19 in Turkmenistan?" ("Чем пользуются в Туркменистане против COVID-19?") [https://rus.azathabar.com/a/30600913.html]. Accessed 17 December 2020.
[7] Abdujalil Abdurasulov. 7 April 2020. "Coronavirus: Why has Turkmenistan reported no cases?" BBC News. [https://www.bbc.com/news/world-asia-52186521]. Accessed 17 December 2020.
[8] United States Department of Agriculture. 13 October 2020. "Taxon: Peganum harmala L." [https://npgsweb.ars-grin.gov/gringlobal/taxonomydetail.aspx?id=27098]. Accessed 17 December 2020.

3.6 ACCESS TO COMMUNICATIONS INFRASTRUCTURE

3.6.1 Internet users

3.6.1a

Percentage of households with Internet

Input number

Current Year Score: 21.25

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: 162.86

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: 2.0

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: 5.0

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 Turkmenistan has issued a restriction, without international/bilateral support, on the export/import of medical goods due to an infectious disease outbreak. As of 9 November 2020, the European Bank for Recontruction and Development reports that Turkmenistan has not introduced any export restrictions in relation to COVID-19 [1]. There is no evidence of such restrictions on the website of the Ministry of Trade and Foreign Economic Relations, the general government website, or any major news websites focused on Turkmenistan [2, 3, 4, 5, 6, 7]. There is no mention of such measures in the summaries of Turkmenistan's policy responses to COVID-19 published by the Organization for Economic Co-operation and Development, the International Monetary Fund, or the World Bank [7, 8, 9, 10]. No further evidence was found on the websites of the Ministry of Health, the Ministry of Foreign Affairs, or the Ministry of Agriculture and Water Resources [11, 12, 13].

[1] European Bank for Reconstruction and Development. 9 November 2020. "Responding to the Coronavirus Crisis. Update on Turkmenistan." [https://www.ebrd.com/cs/Satellite?c=Content&cid=1395289943512&d=&pagename=EBRD%2FContent%2FDownloadDocument]. Accessed 13 December 2020.

[2] Ministry of Trade and Foreign Economic Relations of Turkmenistan. [https://mintradefer.gov.tm/index.php/]. Accessed 13 December 2020.
[3] Government of Turkmenistan. [http://www.turkmenistan.gov.tm]. Accessed 13 December 2020.
[4] Türkmenistan Bu Gün. [[http://tdh.gov.tm]. Accessed 13 December 2020.
[5] Turkmenportal. [https://turkmenportal.com/]. Accessed 13 December 2020.
[6] Khronika Turkmenistana. [https://www.hronikatm.com/]. Accessed 13 December 2020.
[7] Radio Free Europe/Radio Liberty. "Turkmen service." [https://rus.azathabar.com/]. Accessed 13 December 2020.
[8] Organization for Economic Co-operation and Development. 2020. "COVID-19 crisis response in Central Asia." [http://www.oecd.org/coronavirus/policy-responses/covid-19-crisis-response-in-central-asia-5305f172/#section-d1e1524]. Accessed 13 December 2020.
[9] International Monetary Fund. 2020. "Policy responses to COVID-19." [https://www.imf.org/en/Topics/imf-and-covid19/Policy-Responses-to-COVID-19]. Accessed 13 December 2020.
[10] World Bank. 2020. "Social Protection and Jobs Responses to COVID-19: A Real-Time Review of Country Measures." [https://www.ugogentilini.net/wp-content/uploads/2020/05/Country-SP-COVID-responses_May15.pdf]. Accessed 13 December 2020.
[11] Ministry of Health and Medical Industry. “Special Center for the Prevention of Dangerous Infectious Diseases (Специальный Центр профилактики опасных инфекционных заболеваний)”. [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 8 March 2021.
[12] Ministry of Foreign Affairs. [https://www.mfa.gov.tm/en] Accessed 8 March 2021.
[13] Ministry of Agriculture and Water Resources. 2019. [http://minagri.gov.tm]. Accessed 8 March 2021.

3.7.1b

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

Yes = 0 , No = 1

Current Year Score: 1

There is no evidence that Turkmenistan has introduced import or export restrictions on non-medical goods, without international or bilateral support, due to an infectious disease outbreak. As of 9 November 2020, the European Bank for Recontruction and Development reports that Turkmenistan has not introduced any export restrictions in response to COVID-19. [1] There is no evidence of export restrictions on the website of the Ministry of Trade and Foreign Economic Relations, the website of the Ministry of Agriculture and Environmental Protection, the general government website, or any major news websites focused on Turkmenistan. [2, 3, 4, 5, 6, 7, 8] There is no mention of such a policy in the summaries of Turkmenistan's COVID-19 policy responses published by the Organization for Economic Co-operation and Development, the International Monetary Fund, or the World Bank. [9, 10, 11] No evidence that Turkmenistan has introduced import or export restrictions due to an infectious disease outbreak was found on the websites of the Ministry of Health and Medical Industry. [12]

[1] European Bank for Reconstruction and Development. 9 November 2020. "Responding to the Coronavirus Crisis. Update on Turkmenistan." [https://www.ebrd.com/cs/Satellite?c=Content&cid=1395289943512&d=&pagename=EBRD%2FContent%2FDownloadDocument]. Accessed 13 December 2020.
[2] Ministry of Trade and Foreign Economic Relations of Turkmenistan. [https://mintradefer.gov.tm/index.php/]. Accessed 13 December 2020.
[3] Ministry of Agriculture and Environmental Protection of Turkmenistan. [http://www.minagri.gov.tm/]. Accessed 13 December 2020.

[4] Government of Turkmenistan. [http://www.turkmenistan.gov.tm]. Accessed 13 December 2020.
[5] TÃ¼rkmenistan Bu GÃ¼n. [[http://tdh.gov.tm]. Accessed 13 December 2020.
[6] Turkmenportal. [https://turkmenportal.com/]. Accessed 13 December 2020.
[7] Khronika Turkmenistana. [https://www.hronikatm.com/]. Accessed 13 December 2020.
[8] Radio Free Europe/Radio Liberty. "Turkmen service." [https://rus.azathabar.com/]. Accessed 13 December 2020.
[9] Organization for Economic Co-operation and Development. 2020. "COVID-19 crisis response in Central Asia." [http://www.oecd.org/coronavirus/policy-responses/covid-19-crisis-response-in-central-asia-5305f172/#section-d1e1524]. Accessed 13 December 2020.
[10] International Monetary Fund. 2020. "Policy responses to COVID-19." [https://www.imf.org/en/Topics/imf-and-covid19/Policy-Responses-to-COVID-19]. Accessed 13 December 2020.
[11] World Bank. 2020. "Social Protection and Jobs Responses to COVID-19: A Real-Time Review of Country Measures." [https://www.ugogentilini.net/wp-content/uploads/2020/05/Country-SP-COVID-responses_May15.pdf]. Accessed 13 December 2020.
[12] Ministry of Health and Medical Industry. [http://www.saglykhm.gov.tm]. Accessed 8 March 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

Turkmenistan has introduced a ban without international/bilateral support on travelers arriving from specific countries due to an infectious disease outbreak. On 23 February Turkmenistan introduced a temporary ban on citizens of France and certain other countries entering the country. [1] On 20 March Turkmenistan banned all foreign citizens from entering the country. [8] This ban was initially intended to last only until 20 April, but there is no evidence that it has been lifted. [2, 3]

[1] Khronika Turkmenistana. 2020. "All flights arriving in Turkmenistan are redirected to TÃ¼rkmenabat for coronavirus testing." ("Ð'Ñ€Ðµ Ð¿Ñ€Ð±Ñ‹Ð²Ð°ÑŽÑ‰Ð¸Ðµ Ð² Ð¢ÑƒÑ€ÐºÐ¼ÐµÐ½Ð¸Ñ,Ð°Ð½ Ñ€ÐµÐ¹Ñ‹ Ð¿ÐµÑ€ÐµÐ½Ð°Ð¿Ñ€Ð°Ð²Ð»Ñ€Ñ‚Ñ,Ñ€Ñ Ð² Ð¢ÑƒÑ€ÐºÐ¼ÐµÐ½Ð°Ð±Ð°Ñ‚ Ð´Ð»Ñ Ñ€Ð´Ð°Ñ‡Ð¸ Ñ,ÐµÑ€Ñ,Ð° Ð½Ð°ÐºÐ¾Ð²Ð¸Ñ€ÑƒÑ.") [https://www.hronikatm.com/2020/03/stop-virus/]. Accessed 13 December 2020.
[2] Radio Free Europe/Radio Liberty. 2020. "In Turkmenistan people are arrested for talking about coronavirus, citizens abroad cannot return home." ("Ð' Ð¢ÑƒÑ€ÐºÐ¼ÐµÐ½Ð¸Ñ€Ñ,Ð°Ð½Ðµ Ð·Ð°Ð´ÐµÑ€Ð¶Ð¸Ð²Ð°ÑŽÑ‚, Ð·Ð° Ñ€Ð·Ð³Ð¾Ð²Ð¾Ñ€Ñ‹ Ð¾ ÐºÐ¾Ñ€Ð¾Ð½Ð°Ð²Ð¸Ñ€ÑƒÑ, Ð³Ñ€Ð°Ð¶Ð´Ð°Ð½Ðµ Ð·Ð° Ð¿Ñ€ÐµÐ´ÐµÐ»Ð°Ð¼Ð¸ Ñ€Ñ,Ñ€Ð°Ð½Ñ‹ Ð½Ðµ Ð¼Ð¾Ð³ÑƒÑ‚ Ð²ÐµÑ€Ð½ÑƒÑ‚ÑŒÑ Ð´Ð¾Ð¼Ð¾Ð¹.") [https://rus.azathabar.com/a/30510309.html]. Accessed 13 December 2020.
[3] Travel Bans. "Turkmenistan". [https://travelbans.org/asia/turkmenistan/]. Accessed 22 December 2020.

Category 4: Sufficient and robust health sector to treat the sick and protect health workers

4.1 HEALTH CAPACITY IN CLINICS, HOSPITALS, AND COMMUNITY CARE CENTERS

4.1.1 Available human resources for the broader healthcare system

4.1.1a

Doctors per 100,000 people

Input number

Current Year Score: 222.47

2014

WHO; national sources

4.1.1b

Nurses and midwives per 100,000 people

Input number

Current Year Score: 442.73

2014

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 public evidence that Turkmenistan has a public workforce strategy to identify fields where there is an insufficient workforce and strategies to address such shortcomings. A 2019 United Nations report mentions that an Action Plan for the Development of Social Services and Social Services Workforce 2018-2028 was being developed, but there is no further evidence that it was adopted or that the plan itself exists [1]. In January 2020, state news website TurkmenPortal reported that Turkmenistan had previously passed a five-year plan to develop the healthcare workforce by 2020, which had been developed in conjuction with the World Health Organization. [2] TurkmenPortal did not, however, disclose the name of the plan, or indicate that it is publicly available [2]. There is no further public evidence that Turkmenistan has any relevant strategies, including on the websites of the Ministry of Health and Medical Industry, the Ministry of Labour and Social Protection, and the Foreign Ministry's healthcare section [3, 4, 5].

[1] United Nations. August 2019. “Final Report: Turkmenistan-United Nations Partnership Partnership Framework for Development 2016-2020”. [https://turkmenistan.un.org/sites/default/files/2020-04/Turkeminstan%20PfD%20Evaluation%20Report.pdf]. Accessed 13 December 2020.
[2] TurkmenPortal. 4 January 2020. “Turkmenistan Approved a New Plan for the Development of Human Resources in Healthcare (Туркменистан утвердил новый план действий по развитию кадровых ресурсов для здравоохранения)”. [https://turkmenportal.com/blog/24124/turkmenistan-utverdil-novyi-plan-deistvii-po-razvitiyu-kadrovyh-resursov-dlya-zdravoohraneniya. Accessed 22 December 2020.
[3] Ministry of Health and Medical Industry. “Special Center for the Prevention of Dangerous Infectious Diseases (Специальный Центр профилактики опасных инфекционных заболеваний)”. [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 13 December 2020.
[4] Ministry of Labour and Social Protection. [http://mlsp.gov.tm/ru]. Accessed 13 December 2020.
[5] Ministry of Foreign Affairs. “Healthcare”. [https://www.mfa.gov.tm/en/articles/7] Accessed 13 December 2020.

4.1.2 Facilities capacity

4.1.2a

Hospital beds per 100,000 people

Input number

Current Year Score: 403

2014

WHO/World Bank; national sources

4.1.2b

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

Yes = 1 , No = 0

Current Year Score: 0

There is insufficient publicly available evidence that Turkmenistan has the capacity to isolate patients with highly communicable diseases in a biocontainment patient care unit, or that there is a patient isolation facility located within the country. According to the Joint External Evaluation for Turkmenistan, conducted in June 2016, Ashgabat airport has a plan for isolation and admission to the infectious diseases hospital for further medical care and monitoring of any arriving passenger exhibiting high fever [1]. The webpage of the Ministry of Health and Medical Industry has no information on isolation of patients, though it does mention its bacteriological laboratory vehicle, which can identify and implement measures against especially dangerous diseases and establish a quarantine in affected areas. The ministry's information about the Preventative Center for Particularly Dangerous Diseases in Ashgabat indicates that there is an ability to quarantine disease producers and conduct analyses [2]. The ministry webpage has information about the Lebap Regional Infectious Diseases Hospital, but there is no mention of a biocontainment unit or patient isolation facility. A January 2017 article from the State News Agency of Turkmenistan mentioned there was a three-story building with 160 beds for communicable disease (patients) in the Lebap hospital complex, but it did not mention containment or isolation facilities [3].

[1] World Health Organization (WHO). June 2016. “Joint External Evaluation of IHR Core Capacities of Turkmenistan”. [https://apps.who.int/iris/bitstream/handle/10665/255632/WHO-WHE-CPI-2017.29-

eng.pdf;jsessionid=9B832A25BB05E0944628D2472E249694?sequence=1]. Accessed 13 December 2020.
[2] Ministry of Health and Medical Industry. "Special Center for the Prevention of Dangerous Infectious Diseases (Специальный Центр профилактики опасных инфекционных заболеваний)". [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 13 December 2020.
[3] The State News Agency of Turkmenistan. 23 January 2017. "Turkmen President got familiarized with the situation on the largest construction sites in Lebap welayat". [http://tdh.gov.tm/news/en/articles.aspx&article4422&cat26]. Accessed 13 December 2020.

4.1.2c

Does the country meet one of the following criteria?
- Is there evidence that the country has demonstrated capacity to expand isolation capacity in response to an infectious disease outbreak in the past two years?
- Is there evidence that the country has developed, updated or tested a plan to expand isolation capacity in response to an infectious disease outbreak in the past two years?
Yes = 1, No = 0

Current Year Score: 0

There is no publicly available evidence that Turkmenistan has demonstrated capacity to expand isolation capacity in response to an infectious disease outbreak, or has developed, updated or tested a plan to expand isolation capacity in response to an infectious disease outbreak in the past two years. No such evidence was found in the Joint External Evaluation (JEE) for Turkmenistan, conducted in June 2016 [1]. No such evidence was found on the websites of the Ministry of Health and Medical Industry and the Ministry of Agriculture and Water Resources [2, 3]. The Ministry for National Security and the State Commission for Emergency Situations do not have websites [4]. No further information was found in local media sources [5, 6, 7, 8].

[1] World Health Organization (WHO). June 2016. "Joint External Evaluation of IHR Core Capacities of Turkmenistan". [https://apps.who.int/iris/bitstream/handle/10665/255632/WHO-WHE-CPI-2017.29-eng.pdf;jsessionid=9B832A25BB05E0944628D2472E249694?sequence=1]. Accessed 13 December 2020.
[2] Ministry of Health and Medical Industry. "Special Center for the Prevention of Dangerous Infectious Diseases (Специальный Центр профилактики опасных инфекционных заболеваний)". [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 13 December 2020.
[3] Ministry of Agriculture and Water Resources. 2019. [http://minagri.gov.tm]. Accessed 13 December 2020.
[4] Embassy of Turkmenistan, Republic of Turkey. "Government websites of Turkmenistan". [https://turkey.tmembassy.gov.tm/en/websites]. Accessed 13 December 2020.
[5] Türkmenistan Bu Gün. [http://tdh.gov.tm]. Accessed 8 March 2021.
[6] Turkmenportal. [https://turkmenportal.com/]. Accessed 8 March 2021.
[7] Khronika Turkmenistana. [https://www.hronikatm.com/]. Accessed 8 March 2021.
[8] Radio Free Europe/Radio Liberty. "Turkmen service." [https://rus.azathabar.com/]. Accessed 8 March 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

Turkmenistan has a national procurement protocol that can be utilized by the Ministries of Health and Agriculture for the routine acquisition of laboratory needs but not for medical supplies.

According to the WHO's Joint External Evaluation for Turkmenistan, conducted in June 2016, a "system of reagent and laboratory material procurement exists in almost all public sector institutions", but it does not specifically mention medical supply needs [1]. The webpages of Turkmenistan's Ministry of Health and Medical Industry and the Ministry of Agriculture and Water Resources do not have information about a national procurement protocol [2, 3].

[1] World Health Organization (WHO). June 2016. "Joint External Evaluation of IHR Core Capacities of Turkmenistan". [https://apps.who.int/iris/bitstream/handle/10665/255632/WHO-WHE-CPI-2017.29-eng.pdf;jsessionid=9B832A25BB05E0944628D2472E249694?sequence=1]. Accessed 13 December 2020.
[2] Ministry of Health and Medical Industry. "Special Center for the Prevention of Dangerous Infectious Diseases (Специальный Центр профилактики опасных инфекционных заболеваний)". [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 13 December 2020.
[3] Ministry of Agriculture and Water Resources. [http://minagri.gov.tm]. Accessed 13 December 2020.

4.2.2 Stockpiling for emergencies

4.2.2a

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

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

Current Year Score: 1

Turkmenistan maintains a stockpile of medical supplies (e.g. MCMs, medicines, vaccines, medical equipment, PPE) for national use during a public health emergency, but there is limited evidence about what the stockpile contains.

According to the Joint External Evaluation (JEE) for Turkmenistan, conducted in June 2016, Turkmenistan maintains stockpiles of medical countermeasures for use during a public health emergency, and also has a plan for management and distribution of the national stockpiles. The JEE also notes Turkmenistan has a plan for distributing animal health countermeasures. However, the JEE does not provide any details on the specific types of medical supplies in the stockpile. [1]

The webpages for the Ministry of Health and Medical Industry and the Ministry of Agriculture and Water Resources have no

information about MCM stockpiles [2, 3]. The Ministry for National Security and the State Commission for Emergency Situations do not have websites [4]. No further information on stockpiles of medical countermeasures was found in local media sources [5, 6, 7, 8].

[1] World Health Organization (WHO). June 2016. "Joint External Evaluation of IHR Core Capacities of Turkmenistan". [https://apps.who.int/iris/bitstream/handle/10665/255632/WHO-WHE-CPI-2017.29-eng.pdf;jsessionid=9B832A25BB05E0944628D2472E249694?sequence=1]. Accessed 13 December 2020.
[2] Ministry of Health and Medical Industry. "Special Center for the Prevention of Dangerous Infectious Diseases (Специальный Центр профилактики опасных инфекционных заболеваний)". [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 13 December 2020.
[3] Ministry of Agriculture and Water Resources. 2019. [http://minagri.gov.tm]. Accessed 13 December 2020.
[4] Embassy of Turkmenistan, Republic of Turkey. "Government websites of Turkmenistan". [https://turkey.tmembassy.gov.tm/en/websites]. Accessed 13 December 2020.
[5] Türkmenistan Bu Gün. [http://tdh.gov.tm]. Accessed 8 March 2021.
[6] Turkmenportal. [https://turkmenportal.com/]. Accessed 8 March 2021.
[7] Khronika Turkmenistana. [https://www.hronikatm.com/]. Accessed 8 March 2021.
[8] Radio Free Europe/Radio Liberty. "Turkmen service." [https://rus.azathabar.com/]. Accessed 8 March 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 public evidence that Turkmenistan maintains a stockpile of laboratory supplies for use in a national public health emergency. No evidence was found in the 2016 Joint External Evaluation (JEE) for Turkmenistan [1]. The webpages for the Ministry of Health and Medical Industry and the Ministry of Agriculture and Water Resources have no information about laboratory supply stockpiles [2, 3]. The Ministry for National Security and the State Commission for Emergency Situations do not have websites [4].

[1] World Health Organization (WHO). June 2016. "Joint External Evaluation of IHR Core Capacities of Turkmenistan". [https://apps.who.int/iris/bitstream/handle/10665/255632/WHO-WHE-CPI-2017.29-eng.pdf;jsessionid=9B832A25BB05E0944628D2472E249694?sequence=1]. Accessed 13 December 2020.
[2] Ministry of Health and Medical Industry. "Special Center for the Prevention of Dangerous Infectious Diseases (Специальный Центр профилактики опасных инфекционных заболеваний)". [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 13 December 2020.
[3] Ministry of Agriculture and Water Resources. 2019. [http://minagri.gov.tm]. Accessed 13 December 2020.
[4] Embassy of Turkmenistan, Republic of Turkey. "Government websites of Turkmenistan". [https://turkey.tmembassy.gov.tm/en/websites]. Accessed 13 December 2020.

4.2.2c

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

Yes = 1, No = 0

Current Year Score: 0

There is no publicly available evidence that Turkmenistan conducts or requires an annual review of the national stockpile to ensure the supply is sufficient for a public health emergency.

No evidence was found in the WHO's Joint External Evaluation (JEE) for Turkmenistan, conducted in June 2016 [1]. The webpages for the Ministry of Health and Medical Industry and the Ministry of Agriculture and Water Resources have no information about medical stockpiles [2, 3]. The Ministry for National Security and the State Commission for Emergency Situations do not have websites [4]. No further information on stockpiles of medical countermeasures was found in local media sources [5, 6, 7, 8].

[1] World Health Organization (WHO). June 2016. "Joint External Evaluation of IHR Core Capacities of Turkmenistan". [https://apps.who.int/iris/bitstream/handle/10665/255632/WHO-WHE-CPI-2017.29-eng.pdf;jsessionid=9B832A25BB05E0944628D2472E249694?sequence=1]. Accessed 13 December 2020.
[2] Ministry of Health and Medical Industry. "Special Center for the Prevention of Dangerous Infectious Diseases (Специальный Центр профилактики опасных инфекционных заболеваний)". [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 13 December 2020.
[3] Ministry of Agriculture and Water Resources. 2019. [http://minagri.gov.tm]. Accessed 13 December 2020.
[4] Embassy of Turkmenistan, Republic of Turkey. "Government websites of Turkmenistan". [https://turkey.tmembassy.gov.tm/en/websites]. Accessed 13 December 2020.
[5] Türkmenistan Bu Gün. [http://tdh.gov.tm]. Accessed 8 March 2021.
[6] Turkmenportal. [https://turkmenportal.com/]. Accessed 8 March 2021.
[7] Khronika Turkmenistana. [https://www.hronikatm.com/]. Accessed 8 March 2021.
[8] Radio Free Europe/Radio Liberty. "Turkmen service." [https://rus.azathabar.com/]. Accessed 8 March 2021.

4.2.3 Manufacturing and procurement for emergencies

4.2.3a

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

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

Current Year Score: 1

Turkmenistan has a plan in place to procure medical supplies (e.g. MCMs, medicines, vaccines, medical equipment, PPE) during a public health emergency, but there is no evidence of a plan or mechanism to leverage domestic manufacturing capacity to produce them.

According to the WHO's Joint External Evaluation (JEE) for Turkmenistan, conducted in June 2016, Turkmenistan has a plan in place that identifies procedures and decision-making related to sending and receiving medical countermeasures during a public health emergency, agreements with manufacturers and distributors on the procurement of MCMs during a public health emergency, and also a plan for management and distribution of national stockpiles. The JEE also notes that Turkmenistan has a plan for procuring and distributing animal health countermeasures. However, the JEE does not provide any details on the types of MCMs or medical supplies in general covered by the procedures and procurement agreements, or

contained in the stockpiles. The JEE also contains no evidence of a plan for leveraging domestic manufacturing of MCMs during a public health emergency [1].

The webpages for the Ministry of Health and Medical Industry and the Ministry of Agriculture and Water Resources give no information about the procedures for sending, receiving and procuring MCM during a public health emergency, or any information about MCM stockpiles [2, 3]. The Ministry for National Security and the State Commission for Emergency Situations do not have websites [4].

[1] World Health Organization (WHO). June 2016. "Joint External Evaluation of IHR Core Capacities of Turkmenistan". [https://apps.who.int/iris/bitstream/handle/10665/255632/WHO-WHE-CPI-2017.29-eng.pdf;jsessionid=9B832A25BB05E0944628D2472E249694?sequence=1]. Accessed 13 December 2020.
[2] Ministry of Health and Medical Industry. "Special Center for the Prevention of Dangerous Infectious Diseases (Специальный Центр профилактики опасных инфекционных заболеваний)". [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 13 December 2020.
[3] Ministry of Agriculture and Water Resources. 2019. [http://minagri.gov.tm]. Accessed 13 December 2020.
[4] Embassy of Turkmenistan, Republic of Turkey. "Government websites of Turkmenistan". [https://turkey.tmembassy.gov.tm/en/websites]. Accessed 13 December 2020.

4.2.3b

Does the country meet one of the following criteria?
- Is there evidence of a plan/agreement to leverage domestic manufacturing capacity to produce laboratory supplies (e.g. reagents, media) for national use during a public health emergency?
- Is there evidence of a plan/mechanism to procure laboratory supplies (e.g. reagents, media) for national use during a public health emergency?
Needs to meet at least one of the criteria to be scored a 1 on this measure., Yes for both = 1, Yes for one = 1, No for both = 0

Current Year Score: 0

There is no public evidence that Turkmenistan has a plan to leverage domestic manufacturing or a mechanism to procure laboratory supplies for use during a national public health emergency. According to the Joint External Evaluation for Turkmenistan, conducted in June 2016, Turkmenistan has a plan for management and distribution of national stockpiles, but it does not mention laboratory supplies, nor a specific plan for leveraging domestic manufacturing, or a mechanism to procure laboratory supplies for use during a national public health emergency. [1]. The webpages for the Ministry of Health and Medical Industry and the Ministry of Agriculture and Water Resources have no information about laboratory supply stockpiles [2, 3]. The Ministry for National Security does not have a web page [4]. The State Commission for Emergency Situations does not have a website [4].

[1] World Health Organization (WHO). June 2016. "Joint External Evaluation of IHR Core Capacities of Turkmenistan". [https://apps.who.int/iris/bitstream/handle/10665/255632/WHO-WHE-CPI-2017.29-eng.pdf;jsessionid=9B832A25BB05E0944628D2472E249694?sequence=1]. Accessed 13 December 2020.
[2] Ministry of Health and Medical Industry. "Special Center for the Prevention of Dangerous Infectious Diseases (Специальный Центр профилактики опасных инфекционных заболеваний)". [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 13 December 2020.
[3] Ministry of Agriculture and Water Resources. 2019. [http://minagri.gov.tm]. Accessed 13 December 2020.
[4] Embassy of Turkmenistan, Republic of Turkey. "Government websites of Turkmenistan". [https://turkey.tmembassy.gov.tm/en/websites]. Accessed 13 December 2020.

4.3 MEDICAL COUNTERMEASURES AND PERSONNEL DEPLOYMENT

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

4.3.1a

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

Yes = 1 , No = 0

Current Year Score: 0

There is insufficient public evidence that Turkmenistan has a plan for dispensing medical countermeasures during public health emergencies. According to the Joint External Evaluation (JEE) for Turkmenistan, conducted in June 2016, Turkmenistan has a plan in place for sending and receiving medical countermeasures and agreements with manufacturers and distributors to procure medical countermeasures during a public health emergency [1]. However, the JEE does not mention how these countermeasures would be dispensed. The webpages for the Ministry of Health and Medical Industry and the Ministry of Defense have no information on a plan or program for dispensing medical countermeasures for national use during a public health emergency [2, 3]. The Ministry for National Security and the State Commission for Emergency Situations do not have websites [4].

[1] World Health Organization (WHO). June 2016. “Joint External Evaluation of IHR Core Capacities of Turkmenistan”. [https://apps.who.int/iris/bitstream/handle/10665/255632/WHO-WHE-CPI-2017.29-eng.pdf;jsessionid=9B832A25BB05E0944628D2472E249694?sequence=1]. Accessed 13 December 2020.
[2] Ministry of Health and Medical Industry. “Special Center for the Prevention of Dangerous Infectious Diseases (Специальный Центр профилактики опасных инфекционных заболеваний)”. [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 13 December 2020.
[3] Ministry of Defence. [http://milligosun.gov.tm]. Accessed 13 December 2020.
[4] Embassy of Turkmenistan, Republic of Turkey. “Government websites of Turkmenistan”. [https://turkey.tmembassy.gov.tm/en/websites]. Accessed 13 December 2020.

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

4.3.2a

Is there a public plan in place to receive health personnel from other countries to respond to a public health emergency?

Yes = 1 , No = 0

Current Year Score: 0

There is insufficient public evidence that Turkmenistan has a plan in place to receive health personnel from other countries in the event of public health emergencies. The 2016 Joint External Evaluation noted that Turkmenistan has a plan for sending health personnel during a public emergency, and has deployed teams during the ebola outbreak, the Nepal earthquake, and to provide support to Afghanistan, but there is no plan for receiving foreign health personnel. The report recommended Turkmenistan develop and plan and standards for receiving health personnel in an emergency [1]. However, Turkmenistan received a team of specialists from the World Health Organization, at Turkmenistan's request, to aid the country's efforts in combatting COVID-19 [2]. The webpages for the Ministry of Health and Medical Industry and the Ministry of Defence have no information about agreements to receive health personnel other countries in the event of public health emergencies [3, 4].

There is no webpage for the Ministry of National Security or the State Commission for Emergency Situations [4, 5].

[1] World Health Organization (WHO). June 2016. "Joint External Evaluation of IHR Core Capacities of Turkmenistan". [https://apps.who.int/iris/bitstream/handle/10665/255632/WHO-WHE-CPI-2017.29-eng.pdf;jsessionid=9B832A25BB05E0944628D2472E249694?sequence=1]. Accessed 13 December 2020.
[2] World Health Organization (WHO). 7 July 2020. "WHO/Europe expert team reaches Turkmenistan to support the country's COVID-19 response". [https://www.euro.who.int/en/countries/turkmenistan/news/news/2020/7/whoeurope-expert-team-reaches-turkmenistan-to-support-the-countrys-covid-19-response]. Accessed 13 December 2020.
[3] Ministry of Health and Medical Industry. "Special Center for the Prevention of Dangerous Infectious Diseases (Специальный Центр профилактики опасных инфекционных заболеваний)". [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 13 December 2020.
[4] Ministry of Defence. [http://milligosun.gov.tm]. Accessed 13 December 2020.
[5] Embassy of Turkmenistan, Republic of Turkey. "Government websites of Turkmenistan". [https://turkey.tmembassy.gov.tm/en/websites]. Accessed 13 December 2020.

4.4 HEALTHCARE ACCESS

4.4.1 Access to healthcare

4.4.1a

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

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

Current Year Score: 4

2020

World Policy Analysis Center

4.4.1b

Access to skilled birth attendants (% of population)

Input number

Current Year Score: 100

2016

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: 909.2

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 public evidence that Turkmenistan's government has issued a policy or public statement committing to provide prioritized healthcare services to health workers who become sick as a result of responding to a public health emergency. The websites of the Ministry of Defense and the Ministry of Health have no information about prioritized healthcare services to workers who fall ill when responding to a public health emergency. [1, 2] During the COVID-19 crisis, independent media report that healthcare workers have been routinely tested, but they have not been given the results of their own tests, and are not allowed to speak about the virus [3].

[1] Ministry of Health and Medical Industry. "Special Center for the Prevention of Dangerous Infectious Diseases (Специальный Центр профилактики опасных инфекционных заболеваний)". [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 13 December 2020.
[2] Ministry of Defence. "Laws (Законы)". [http://milligosun.gov.tm/sahypa/harby-hukuk]. Accessed 13 December 2020.
[3] Radio Free Europe/Radio Liberty. 23 June 2020. "Coronavirus 'Out Of Control' In Turkmenistan, Medics Claim". [https://www.rferl.org/a/coronavirus-out-of-control-in-turkmenistan-medics-claim/30686406.html]. Accessed 13 December 2020.

4.5 COMMUNICATIONS WITH HEALTHCARE WORKERS DURING A PUBLIC HEALTH EMERGENCY

4.5.1 Communication with healthcare workers

4.5.1a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence that Turkmenistan has a system in place for public health officials and healthcare workers to communicate during a public health emergency.

According to the Joint External Evaluation (JEE) for Turkmenistan, conducted in June 2016, Turkmenistan has the structural basis necessary for effective risk communication, but it still lacks a dedicated risk communication plan developed on the basis of World Health Organization guidance. The JEE also reports that Turkmenistan has no designated unit responsible exclusively for risk communication, that a communication system has not been tested as part of an exercise or during a genuine emergency, and that there are no funds from the budget allocated exclusively for risk communication. [1]

The webpages for the Ministry of Health and Medical Industry and the Ministry of Defense have no information about risk communication for public health officials and healthcare workers during a public health emergency [2, 3]. Turkmenistan has a State Commission for Emergency Situations but the commission does not have a website [4]. No evidence of a system in place for communication between public health officials and healthcare workers was found in the Law on Civil Defense [5].

[1] World Health Organization (WHO). June 2016. “Joint External Evaluation of IHR Core Capacities of Turkmenistan”. [https://apps.who.int/iris/bitstream/handle/10665/255632/WHO-WHE-CPI-2017.29-eng.pdf;jsessionid=9B832A25BB05E0944628D2472E249694?sequence=1]. Accessed 13 December 2020.
[2] Ministry of Health and Medical Industry. Health Information Center of the Ministry of Health and Medical Industry. “Special Center for the Prevention of Dangerous Infectious Diseases (Специальный Центр профилактики опасных инфекционных заболеваний)". [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 13 December 2020.
[3] Ministry of Defence. [http://milligosun.gov.tm]. Accessed 13 December 2020.
[4] Embassy of Turkmenistan, Republic of Turkey. “Government websites of Turkmenistan”. [https://turkey.tmembassy.gov.tm/en/websites]. Accessed 13 December 2020.
[5] Ministry of Defence. 2008. "Law on Civil Defense (Закон о Гражданской Обороне)". [https://milligosun.gov.tm/storage/file/10-o-grazhdanskoy-oborone-Cc7fJ1vwcf.pdf]. Accessed 8 March 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 evidence that Turkmenistan has a system in place for public health officials and healthcare workers to communicate during a public health emergency that encompasses healthcare workers in both the public and private sector.

According to the Joint External Evaluation for Turkmenistan, conducted in June 2016, Turkmenistan has the structural basis necessary for effective risk communication, but lacks a dedicated risk communication plan developed on the basis of World Health Organization guidance [1].

The webpage for the Ministry of Health and Medical Industry has no information on a system for public health officials and healthcare workers to communicate during a public health emergency with healthcare workers in both the public and private sector [2]. Turkmenistan has a State Commission for Emergency Situations, but the commission does not have a website [3]. No evidence of a system in place for communication between public health officials and healthcare workers was found in the Law on Civil Defense [5].

[1] World Health Organization (WHO). June 2016. “Joint External Evaluation of IHR Core Capacities of Turkmenistan”. [https://apps.who.int/iris/bitstream/handle/10665/255632/WHO-WHE-CPI-2017.29-eng.pdf;jsessionid=9B832A25BB05E0944628D2472E249694?sequence=1]. Accessed 13 December 2020.
[2] Ministry of Health and Medical Industry. Health Information Center of the Ministry of Health and Medical Industry. “Special Center for the Prevention of Dangerous Infectious Diseases (Специальный Центр профилактики опасных инфекционных заболеваний)". [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 13 December 2020.
[3] Embassy of Turkmenistan, Republic of Turkey. “Government websites of Turkmenistan”. [https://turkey.tmembassy.gov.tm/en/websites]. Accessed 13 December 2020.
[4] Ministry of Defence. 2008. "Law on Civil Defense (Закон о Гражданской Обороне)". [https://milligosun.gov.tm/storage/file/10-o-grazhdanskoy-oborone-Cc7fJ1vwcf.pdf]. Accessed 8 March 2021.

4.6 INFECTION CONTROL PRACTICES AND AVAILABILITY OF EQUIPMENT

4.6.1 Healthcare associated infection (HCAI) prevention and control programs

4.6.1a

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

Yes = 1 , No = 0

Current Year Score: 1

There is publicly available evidence that Turkmenistan's public health system monitors and tracks healthcare-associated infections (HCAIs).

According to the National Strategy for Containment of Antimicrobial Resistance in Turkmenistan for 2017-2025, Turkmenistan has a functional surveillance system for infections emerging in health facilities, which is run by the State Epidemiological Surveillance and includes all activities related to developing and implementing measures to fight against treatment-related infections. The document also notes that there is a special emphasis on worker protocols to protect themselves, personal protective equipment, the supply of disposal equipment, disinfectants, and sterilization instruments. [1].

The Joint External Evaluation, which was conducted in 2016, notes that Turkmenistan tracks HCAIs in some hospitals, but that there is no comprehensive national plan to do so, and also that the State Epidemiological Service routinely performs tests, although it does not detail where these tests are performed [3]. The JEE scores the country 3 out of a possible 4 points (P.3.3

"HCAI prevention and control programmes") [2].The website of the Ministry of Health and Medical Industry and its section on the national laboratory have no information about monitoring HCAI in healthcare facilities [3]. There is no national public health institution [4].

[1] World Health Organization (WHO). 4 June 2018. "National Strategy for Containment of Antimicrobial Resistance in Turkmenistan for 2017-2025". [https://www.who.int/antimicrobial-resistance/national-action-plans/library/en/]. Accessed 13 December 2020.
[2] World Health Organization (WHO). June 2016. "Joint External Evaluation of IHR Core Capacities of Turkmenistan". [https://apps.who.int/iris/bitstream/handle/10665/255632/WHO-WHE-CPI-2017.29-eng.pdf;jsessionid=9B832A25BB05E0944628D2472E249694?sequence=1]. Accessed 8 March 2021.
[3] Ministry of Health and Medical Industry. Health Information Center of the Ministry of Health and Medical Industry. "Special Center for the Prevention of Dangerous Infectious Diseases (Специальный Центр профилактики опасных инфекционных заболеваний)". [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 13 December 2020.
[4] Embassy of Turkmenistan, Republic of Turkey. "Government websites of Turkmenistan". [https://turkey.tmembassy.gov.tm/en/websites]. Accessed 13 December 2020.

4.7 CAPACITY TO TEST AND APPROVE NEW MEDICAL COUNTERMEASURES

4.7.1 Regulatory process for conducting clinical trials of unregistered interventions

4.7.1a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that Turkmenistan has a policy or framework for conducting an ethical review before beginning a clinical trial. The webpages for the Ministry of Health and Medical Industry and Turkmenistan's Academy of Sciences have no information about a national requirement for ethical review before beginning a clinical trial. [1, 2] There is no Ministry of Research. [3] No academic studies containing information on ethical review for clinical trials in Turkmenistan could be found online.

[1] Ministry of Health and Medical Industry. Health Information Center of the Ministry of Health and Medical Industry. "Special Center for the Prevention of Dangerous Infectious Diseases (Специальный Центр профилактики опасных инфекционных заболеваний)". [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 13 December 2020.
[2] Academy of Sciences of Turkmenistan. [http://science.gov.tm/en/]. Accessed 13 December 2020.
[3] Embassy of Turkmenistan, Republic of Turkey. "Government websites of Turkmenistan". [https://turkey.tmembassy.gov.tm/en/websites]. Accessed 13 December 2020.

4.7.1b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that Turkmenistan has an expedited process for approving clinical trials for unregistered medical countermeasures to treat ongoing pandemics. The Ministry of Health and Medical Industry has no information on its website about expedited processes for approving clinical trials for unregistered medical countermeasures [1]. However, a post from 18 January 2021 notes that the Ministry of Health and Medical Industry has registered the Sputnik V vaccine for use in Turkmenistan. [2] The webpages for Turkmenistan's Academy of Sciences and the Medical University have no information about such expedited processes [3, 4]. There is no Ministry of Research [5]. No academic studies containing information on clinical trials in Turkmenistan could be found online.

[1] Ministry of Health and Medical Industry. Health Information Center of the Ministry of Health and Medical Industry. “Special Center for the Prevention of Dangerous Infectious Diseases (Специальный Центр профилактики опасных инфекционных заболеваний)". [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 13 December 2020.
[2] Ministry of Health and Medical Industry. 18 January 2021. "Turkmenistan became the First State in Central Asia to have Registered the Sputnik V Vaccine (Туркменистан стал первым государством в Центральной Азии, зарегистрировавшим вакцину «Спутник V»)". [https://www.saglykhm.gov.tm/makala]. Accessed 9 March 2021.
[3] Academy of Sciences of Turkmenistan. [http://science.gov.tm/en/]. Accessed 13 December 2020.
[4] The Turkmen Medical University. [http://science.gov.tm/en/organisations/medical_institute/]. Accessed 13 December 2020.
[5] Embassy of Turkmenistan, Republic of Turkey. “Government websites of Turkmenistan”. [https://turkey.tmembassy.gov.tm/en/websites]. Accessed 13 December 2020.

4.7.2 Regulatory process for approving medical countermeasures

4.7.2a

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

Current Year Score: 0

There is no publicly available evidence that Turkmenistan has an agency responsible for approving new medical countermeasures for humans. The Ministry of Health and Medical Industry has no information on its website about a government agency responsible for approving new medical countermeasures for humans [1]. However, a post from 18 January 2021 notes that the Ministry of Health and Medical Industry has registered the Sputnik V vaccine for use in Turkmenistan [2].The webpages for Turkmenistan's Academy of Sciences and the Turkmen Medical Institute have no information about a state agency responsible for such approval [3, 4]. There is no Ministry of Research [5]. No academic studies containing information on the process for approving new medical countermeasures in Turkmenistan could be found online.

[1] Ministry of Health and Medical Industry. Health Information Center of the Ministry of Health and Medical Industry. “Special Center for the Prevention of Dangerous Infectious Diseases (Специальный Центр профилактики опасных инфекционных заболеваний)". [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 13 December 2020.
[2] Ministry of Health and Medical Industry. 18 January 2021. "Turkmenistan became the First State in Central Asia to have Registered the Sputnik V Vaccine (Туркменистан стал первым государством в Центральной Азии, зарегистрировавшим вакцину «Спутник V»)". [https://www.saglykhm.gov.tm/makala]. Accessed 9 March 2021.
[3] Academy of Sciences of Turkmenistan. [http://science.gov.tm/en/]. Accessed 13 December 2020.
[4] The Turkmen Medical University. [http://science.gov.tm/en/organisations/medical_institute/]. Accessed 13 December

2020.
[5] Embassy of Turkmenistan, Republic of Turkey. “Government websites of Turkmenistan”. [https://turkey.tmembassy.gov.tm/en/websites]. Accessed 13 December 2020.

4.7.2b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that Turkmenistan has an expedited process for approving medical countermeasures for human use during public health emergencies. The webpage for the Ministry of Health and Medical Industry has no information about a government agency responsible for expediting the process of approving new medical countermeasures for human use during a public health emergencies [1]. However, a post from 18 January 2021 notes that the Ministry of Health and Medical Industry has registered the Sputnik V vaccine for use in Turkmenistan [2]. The webpages for Turkmenistan’s Academy of Sciences and the Turkmen Medical Institute also have no information about a state agency responsible for such approval [3, 4]. There is no Ministry of Research [5]. No information on approval of medical countermeasures was found in local media sources, including in news on the COVID-19 pandemic [6, 7, 8, 9]. No academic studies containing information on the procedure for approving medical countermeasures for human use in Turkmenistan could be found online.

[1] Ministry of Health and Medical Industry. Health Information Center of the Ministry of Health and Medical Industry. “Special Center for the Prevention of Dangerous Infectious Diseases (Специальный Центр профилактики опасных инфекционных заболеваний)". [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 13 December 2020.
[2] Ministry of Health and Medical Industry. 18 January 2021. "Turkmenistan became the First State in Central Asia to have Registered the Sputnik V Vaccine (Туркменистан стал первым государством в Центральной Азии, зарегистрировавшим вакцину «Спутник V»)". [https://www.saglykhm.gov.tm/makala]. Accessed 9 March 2021.
[3] Academy of Sciences of Turkmenistan. [http://science.gov.tm/en/]. Accessed 13 December 2020.
[4] The Turkmen Medical University. [http://science.gov.tm/en/organisations/medical_institute/]. Accessed 13 December 2020.
[5] Embassy of Turkmenistan, Republic of Turkey. “Government websites of Turkmenistan”. [https://turkey.tmembassy.gov.tm/en/websites]. Accessed 13 December 2020.
[6] Türkmenistan Bu Gün. [http://tdh.gov.tm]. Accessed 22 December 2020.
[7] Turkmenportal. [https://turkmenportal.com/]. Accessed 22 December 2020.
[8] Khronika Turkmenistana. [https://www.hronikatm.com/]. Accessed 22 December 2020.
[9] Radio Free Europe/Radio Liberty. "Turkmen service." [https://rus.azathabar.com/]. Accessed 22 December 2020.

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

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

5.1.1 Official IHR reporting

5.1.1a

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

Yes = 1 , No = 0

Current Year Score: 1

2020

World Health Organization

5.1.2 Integration of health into disaster risk reduction

5.1.2a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence that pandemics are integrated into Turkmenistan's national disaster risk reduction plan. Turkmenistan has a National Disaster Risk Management Strategy (DRR Strategy), but a United Nations report from August 2019 states that it focuses on alleviating the effects of climate change and natural disasters, without mentioning plans to counter pandemics [1]. The report does mention plans to combat the spread of Influenza and viral Hepatitis, but there is no mention of pandemics in general. In addition, the UN report says that a new DRR Strategy has been passed, but does not go into any detail about the strategy, noting only that it is significantly different from a previous drafted version that the UN had seen. The report does not go into detail about those differences, and the plan does not appear to be publicly available. The webpage of the Ministry of Health and Medical Industry has no information about pandemics being integrated into the DRR [2]. The webpages for Turkmenistans Academy of Sciences and the Turkmen Medical Institute also have no information about the DRR including a response to pandemics [3, 4]. There is no webpage for the State Commission for Emergency Situations [5].

[1] United Nations. August 2019. “Final Report: Turkmenistan-United Nations Partnership Partnership Framework for Development 2016-2020”. [https://turkmenistan.un.org/sites/default/files/2020-04/Turkeminstan%20PfD%20Evaluation%20Report.pdf]. Accessed 13 December 2020.
[2] Ministry of Health and Medical Industry. Health Information Center of the Ministry of Health and Medical Industry. “Special Center for the Prevention of Dangerous Infectious Diseases (Специальный Центр профилактики опасных инфекционных заболеваний)". [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 13 December 2020.

[3] Academy of Sciences of Turkmenistan. [http://science.gov.tm/en/]. Accessed 13 December 2020.
[4] The Turkmen Medical University. [http://science.gov.tm/en/organisations/medical_institute/]. Accessed 13 December 2020.
[5] Embassy of Turkmenistan, Republic of Turkey. "Government websites of Turkmenistan". [https://turkey.tmembassy.gov.tm/en/websites]. Accessed 13 December 2020.

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

5.2.1 Cross-border agreements

5.2.1a

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

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

Current Year Score: 2

Turkmenistan has a cross-border agreement on public health emergencies as part of a regional group. There is an agreement in place in the field of public health and security as part of the Commonwealth of Independent States (CIS), of which Turkmenistan and two of its neighbors are members, along with several other post-Soviet countries. The agreement was adopted in 1992, and the most recent update was in November 2016. The agreement establishes the Healthcare Cooperation Council as a body intended to promote multilateral cooperation in the field of public health, development of international relations in pharmacology, medical science and technology, and other public health matters. Its activities include policy coordination in prevention of common infectious diseases and minimizing the medical consequences of public health emergencies [1]. Its most recent meeting was in June 2020 in Minsk, Belarus [2]. Additionally, the Joint External Evaluation for Turkmenistan, conducted in June 2016, reports that Turkmenistan has relevant bilateral cross-border agreements with neighboring countries, though it does not mention which [3].

[1] Commonwealth of Independent States. "Passport: Health Cooperation Council of the Commonwealth of Independent States (Паспорт Совета по сотрудничеству в области здравоохранения СНГ)". [https://e-cis.info/cooperation/3031/77302/]. Accessed 13 December 2020.
[2] Commonwealth of Independent States. 2020. "Information about the XXXI meeting of the Council of the CIS on Health Cooperation (30 June 2020 Minsk, Belarus) (Информация о XXXI заседании Совета по сотрудничеству в области здравоохранения СНГ (30 июня 2020 года, г. Минск, Республика Беларусь))". [https://e-cis.info/cooperation/3081/87712]. Accessed 13 December 2020.
[3] World Health Organization (WHO). June 2016. "Joint External Evaluation of IHR Core Capacities of Turkmenistan". [https://apps.who.int/iris/bitstream/handle/10665/255632/WHO-WHE-CPI-2017.29-eng.pdf;jsessionid=9B832A25BB05E0944628D2472E249694?sequence=1]. Accessed 13 December 2020.

5.2.1b

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

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

Current Year Score: 0

There is no information that Turkmenistan has cross-border agreements, protocols or memoranda of understanding with neighboring countries, or as part of a regional group, with regard to animal health emergencies. The Joint External Evaluation for Turkmenistan, conducted in June 2016, reports that cross-border agreements exist with neighboring countries in the event of public health emergencies, but it does not mention animal health emergencies [1]. The webpages for the Ministry of Health and Medical Industry and the Ministry of Agriculture and Water Resources have no information on agreements with other countries with regard to animal health emergencies [2, 3]. A 2016 report from the Food and Agriculture Organisation of the United Nations (FAO) noted that, as concerned progressive control pathways for foot-and-mouth disease, the Central Asian states Kazakhstan, Kyrgyzstan, Turkmenistan and Tajikistan did not cooperate on sharing information and there was a lack of transparency among the Central Asian countries [4]. However, a separate report from the FAO, from 2019, said that the FAO had provided Turkmenistan with technical assistance for the implementation of a number of projects to combat transboundary animal diseases, such as avian influenza [5]. There is no website for the State Commission for Emergency Situations [6]. As a member of the Commonwealth of Independent States (CIS), Turkmenistan has access to the CIS Health Cooperation Council [7]. This body facilitates multilateral cooperation between CIS member states in the field of public health, including policy coordination in preventing infectious diseases and minimizing the medical consequences of catastrophes [7]. The body does not specifically deal with animal health, but it does deal with zoonotic diseases such as avian influenza. [7]

[1] World Health Organization (WHO). June 2016. “Joint External Evaluation of IHR Core Capacities of Turkmenistan”. [https://apps.who.int/iris/bitstream/handle/10665/255632/WHO-WHE-CPI-2017.29-eng.pdf;jsessionid=9B832A25BB05E0944628D2472E249694?sequence=1]. Accessed 13 December 2020.
[2] Ministry of Health and Medical Industry. Health Information Center of the Ministry of Health and Medical Industry. “Special Center for the Prevention of Dangerous Infectious Diseases (Специальный Центр профилактики опасных инфекционных заболеваний)". [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 13 December 2020.
[3] Ministry of Agriculture and Water Resources. 2019. [http://minagri.gov.tm]. Accessed 13 December 2020.
[4] Food and Agriculture Organisation of the United Nations. “7th Regional FMD West Eurasia Roadmap Meeting 6-8 April 2016”. [http://www.fao.org/fileadmin/user_upload/eufmd/Roadmap_2016/Final_report.pdf]. Accessed 13 December 2020.
[5] Food and Agriculture Organisation of the United Nations. 2019. “Turkmenistan and FAO: Partnering for resilient livelihoods and adaptation to climate change”. [https://policy.nl.go.kr/cmmn/FileDown.do;jsessionid=1bI4C1e3UaRlfR715aI6PG1oRUurdRGpwAQ09l8HjIrjJe4R0bo9T6OvT05ZOazR.sl-extwas_servlet_engine5?atchFileId=141788&fileSn=21325]. Accessed 13 December 2020.
[6] Embassy of Turkmenistan, Republic of Turkey. “Government websites of Turkmenistan”. [https://turkey.tmembassy.gov.tm/en/websites]. Accessed 13 December 2020.
[7] Commonwealth of Independent States. "Passport: Health Cooperation Council of the Commonwealth of Independent States". [http://e-cis.info/page.php?id=7942]. Accessed 8 March 2021.

5.3 INTERNATIONAL COMMITMENTS

5.3.1 Participation in international agreements

5.3.1a

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

Current Year Score: 2

2021

Biological Weapons Convention

5.3.1b

Has the country submitted confidence building measures for the Biological Weapons Convention in the past three years?

Yes = 1 , No = 0

Current Year Score: 0

2021

Biological Weapons Convention

5.3.1c

Has the state provided the required United Nations Security Council Resolution (UNSCR) 1540 report to the Security Council Committee established pursuant to resolution 1540 (1540 Committee)?

Yes = 1 , No = 0

Current Year Score: 1

2021

Biological Weapons Convention

5.3.1d

Extent of United Nations Security Council Resolution (UNSCR) 1540 implementation related to legal frameworks and enforcement for countering biological weapons:

Very good (60+ points) = 4, Good (45–59 points) = 3, Moderate (30–44 points) = 2, Weak (15–29 points) = 1, Very weak (0–14 points) or no matrix exists/country is not party to the BWC = 0

Current Year Score: 1

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 public evidence that Turkmenistan has allocated national funds to improve capacity to address epidemic threats within the past three years. The laws on the State Budget from the years 2018-2021 provide no details on how the money is to be spent [1, 2, 3, 4]. No evidence was found in news sources that Turkmenistan has allocated national funds to improve their capacity to address epidemic threats [5, 6, 7, 8]. No information was found on the websites of the Ministry of Health and Medical Industry, the Ministry of Agriculture and Water Resources, or the Ministry of Defense [9, 10, 11].

[1] Zolotoi Vek. 27 November 2017. “On the State Budget of Turkmenistan for 2018 (О Государственном бюджете Туркменистана на 2018 год)”. [https://turkmenistan.gov.tm/?id=15114]. Accessed 22 December 2020.
[2] Zolotoi Vek. 1 December 2018. “On the State Budget of Turkmenistan for 2019 (О Государственном бюджете Туркменистана на 2019 год)”. [https://turkmenistan.gov.tm/?id=17679]. Accessed 22 December 2020.
[3] Ministry of Justice. 30 November 2019. “On the State Budget of Turkmenistan for 2020 (О Государственном бюджете Туркменистана на 2020 год)”. [http://www.minjust.gov.tm/mcenter-single-ru/291]. Accessed 22 December 2020.
[4] TurkmenPortal. 29 October 2020. “On the State Budget of Turkmenistan for 2021 (О Государственном бюджете Туркменистана на 2021 год)”. [https://turkmenportal.com/catalog/17710]. Accessed 22 December 2020.
[5] Türkmenistan Bu Gün. [http://tdh.gov.tm].Accessed 22 December 2020.
[6] Turkmenportal. [https://turkmenportal.com/]. Accessed 22 December 2020.
[7] Khronika Turkmenistana. [https://www.hronikatm.com/]. Accessed 22 December 2020.
[8] Radio Free Europe/Radio Liberty. "Turkmen service." [https://rus.azathabar.com/]. Accessed 22 December 2020.
[9] Ministry of Health and Medical Industry. [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 22 December 2020.
[10] Ministry of Agriculture and Water Resources. [http://minagri.gov.tm]. Accessed 22 December 2020.
[11] Ministry of Defence. [http://milligosun.gov.tm]. Accessed 22 December 2020.

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

5.5.2a

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

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

Current Year Score: 0

2021

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

5.5.2b

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

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

Current Year Score: 0

2021

OIE PVS assessments

5.5.3 Financing for emergency response

5.5.3a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no public evidence that Turkmenistan has a publicly identified special emergency public financing mechanism or funds that the country can access in the face of a public health emergency. The International Development Association does not list Turkmenistan as a country eligible to IDA resources [1]. There is no evidence that Turkmenistan has agreement with the World Bank pandemic financing facility [2]. The 2016 JEE assessment has no information about special emergency financing or funds Turkmenistan can access in the face of a public health emergency [3]. The website of Turkmenistan's Health Ministry has no information about special emergency financing or funds the country can use in the event of a public health emergency [4].

[1] International Development Association. “Borrowing Countries”. [http://ida.worldbank.org/about/borrowing-countries] Accessed 13 December 2020.

[2] World Bank. “Pandemic Emergency Financing Facility (PEF) Operational Brief for Eligible Countries”. [http://pubdocs.worldbank.org/en/119961516647620597/PEF-Operational-Brief-Dec-2017.pdf]. Accessed 13 December 2020.
[3] World Health Organization (WHO). June 2016. “Joint External Evaluation of IHR Core Capacities of Turkmenistan”. [https://apps.who.int/iris/bitstream/handle/10665/255632/WHO-WHE-CPI-2017.29-eng.pdf;jsessionid=9B832A25BB05E0944628D2472E249694?sequence=1]. Accessed 13 December 2020.
[4] Ministry of Health and Medical Industry. Health Information Center of the Ministry of Health and Medical Industry. “Special Center for the Prevention of Dangerous Infectious Diseases (Специальный Центр профилактики опасных инфекционных заболеваний)". [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 13 December 2020.

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

5.5.4a

Is there evidence that senior leaders (president or ministers), in the past three years, have made a public commitment either to:
- Support other countries to improve capacity to address epidemic threats by providing financing or support?
- Improve the country’s domestic capacity to address epidemic threats by expanding financing or requesting support to improve capacity?
Needs to meet at least one of the criteria to be scored a 1 on this measure., Yes for both = 1, Yes for one = 1, No for both = 0

Current Year Score: 0

There is no public evidence that leaders in Turkmenistan have, in the past three years, made a public commitment either to support other countries to improve capacity to address epidemic threats by providing financing or support, or improve the country's domestic capacity to address epidemic threats by expanding financing or requesting support to improve capacity. No evidence was found of such statements in the media [1, 2, 3, 4]. No information was found on the websites of the Ministry of Health and Medical Industry , the Ministry of Agriculture and Water Resources, or the Ministry of Defence [5, 6, 7]. No information was found on the website of the World Health Organization [8].

[1] Türkmenistan Bu Gün. [http://tdh.gov.tm]. Accessed 22 December 2020.
[2] Turkmenportal. [https://turkmenportal.com/]. Accessed 22 December 2020.
[3] Khronika Turkmenistana. [https://www.hronikatm.com/]. Accessed 22 December 2020.
[4] Radio Free Europe/Radio Liberty. "Turkmen service." [https://rus.azathabar.com/]. Accessed 22 December 2020.
[5] Ministry of Health and Medical Industry. [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 22 December 2020.
[6] Ministry of Agriculture and Water Resources. [http://minagri.gov.tm]. Accessed 22 December 2020.
[7] Ministry of Defence. [http://milligosun.gov.tm]. Accessed 22 December 2020.
[8] World Health Organisation. “Turkmenistan”. [https://www.who.int/countries/tkm/]. Accessed 22 December 2020.

5.5.4b

Is there evidence that the country has, in the past three years, either:
- Provided other countries with financing or technical support to improve capacity to address epidemic threats?
- Requested financing or technical support from donors to improve the country’s domestic capacity to address epidemic threats?
Needs to meet at least one of the criteria to be scored a 1 on this measure., Yes for both = 1, Yes for one = 1, No for both = 0

Current Year Score: 1

There is public evidence that Turkmenistan has, in the past three years, invested finances received through foreign funding to improve its own capacity to address epidemic threats, but there is no evidence that Turkmenistan has invested finances to support other countries to improve capacity to address epidemic threats.

According to the Georgetown Infectious Disease Atlas (GIDA), Turkmenistan has received funding from the World Health Organization, United Nations Development Program, Germany, and others. In the period from 2014-2020, Turkmenistan has received US$ 36.86 million, with US$ 42.72 million having been committed. Top funding categories include real-time surveillance, national laboratory system development, and zoonotic diseases. [1]

The website of the Ministry of Health and Medical Industry has no information about the country financing or supporting other countries efforts to improve capacity to address epidemic threats. [2] The "healthcare" section of the website of the Ministry of Foreign Affairs has no information about finances or support for other countries to improve their capacity to address epidemic threats. [3]

[1] Georgetown Infectious Disease Atlas. "Turkmenistan." [https://tracking.ghscosting.org/details/226/recipient]. Accessed 22 December 2020.
[2] Ministry of Health and Medical Industry. [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 22 December 2020.
[3] Ministry of Foreign Affairs. “Healthcare”. [https://www.mfa.gov.tm/en/articles/7] Accessed 22 December 2020.

5.5.4c

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

Current Year Score: 0

2021

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

5.6 COMMITMENT TO SHARING OF GENETIC AND BIOLOGICAL DATA AND SPECIMENS

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

5.6.1a

Is there a publicly available plan or policy for sharing genetic data, clinical specimens, and/or isolated specimens (biological materials) along with the associated epidemiological data with international organizations and/or other countries that goes beyond influenza?
Yes = 1 , No = 0

Current Year Score: 0

There is no public evidence that Turkmenistan has a plan or policy for sharing genetic data, epidemiological data, clinical specimens, or isolated specimens with international organizations or other countries that goes beyond influenza. The websites of the Ministry of Health and Medical Industry and the Ministry of Agriculture and Water Resources do not have information on an available plan or policy for sharing genetic data, epidemiological data, clinical specimens, or isolated specimens with international organizations or other countries that goes beyond influenza [1, 2]. The website for the Academy of Science of Turkmenistan also has no information on a plan or policy for sharing genetic data, epidemiological data, clinical specimens, or isolated specimens with international organizations and/or other countries that goes beyond influenza [3]. Turkmenistan does not have a Ministry of Research [4].

[1] Ministry of Health and Medical Industry. Health Information Center of the Ministry of Health and Medical Industry. "Special Center for the Prevention of Dangerous Infectious Diseases (Специальный Центр профилактики опасных инфекционных заболеваний)". [http://www.saglykhm.gov.tm/app/saglykkanuncylygy]. Accessed 13 December 2020.
[2] Ministry of Agriculture and Environmental Protection. [http://minagri.gov.tm]. Accessed 13 December 2020.
[3] Academy of Science of Turkmenistan. [http://science.gov.tm/en/about/]. Accessed 13 December 2020.
[3] Embassy of Turkmenistan, Republic of Turkey. "Government websites of Turkmenistan". [https://turkey.tmembassy.gov.tm/en/websites]. Accessed 7 December 2020.

5.6.1b

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

Yes = 0 , No = 1

Current Year Score: 1

There is no public evidence Turkmenistan has not shared samples in accordance with the PIP framework in the past two years. The World Health Organization has not reported any non-compliance in the past two years by Turkmenistan [1]. There were no reports in international or local media suggesting Turkmenistan had not shared samples in accordance with the PIP framework in the past two years.

[1] World Health Organization (WHO). "Virus sharing". [https://www.who.int/influenza/pip/virus_sharing/en/]. Accessed 13 December 2020.

5.6.1c

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

Yes = 0 , No = 1

Current Year Score: 1

There is no evidence Turkmenistan has not shared pandemic pathogen samples during an outbreak in the past two years. Turkmenistan has not reported any outbreaks of diseases of pandemic concern in the past two years to the World Health Organization (WHO). [1] Even though the country has officially reported zero cases of COVID-19, the government has allowed the WHO to conduct coronavirus sampling [2]. There is no evidence of WHO press releases or other media suggesting Turkmenistan failed to share pandemic pathogen samples during an outbreak in the past two years.

[1] World Health Organization (WHO). Disease Outbreak News. [https://www.who.int/csr/don/en/]. Accessed 13 December 2020.

[2] Hindustan Times. 8 August 2020. "Turkmenistan to Let WHO Conduct Independent Coronavirus Sampling". [https://www.hindustantimes.com/world-news/turkmenistan-to-let-who-conduct-independent-coronavirus-sampling/story-ZMNmbxvbHZEpGfQRWsWoTK.html]. Accessed 13 December 2020.

Category 6: Overall risk environment and vulnerability to biological threats

6.1 POLITICAL AND SECURITY RISK

6.1.1 Government effectiveness

6.1.1a

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

Input number

Current Year Score: 0

2020

Economist Intelligence

6.1.1b

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

Input number

Current Year Score: 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: 19

2020

Transparency International

6.1.1f

Accountability of public officials (Economist Intelligence score; 0-4, where 4=best)

Input number

Current Year Score: 0

2020

Economist Intelligence

6.1.1g

Human rights risk (Economist Intelligence score; 0-4, where 4=best)

Input number

Current Year Score: 0

2020

Economist Intelligence

6.1.2 Orderly transfers of power

6.1.2a

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

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

Current Year Score: 0

2021

Economist Intelligence

6.1.3 Risk of social unrest

6.1.3a

What is the risk of disruptive social unrest?

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

Current Year Score: 2

2021

Economist Intelligence

6.1.4 Illicit activities by non-state actors

6.1.4a

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

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

Current Year Score: 3

2021

Economist Intelligence

6.1.4b

What is the level of illicit arms flows within the country?

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

Current Year Score: 2

2020

UN Office of Drugs and Crime (UNODC)

6.1.4c

How high is the risk of organized criminal activity to the government or businesses in the country?

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

Current Year Score: 3

2021

Economist Intelligence

6.1.5 Armed conflict

6.1.5a

Is this country presently subject to an armed conflict, or is there at least a moderate risk of such conflict in the future?
No armed conflict exists = 4, Yes; sporadic conflict = 3, Yes; incursional conflict = 2, Yes, low-level insurgency = 1, Yes; territorial conflict = 0

Current Year Score: 4

2021

Economist Intelligence

6.1.6 Government territorial control

6.1.6a

Does the government's authority extend over the full territory of the country?
Yes = 1, No = 0

Current Year Score: 1

2021

Economist Intelligence

6.1.7 International tensions

6.1.7a

Is there a threat that international disputes/tensions could have a negative effect?
No threat = 4, Low threat = 3, Moderate threat = 2, High threat = 1, Very high threat = 0

Current Year Score: 2

2021

Economist Intelligence

6.2 SOCIO-ECONOMIC RESILIENCE

6.2.1 Literacy

6.2.1a

Adult literacy rate, population 15+ years, both sexes (%)

Input number

Current Year Score: 99.7

2014

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: 0.67

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: 0.58

2008-2018

World Bank; Economist Impact

6.2.3b

Share of employment in the informal sector

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

Current Year Score: 0

No information was found on the share of employment in the informal sector in Turkmenistan. The 2020 BertelsmannStiftung Transformation Index estimates that the share of people with regular employment is currently at 30%, while real unemployment is near 60%, and says that many people with stable employment are involved in the informal

sector, but it makes no mention of the share of people involved. [1]. A 2019 estimate from Kazakhstan's National Academy of Sciences puts the informal economy between 22-27% of GDP, but makes no mention of the share of people involved [2]. No further information was found on the websites of the World Bank, International Labor Organization, International Monetary Fund, or the Statistical Committee of Turkmenistan [3, 4, 5, 6].

[1] BertelsmannStiftung Transformation Index. 2020. “Turkmenistan Country Report 2020”. [https://www.bti-project.org/en/reports/country-report-TKM-2020.html]. Accessed 13 December 2020.
[2] Kazakhstan National Academy of Sciences. 2019. “Non-Observed Economy as Part of the Developing Economy”. [http://rmebrk.kz/journals/5165/83084.pdf#page=215]. Accessed 13 December 2020.
[3] The Heritage Foundation. 2014. "Index of Economic Freedom: Turkmenistan". [https://www.heritage.org/index/pdf/2014/countries/turkmenistan.pdf]. Accessed 8 March 2021.
[4] United Nations Conference on Trade and Development. 2020. "Challenges, Policy Options, and the Way Forward". [https://unctad.org/system/files/official-document/aldc2020d1_en.pdf]. Accessed 8 March 2021.
[5] World Bank. “Informal Employment”. [https://data.worldbank.org/indicator/SL.ISV.IFRM.ZS]. Accessed 13 December 2020.
[6] International Labour Organisation. [https://ilostat.ilo.org/]. Accessed 13 December 2020.
[7] International Monetary Fund. [https://www.imf.org/en/Data]. Accessed 13 December 2020.
[8] Statistical Committee of Turkmenistan. [https://stat.gov.tm/publication/1]. Accessed 13 December 2020.

6.2.3c

Coverage of social insurance programs (% of population)
Scored in quartiles (0-3, where 3=best)
Current Year Score: 2

2016, or latest available

World Bank; Economist Impact calculations

6.2.4 Public confidence in government

6.2.4a

Level of confidence in public institutions
Input number
Current Year Score: 0

2021

Economist Intelligence Democracy Index

6.2.5 Local media and reporting

6.2.5a

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

Current Year Score: 0

2021

Economist Intelligence Democracy Index

6.2.6 Inequality

6.2.6a

Gini coefficient

Scored 0-1, where 0=best

Current Year Score: 0.41

Latest available.

World Bank; Economist Impact calculations

6.3 INFRASTRUCTURE ADEQUACY

6.3.1 Adequacy of road network

6.3.1a

What is the risk that the road network will prove inadequate to meet needs?

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

Current Year Score: 1

2021

Economist Intelligence

6.3.2 Adequacy of airports

6.3.2a

What is the risk that air transport will prove inadequate to meet needs?

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

Current Year Score: 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: 2

2021

Economist Intelligence

6.4 ENVIRONMENTAL RISKS

6.4.1 Urbanization

6.4.1a

Urban population (% of total population)

Input number

Current Year Score: 52.05

2019

World Bank

6.4.2 Land use

6.4.2a

Percentage point change in forest area between 2006–2016

Input number

Current Year Score: 0

2008-2018

World Bank; Economist Impact

6.4.3 Natural disaster risk

6.4.3a

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

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

Current Year Score: 1

2021

Economist Intelligence

6.5 PUBLIC HEALTH VULNERABILITIES

6.5.1 Access to quality healthcare

6.5.1a

Total life expectancy (years)

Input number

Current Year Score: 68.07

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: 668.2

2019

WHO

6.5.1c

Population ages 65 and above (% of total population)

Input number

Current Year Score: 4.59

2019

World Bank

6.5.1d

Prevalence of current tobacco use (% of adults)

Input number

Current Year Score: 27.43

2018

World Bank

6.5.1e

Prevalence of obesity among adults

Input number

Current Year Score: 18.6

2016

WHO

6.5.2 Access to potable water and sanitation

6.5.2a

Percentage of homes with access to at least basic water infrastructure

Input number

Current Year Score: 98.81

2017

UNICEF; Economist Impact

6.5.2b

Percentage of homes with access to at least basic sanitation facilities

Input number

Current Year Score: 98.7

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: 231.06

2018

WHO Global Health Expenditure database

6.5.4 Trust in medical and health advice

6.5.4a

Trust medical and health advice from the government

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

Current Year Score: 2

2018

Wellcome Trust Global Monitor 2018

6.5.4b

Trust medical and health advice from medical workers

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

Current Year Score: 2

2018

Wellcome Trust Global Monitor 2018