

Azerbaijan

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

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	8
1.3 Biosecurity	15
1.4 Biosafety	25
1.5 Dual-use research and culture of responsible science	28
1.6 Immunization	33
CATEGORY 2: EARLY DETECTION AND REPORTING FOR EPIDEMICS OF POTENTIAL INTERNATIONAL CONCERN	34
2.1 Laboratory systems strength and quality	34
2.2 Laboratory supply chains	38
2.3 Real-time surveillance and reporting	40
2.4 Surveillance data accessibility and transparency	43
2.5 Case-based investigation	51
2.6 Epidemiology workforce	55
CATEGORY 3: RAPID RESPONSE TO AND MITIGATION OF THE SPREAD OF AN EPIDEMIC	56
3.1 Emergency preparedness and response planning	56
3.2 Exercising response plans	60
3.3 Emergency response operation	64
3.4 Linking public health and security authorities	66
3.5 Risk communications	67
3.6 Access to communications infrastructure	71

3.7 Trade and travel restrictions	72
-----------------------------------	----

CATEGORY 4: SUFFICIENT AND ROBUST HEALTH SECTOR TO TREAT THE SICK AND PROTECT HEALTH WORKERS 74

4.1 Health capacity in clinics, hospitals, and community care centers	74
-----------------------------------------------------------------------	----

4.2 Supply chain for health system and healthcare workers	78
-----------------------------------------------------------	----

4.3 Medical countermeasures and personnel deployment	84
------------------------------------------------------	----

4.4 Healthcare access	86
-----------------------	----

4.5 Communications with healthcare workers during a public health emergency	87
-----------------------------------------------------------------------------	----

4.6 Infection control practices and availability of equipment	89
---------------------------------------------------------------	----

4.7 Capacity to test and approve new medical countermeasures	90
--------------------------------------------------------------	----

CATEGORY 5: COMMITMENTS TO IMPROVING NATIONAL CAPACITY, FINANCING PLANS TO ADDRESS GAPS, AND ADHERING TO GLOBAL NORMS 94

5.1 International Health Regulations (IHR) reporting compliance and disaster risk reduction	94
---------------------------------------------------------------------------------------------	----

5.2 Cross-border agreements on public health and animal health emergency response	96
-----------------------------------------------------------------------------------	----

5.3 International commitments	97
-------------------------------	----

5.4 Joint External Evaluation (JEE) and Performance of Veterinary Services Pathway (PVS)	99
------------------------------------------------------------------------------------------	----

5.5 Financing	100
---------------	-----

5.6 Commitment to sharing of genetic and biological data and specimens	105
------------------------------------------------------------------------	-----

CATEGORY 6: OVERALL RISK ENVIRONMENT AND VULNERABILITY TO BIOLOGICAL THREATS 107

6.1 Political and security risk	107
---------------------------------	-----

6.2 Socio-economic resilience	110
-------------------------------	-----

6.3 Infrastructure adequacy	113
-----------------------------	-----

6.4 Environmental risks	114
-------------------------	-----

6.5 Public health vulnerabilities	114
-----------------------------------	-----

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

1.1 ANTIMICROBIAL RESISTANCE (AMR)

1.1.1 AMR surveillance, detection, and reporting

1.1.1a

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

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

Current Year Score: 0

Available evidence does not indicate that Azerbaijan has a stand-alone national AMR plan for the surveillance, detection and reporting of priority AMR pathogens. None of the key government entities with potential responsibility for addressing the topic--the national ministries of agriculture and health, the national public health institute ISIM and the Food Safety Agency AQTA--indicate the existence of such a plan. [1, 2, 3, 4] Similarly, the WHO lists no national action plan on AMR. [5]

Nevertheless, the misuse of antibiotics during the current COVID-19 pandemic has prompted the Azerbaijan Country Office of the World Health Organization (WHO) to raise awareness of AMR among the country's health authorities, and has indicated that collaborative work on the topic is being undertaken in the country. [6]

[1] Republic of Azerbaijan. Ministry of Health. 2020. "Sanitary-epidemiological service (Sanitariya-epidemioloji xidmət)." [<http://health.gov.az/sanitariya-epidemioloji-xidmet.html>] Accessed December 2020

[2] Republic of Azerbaijan. Ministry of Health. Center for Public Health and Reforms (ISIM). 2020. Website. [<https://isim.az/en/main>] Accessed December 2020

[3] Republic of Azerbaijan. Ministry of Agriculture. 2020. Website. [<http://www.agro.gov.az/>] Accessed December 2020

[4] Republic of Azerbaijan. Food Safety Agency of The Republic of Azerbaijan. 2020. Website [<http://afsa.gov.az/en/home>] Accessed December 2020

[5] World Health Organization (WHO). November 24 2020. "WHO urges coordinated action against antibiotics resistance." [<https://azerbaijan.un.org/en/102182-who-urges-coordinated-action-against-antibiotics-resistance>] Accessed December 2020

[6] World Health Organization (WHO). Antimicrobial resistance. 2020. "Library of national action plans". [<https://www.who.int/antimicrobial-resistance/national-action-plans/library/en/>] Accessed December 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

It is unclear if Azerbaijan's national laboratory system tests for more than one of the 7 +1 priority AMR pathogens as a matter of policy., but there is some evidence of testing for one pathogen. There is independent evidence that the country tests for at least one of the priority AMR pathogens. Since 2014 there is a government program to test for multi-drug-resistant

tuberculosis, including among prison inmates. The program is led by the Ministry of Health's National TB Control Program Central Unit, the national TB laboratory network includes the National TB Reference Laboratory in Baku, five regional culture laboratories and 67 peripheral microscopy laboratories. [1]

The health ministry's regulations on surveillance and control of especially dangerous infections stipulates policy measures (including sample collection and laboratory testing) for 11 different diseases. Surveillance information entered in the YXEMS national electronic reporting system for infectious diseases, overseen by the ministry's Center for Hygiene and Epidemiology. The diseases and corresponding diagnostic tests delineated under this policy are: anthrax (microscopy, PCR), Avian influenza (H5N1); botulism (lab testing for toxicity); brucellosis (laboratory tests (serological, bacteriological, PCR); *Y. pestis* (plague)-- (serological, bacteriological, PCR); smallpox (PCR); tick-borne encephalitis (virological or PCR); tularemia (serological, bacteriological, PCR); viral hemorrhagic fever (serological, virological or PCR); rabies (lab testing of tissue samples); and cholera (serological, bacteriological, PCR). [2]

Other evidence indicates that there is a policy to test for 18 key especially dangerous pathogens (EDPs), such as the aforementioned brucella and bacillus anthracis, specifically in those laboratories in Azerbaijan that have been "enhanced" through participation in the U.S. government's Cooperative Biological Engagement Program (CBEP). [3] According to an article published by the Ministry of Health in 2016, a new BSL-3 (biological safety level-3) Central Reference Laboratory is in development at the Ministry's Republic Anti-Plague Station (RAPS), but since then it has provided no detail or updates on the status of this facility, or on its own capacity to test for pathogens. [4]

Otherwise, direct evidence is sparse on domestic testing for the other priority AMR pathogens: *E. coli*, *K. pneumoniae*, *S. aureus*, *S. pneumoniae*, *Salmonella* spp., *Shigella* spp., and *N. gonorrhoeae*. For example, ISIM, the Ministry of Health's public health directorate, has published a clinical protocol for administering antibiotics describes procedures to use against all these pathogens, without noting any capacity to test for them in-country. [5] Similarly, the Ministry of Agriculture lists no programs for AMR testing. [6]

Finally, the World Health Organization's (WHO) list of national action plans for antimicrobial resistance does not contain one for Azerbaijan. [7]

[1] N. Alikhanova, I. Akhundova, M. Seyfaddinova, E. Mammadbayov, V. Mirtskulava, S. Rüşch-Gerdes, R. Bayramov, J. Suleymanova, K. Kremer, A. Dadu, C. D. Acosta, A. D. Harries, and M. Dara. 2014. "First national survey of anti-tuberculosis drug resistance in Azerbaijan and risk factors analysis". In *Public Health Action*. 2014 Oct 21; 4(Suppl 2): S17-S23. [<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4547507/>] Accessed December 2020

[2] Republic of Azerbaijan. Ministry of Health. August 19 2010. "REGULATIONS FOR SURVEILLANCE AND CONTROL OF ESPECIALLY DANGEROUS INFECTIONS (XÜSUSİ TƏHLÜKƏLİ İNFEKSIYALAR ÜZƏRİNDƏ MÜŞAHİDƏ VƏ NƏZARƏT DƏİR QAYDALAR)." [<http://health.gov.az/epidemiologiya.html>] Accessed December 2020

[3] Saida Aliyeva, Peter Flanagan, April Johnson and Lisa Strelow. 2016. "Toward the Development of a Sustainable Scientific Research Culture in Azerbaijan (2011-2015)". *Front. Public Health*, 04 July 2016. [<https://www.frontiersin.org/articles/10.3389/fpubh.2016.00144/full>] Accessed December 2020

[4] Republic of Azerbaijan. Ministry of Health. May 12 2016. "Epidemiological situation in Azerbaijan is completely under control (Azərbaycanda epidemioloji vəziyyət tamamilə nəzarət altındadır)." [<http://sehiyye.gov.az/main/1278-azrbaycanda-epidemioloji-vziyyt-tamamil-nzart-altndadr.html>] Accessed December 2020 and January 2021

[5] Ministry of Health of the Republic of Azerbaijan. National Public Health Institute (ISIM). 2009. "CLINICAL PROTOCOL ON USE OF ANTIMICROBIAL MEDICINES (ANTİMİKROB DƏRMAN VASİTƏLƏRİNİN İSTİFADƏSİ ÜZRƏ KLİNİK PROTOKOL)." [https://isim.az/upload/File/reports/33_ANTIMIKROB_DERMAN_W.pdf] Accessed December 2020

[6] Ministry of Agriculture of the Republic of Azerbaijan. 2020. Website. [<http://www.agro.gov.az/>] Accessed December 2020

[7] World Health Organization (WHO). Antimicrobial resistance. "Library of national action plans".

[<https://www.who.int/antimicrobial-resistance/national-action-plans/library/en/>] Accessed December 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

The government of Azerbaijan provides no readily available evidence that it conducts detection or surveillance activities (e.g. in soil, waterways, etc.) for antimicrobial residues or AMR organisms as a matter of course. While the Ministry of Ecology and Natural Resources of the Republic of Azerbaijan (the national environmental agency), provides no evidence of such a policy, or of participating in a national action plan on AMR organisms, it does have an environmental monitoring division with laboratories that monitor the air, water and land for pollutants and toxins such as heavy metals and pesticide residues. [1] Similarly, the sanitary-epidemiological service of the country's Ministry of Health gives no indication that it conducts such AMR surveillance in the natural environment. [2] Relatedly, the World Health Organization (WHO) provides no evidence that Azerbaijan has a national action plan on AMR organisms. [3]

[1] Republic of Azerbaijan. Ministry of Ecology and Natural Resources. 2020. "Directions of Activity (Fəaliyyət istiqamətləri)." [<http://eco.gov.az/az>] Accessed December 2020

[2] Republic of Azerbaijan. Ministry of Health. 2020. "Sanitary-epidemiological service (Sanitariya-epidemioloji xidmət)." [<http://health.gov.az/sanitariya-epidemioloji-xidmet.html>] Accessed December 2020

[3] World Health Organization (WHO). Antimicrobial resistance. "Library of national action plans". [<https://www.who.int/antimicrobial-resistance/national-action-plans/library/en/>] Accessed December 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

Available evidence indicates that in Azerbaijan there is no national legislation specifically requiring prescriptions for antibiotic use for humans, considered as a class of drugs. The country's official drugs regulator, the Analytical Expertise Center, does not discuss prescriptions in its description of its the control of pharmaceuticals in the country. [1] In fact, the regulator's list of drugs approved for sale without a prescription includes several antibiotics, such as clindamycin, fluconazole and nifuroxazide. [2] Azerbaijan's main law on drugs, the Law on Medicines, prohibits the dispensing of certain medicines without a doctor's prescription, it acknowledges medicines sold without prescription as a category and does not ban outright the sale of antibiotics without a prescription. [3] The Ministry of Health provides no evidence of having a specific policy on antibiotics and prescriptions. [4]

By contrast, from the Azeri press evidence is abundant that antibiotics are sold freely in the country without prescription. For example, in November 2020 several articles reported that on the occasion of World Antimicrobial Awareness Week the local representative of the World Health Organization (WHO) in Azerbaijan had strongly recommended that the practice be banned or at least restricted. [5]

Finally, it should be noted that the WHO does not list Azerbaijan as having a national plan for antimicrobial resistance. [6]

[1] Republic of Azerbaijan. Analytical Expertise Center (Analitik Ekspertiza Merkezi). "About drug control (Dərman nəzarəti haqqında)." [<http://www.pharma.az/index.php?lang=1&ind=main&id=28>] Accessed December 2020

[2] Republic of Azerbaijan. Analytical Expertise Center (Analitik Ekspertiza Merkezi). "List of over-the-counter drugs (Resepsiz buraxılan dərman vasitələrinin siyahısı)." [<http://www.pharma.az/index.php?lang=1&ind=main&id=97>] Accessed December 2020

[3] Republic of Azerbaijan. Analytical Expertise Center (Analitik Ekspertiza Merkezi). Legislation. "Law on Medicines (Dərman vasitələri haqqında Qanun)." [<http://www.pharma.az/index.php?lang=1&ind=main&id=184>] Accessed December 2020

[4] Republic of Azerbaijan. Ministry of Health. 2020. Website. [<http://health.gov.az/>] Accessed December 2020

[5] Sputnik.Az. November 24 2020. "WHO: Free sale of antibiotics in pharmacies should be banned in Azerbaijan (ÜST: Azərbaycanda antibiotiklərin apteklərdə sərbəst satışı qadağan olunmalıdır)." [<https://sputnik.az/health/20201124/425546071/ST-Azərbaycanda-antibiotiklərin-apteklrd-srbst-sat-qadaan-olunmaldr.html>] Accessed December 2020

[6] World Health Organization (WHO). Antimicrobial resistance. "Library of national action plans". [<https://www.who.int/antimicrobial-resistance/national-action-plans/library/en/>] Accessed 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

Available evidence indicates that in Azerbaijan, there is no national legislation specifically requiring prescriptions for antibiotic use for animals, considered as a class of drugs. The basic law in this regard, Law No. 825 of 1994 on veterinary medicine, itself does not mention antibiotics, and certain amendments to it, such as Presidential Decree No. 316 of 200, only mandate that a procedure be confirmed "...for determining the adjustment of antibiotics" and other "veterinary preparations which are biological stimulators." [1]

The Agrarian Services Agency of the Ministry of Agriculture operates an epizootic prevention program that aims to regulate the use of veterinary drugs in the field. Although it appears that the objective is to limit the overuse of such medicines, this is not clearly stated, and more detail on the program's key measures is lacking. [2]

The Ministry of Health's pharmaceutical profile of the country, last published in 2011 in collaboration with the World Health Organization (WHO), does not mention animal or zoonotic diseases.[3] Finally, it should be noted that the WHO does not list Azerbaijan as having a national plan for antimicrobial resistance. [4]

[1] Ecolex. Legislation. Republic of Azerbaijan. "Law No. 825 on veterinary medicine." [<https://www.ecolex.org/details/legislation/law-no-825-on-veterinary-medicine-lex-faoc047725/>] Accessed December 2020

[2] Republic of Azerbaijan. Ministry of Agriculture. Agrarian Services Agency. "Veterinary service (Baytarlıq xidməti)." [<http://axa.gov.az/xidmetler/baytarliq-xidmeti>] Accessed December 2020

[3] Republic of Azerbaijan. Ministry of Health. 2011. "Azerbaijan Pharmaceutical Country Profile". [https://www.who.int/medicines/areas/coordination/Azerbaijan_PSCPNarrativeQuestionnaire_12052011.pdf?ua=1] Accessed December 2020

[4] World Health Organization (WHO). Antimicrobial resistance. "Library of national action plans". [<https://www.who.int/antimicrobial-resistance/national-action-plans/library/en/>] Accessed December 2020

1.2 ZONOTIC DISEASE

1.2.1 National planning for zoonotic diseases/pathogens

1.2.1a

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

Yes = 1, No = 0

Current Year Score: 1

Azerbaijan clearly addresses zoonotic disease as part of a larger strategy to address epizootic diseases through prophylaxis and diagnosis. This policy is executed by the Agrarian Services Agency of the Ministry of Agriculture, which operates a surveillance system for both epizootic and zoonotic diseases. [1] An intervention called the "Epizootic Prevention and Diagnostic Action Plan" regularly undertakes prophylactic measures while collecting incidence and other data from the field. [2]

In addition, the health ministry's regulations on surveillance and control of especially dangerous infections stipulates policy measures (including sample collection and laboratory testing) for 11 different diseases, including several zoonoses. The diseases and corresponding diagnostic tests delineated under this policy are: anthrax (microscopy, PCR), Avian influenza (H5N1); botulism (lab testing for toxicity); brucellosis (laboratory tests (serological, bacteriological, PCR); Y. pestis (plague)-- (serological, bacteriological, PCR); smallpox (PCR); tick-borne encephalitis (virological or PCR); tularemia (serological, bacteriological, PCR); viral hemorrhagic fever (serological, virological or PCR); rabies (lab testing of tissue samples); and cholera (erological, bacteriological, PCR). Surveillance information is entered in the YXEMS national electronic reporting system for infectious diseases, overseen by the ministry's Center for Hygiene and Epidemiology. [3]

[1] Republic of Azerbaijan. Ministry of Agriculture. Agrarian Services Agency. "Animal diseases (Heyvan xəstəlikləri)." [http://axa.gov.az/heyvan-xestelikleri] Accessed December 2020

[2] Republic of Azerbaijan. Ministry of Agriculture. Agrarian Services Agency. January 16 2020. "Preventive measures against epizootics have been launched in the regions (Regionlarda epizootiya əleyhinə profilaktik tədbirlərə başlanılıb)." [https://www.agro.gov.az/az/news/beyleqan-ve-lacin-rayonlarinda-epizootiya-eleyhine-profilaktik-tedbirdere-baslanilib] Accessed December 2020

[3] Republic of Azerbaijan. Ministry of Health. August 19 2010. "REGULATIONS FOR SURVEILLANCE AND CONTROL OF ESPECIALLY DANGEROUS INFECTIONS (XÜSUSİ TƏHLÜKƏLİ İNFEKSİYALAR ÜZƏRİNDƏ MÜŞAHİDƏ VƏ NƏZARƏTƏ DAİR QAYDALAR)." [http://health.gov.az/epidemiologiya.html] Accessed 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

Available evidence does not indicate that Azerbaijan has national regulations which include measures for risk identification and reduction for zoonotic disease spillover events from animals to humans.

The health ministry's key policy document relating to zoonoses, the Regulations for Surveillance and Control of Especially Dangerous Infections, published in 2010, does not lay out a specific risk reduction plan or outline pathways for zoonotic

transmission. Instead, it stipulates prophylactic measures to be undertaken during each of three case-assessment stages (suspect, probable and confirmed); these measures include sample collection and laboratory testing for 11 different diseases, including eight zoonoses. The collected data are to be analyzed to assess the key risk factors for the spread of each of these diseases. The zoonotic diseases and corresponding diagnostic tests delineated under this policy are: anthrax (microscopy, PCR), avian influenza (H5N1); brucellosis (laboratory tests (serological, bacteriological, PCR); Y. pestis (plague)--(serological, bacteriological, PCR); tick-borne encephalitis (virological or PCR); tularemia (serological, bacteriological, PCR); viral hemorrhagic fever (serological, virological or PCR); and rabies (lab testing of tissue samples). Surveillance data are entered in the YXEMS national electronic reporting system for infectious diseases, overseen by the ministry's Center for Hygiene and Epidemiology. [1]

Neither the Ministry of Health nor the Ministry of Agriculture provide evidence of a published plan or policy document on zoonoses that contains a specific risk-reduction strategy as opposed to a prophylactic, reactive one. [2, 3]

[1] Republic of Azerbaijan. Ministry of Health. August 19 2010. "REGULATIONS FOR SURVEILLANCE AND CONTROL OF ESPECIALLY DANGEROUS INFECTIONS (XÜSUSİ TƏHLÜKƏLİ İNFEKSIYALAR ÜZƏRİNDƏ MÜŞAHİDƏ VƏ NƏZARƏTƏ DAİR QAYDALAR)." [<http://health.gov.az/epidemiologiya.html>] Accessed December 2020

[2] Republic of Azerbaijan. Ministry of Health. 2020. Website. [<http://health.gov.az/>] Accessed January 2021

[3] Republic of Azerbaijan. Ministry of Agriculture. 2020. Website. [<http://www.agro.gov.az/>] Accessed January 2021

1.2.1c

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

Yes = 1 , No = 0

Current Year Score: 1

Azerbaijan has national regulations that account for the surveillance and control of multiple zoonotic pathogens of public health concern. The health ministry's regulations on surveillance and control of especially dangerous infections, published in 2010, stipulates policy measures (including sample collection and laboratory testing) for 11 different diseases, including eight zoonoses. The zoonotic diseases and corresponding diagnostic tests delineated under this policy are: anthrax (microscopy, PCR), avian influenza (H5N1); brucellosis (laboratory tests (serological, bacteriological, PCR); Y. pestis (plague)--(serological, bacteriological, PCR); tick-borne encephalitis (virological or PCR); tularemia (serological, bacteriological, PCR); viral hemorrhagic fever (serological, virological or PCR); and rabies (lab testing of tissue samples). Surveillance data are entered in the YXEMS national electronic reporting system for infectious diseases, overseen by the ministry's Center for Hygiene and Epidemiology. The regulations mandate analysis of the collected data to assess the key risk factors for the spread of each of these 11 diseases, and stipulate prophylactic measures to be undertaken during each of three case-assessment stages (suspect, probable and confirmed). The pla also lays out epidemic outbreak control and response measures for all of the diseases except avian influenza. [1]

[1] Republic of Azerbaijan. Ministry of Health. August 19 2010. "REGULATIONS FOR SURVEILLANCE AND CONTROL OF ESPECIALLY DANGEROUS INFECTIONS (XÜSUSİ TƏHLÜKƏLİ İNFEKSIYALAR ÜZƏRİNDƏ MÜŞAHİDƏ VƏ NƏZARƏTƏ DAİR QAYDALAR)." [<http://health.gov.az/epidemiologiya.html>] Accessed 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

Available evidence does not indicate that in Azerbaijan there is a government entity dedicated to zoonotic disease that functions across ministries. The Ministry of Health's Regulations on Surveillance and Control of Especially Dangerous Infections, published in 2010, stipulates policy measures for 11 different diseases (eight of which are zoonotic) and designates the ministry's Center for Hygiene and Epidemiology to analyze disease surveillance data entered in the YXEMS national electronic reporting system for infectious diseases. [1] However, the health ministry provides very little information on this entity, and there is no evidence that it functions across ministries. [2]

The Ministry of Agriculture's Agrarian Services Agency also plays a key role in addressing zoonotic and epizootic diseases, operating separate prophylactic strategies for nearly 20 such diseases, including zoonoses such as hoof-and-mouth disease, anthrax and leptospirosis. The agency does not indicate that it functions across ministries. [3]

The government's health agencies and laboratories also engage in comprehensive cooperation with the U.S. government's Cooperative Biological Engagement Program (CBEP). The embedding of CBEP in Azerbaijan has led to the local prioritization of research and surveillance on 18 different so-called especially dangerous pathogens (EDPs), including eight animal diseases (such as Newcastle disease) and four zoonoses (namely; avian influenza, Brucella spp., bacillus anthracis and Coxiella burnetii (Q fever)). Information on the program does not indicate what government department, if any, is in charge of directing this cooperative effort and liaising on it with other government entities.[4]

[1] Republic of Azerbaijan. Ministry of Health. August 19 2010. "REGULATIONS FOR SURVEILLANCE AND CONTROL OF ESPECIALLY DANGEROUS INFECTIONS (XÜSUSİ TƏHLÜKƏLİ İNFEKSIYALAR ÜZƏRİNDƏ MÜŞAHİDƏ VƏ NƏZARƏTƏ DAİR QAYDALAR)." [<http://health.gov.az/epidemiologiya.html>] Accessed December 2020

[2] Republic of Azerbaijan. Ministry of Health. 2020. Website.[<http://health.gov.az/>] Accessed December 2020

[3] Republic of Azerbaijan. Ministry of Agriculture. Agrarian Services Agency. "Animal diseases (Heyvan xəstəlikləri). "Diseases prevented and treated at the expense of the state (Profilaktikası və müalicəsi dövlət vəsaiti hesabına aparılan xəstəliklər)." [<http://axa.gov.az/heyvan-xestelikleri/profilaktikasi-ve-mualicesi-dovlet-vesaiti-hesabina-aparilan-xestelikler>] Accessed December 2020

[4] Saida Aliyeva, Peter Flanagan, April Johnson and Lisa Strelow. 2016. "Toward the Development of a Sustainable Scientific Research Culture in Azerbaijan (2011-2015)". Front. Public Health, 04 July 2016. [<https://www.frontiersin.org/articles/10.3389/fpubh.2016.00144/full>] Accessed 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 insufficient evidence that Azerbaijan has a national mechanism (either voluntary or mandatory) for owners of livestock to conduct and report on disease surveillance to a central government agency.

Among various regulations relating to animal diseases, Cabinet Resolution No. 209 of September 13 2006 mandates persons engaged in animal husbandry to report incidences of disease to the local state veterinary authorities. This act also requires public and private veterinarians to exercise veterinary control, such as by quarantining infected animals. [1] The Ministry of

Health's Regulations on Surveillance and Control of Especially Dangerous Infections, published in 2010, stipulates policy measures for 11 different diseases (eight of which are zoonotic) and designates the ministry's Center for Hygiene and Epidemiology to analyze disease surveillance data entered in the YXEMS national electronic reporting system for infectious diseases. [2] However, the ministry provides little to no detail on the Center or on the YXEMS reporting system. [3]

Animal diseases generally are the remit of the Ministry of Agriculture's Agrarian Services Agency, but this entity's website provides no evidence of a dedicated mechanism for livestock owners or veterinarians to use in order to report cases of disease. [4] Similarly, the Ministry of Agriculture's limited electronic services for veterinary issues pertain to the filing and processing of applications and permits, not the input of surveillance data. [5]

A major role in animal disease surveillance in Azerbaijan is also carried out by the U.S. government through its Cooperative Biological Engagement Program (CBEP). The embedding of CBEP in Azerbaijan has led to the local prioritisation of research and surveillance on 18 different so-called especially dangerous pathogens (EDPs), including eight animal diseases (such as Newcastle disease) and four zoonoses (namely; avian influenza, Brucella spp., bacillus anthracis and Coxiella burnetii (Q fever)). CBEP has been instrumental in creating an Electronic Integrated Disease Surveillance System (EIDSS) in Azerbaijan, which all of the CBEP facilities in Azerbaijan use to enter and then report the laboratory test results for cases of suspected EDPs. However, it is unclear from available evidence how the system is used, if at all, by key stakeholders such as livestock owners. [6]

[1] Republic of Azerbaijan. Cabinet of Ministers. September 13 2006. "On approval of some normative legal acts related to veterinary medicine in the Azerbaijan Republic (Azərbaycan Respublikasında baytarlıqla bağlı bəzi normativ hüquqi aktların təsdiq edilməsi haqqında)." [http://www.e-qanun.az/alpdata/framework/data/12/f_12095.htm] Accessed December 2020
Html text of above law: <http://www.vet.gov.az/az/content/news/186>

[2] Republic of Azerbaijan. Ministry of Health. August 19 2010. "REGULATIONS FOR SURVEILLANCE AND CONTROL OF ESPECIALLY DANGEROUS INFECTIONS (XÜSUSİ TƏHLÜKƏLİ İNFEKSIYALAR ÜZƏRİNDƏ MÜŞAHİDƏ VƏ NƏZARƏT DƏİR QAYDALAR)." [<http://health.gov.az/epidemiologiya.html>] Accessed December 2020

[3] Republic of Azerbaijan. Ministry of Health. 2020. Website.[<http://health.gov.az/>] Accessed December 2020

[4] Republic of Azerbaijan. Ministry of Agriculture. Agrarian Services Agency. "Animal diseases (Heyvan xəstəlikləri). "Diseases prevented and treated at the expense of the state (Profilaktikası və müalicəsi dövlət vəsaiti hesabına aparılan xəstəliklər)." [<http://axa.gov.az/heyvan-xestelikleri/profilaktikasi-ve-mualicesi-dovlet-vesaiti-hesabina-aparilan-xestelikler>] Accessed December 2020

[5] Republic of Azerbaijan. Ministry of Agriculture. Electronic services. "Instructions for Use (İstifadə təlimatları)." [<http://e-xidmet.agro.gov.az/Home/UserInstructions>] Accessed December 2020

[6] Saida Aliyeva, Peter Flanagan, April Johnson and Lisa Strelow. 2016. "Toward the Development of a Sustainable Scientific Research Culture in Azerbaijan (2011-2015)". Front. Public Health, 04 July 2016.

[<https://www.frontiersin.org/articles/10.3389/fpubh.2016.00144/full>] Accessed 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

Available evidence does not indicate that in Azerbaijan there are laws or guidelines that specifically safeguard the confidentiality of information generated through surveillance activities for animals (for owners). Azerbaijan's relevant regulations require owners of livestock to report on animal diseases to a central government agency, but do not address the

issue of protecting the identity of the owner. Among various regulations relating to animal diseases, Cabinet Resolution No. 209 of September 13 2006 mandates persons engaged in animal husbandry to report incidences of disease to the local state veterinary authorities. This act also requires public and private veterinarians to exercise veterinary control, such as by quarantining infected animals. The resolution does not address the issue of confidentiality of data. [1] The Ministry of Health's Regulations on Surveillance and Control of Especially Dangerous Infections, published in 2010, stipulates policy measures for 11 different diseases (eight of which are zoonotic) and designates the ministry's Center for Hygiene and Epidemiology to analyze disease surveillance data entered in the YXEMS national electronic reporting system for infectious diseases. [2] However, the ministry provides little to no detail on the Center or on the YXEMS reporting system. [3]

Animal diseases generally are the remit of the Ministry of Agriculture's Agrarian Services Agency, but this entity's website provides no evidence of a dedicated mechanism for livestock owners or veterinarians to use in order to report cases of disease. [4] The Ministry of Agriculture's limited electronic services for veterinary issues pertain to the filing and processing of applications and permits, not the input of surveillance data. [5]

A major role in animal disease surveillance in Azerbaijan is also carried out by the U.S. government through its Cooperative Biological Engagement Program (CBEP). The embedding of CBEP in Azerbaijan has led to the local prioritisation of research and surveillance on 18 different so-called especially dangerous pathogens (EDPs), including eight animal diseases (such as Newcastle disease) and four zoonoses (namely; avian influenza, Brucella spp., bacillus anthracis and Coxiella burnetii (Q fever)). CBEP has been instrumental in creating an Electronic Integrated Disease Surveillance System (EIDSS) in Azerbaijan, which all of the CBEP facilities in Azerbaijan use to enter and then report the laboratory test results for cases of suspected EDPs. However, it is unclear from available evidence how the system is used, if at all, by key stakeholders such as livestock owners. [6]

Nevertheless, Azerbaijan has several general laws addressing data protection, the most relevant of which were adopted in 2009 and 2010 respectively. [7, 8] The latter of these laws, Law No. 998-IIIQ of May 11, 2010, protects the confidentiality of the data owner, dividing data into confidential and open categories according to the type of access (acquisition). [8] Insofar as this law applies generally, it protects owners of livestock as well, depending on how the authorities categorize the data generated in animal disease surveillance.

[1] Republic of Azerbaijan. Cabinet of Ministers. September 13 2006. "On approval of some normative legal acts related to veterinary medicine in the Azerbaijan Republic (Azərbaycan Respublikasında baytarlıqla bağlı bəzi normativ hüquqi aktların təsdiq edilməsi haqqında)." [http://www.e-qanun.az/alpdata/framework/data/12/f_12095.htm] Accessed December 2020
Html text of above law: <http://www.vet.gov.az/az/content/news/186> [2] Republic of Azerbaijan. Ministry of Health. August 19 2010. "REGULATIONS FOR SURVEILLANCE AND CONTROL OF ESPECIALLY DANGEROUS INFECTIONS (XÜSUSİ TƏHLÜKƏLİ İNFEKSİYALAR ÜZƏRİNDƏ MÜŞAHİDƏ VƏ NƏZARƏTƏ DAİR QAYDALAR)." [<http://health.gov.az/epidemiologiya.html>] Accessed December 2020

[3] Republic of Azerbaijan. Ministry of Health. 2020. Website.[<http://health.gov.az/>] Accessed December 2020

[4] Republic of Azerbaijan. Ministry of Agriculture. Agrarian Services Agency. "Animal diseases (Heyvan xəstəlikləri). "Diseases prevented and treated at the expense of the state (Profilaktikası və müalicəsi dövlət vəsaiti hesabına aparılan xəstəliklər)." [<http://axa.gov.az/heyvan-xestelikleri/profilaktikasi-ve-mualicesi-dovlet-vesaiti-hesabina-aparilan-xestelikler>] Accessed December 2020

[5] Republic of Azerbaijan. Ministry of Agriculture. Electronic services. "Instructions for Use (İstifadə təlimatları)." [<http://e-xidmet.agro.gov.az/Home/UserInstructions>] Accessed December 2020

[6] Saida Aliyeva, Peter Flanagan, April Johnson and Lisa Strelow. 2016. "Toward the Development of a Sustainable Scientific Research Culture in Azerbaijan (2011-2015)". Front. Public Health, 04 July 2016.

[<https://www.frontiersin.org/articles/10.3389/fpubh.2016.00144/full>] Accessed December 2020

[7] World Intellectual Property Organisation (WIPO). Azerbaijan. 2009. "Law of the Republic of Azerbaijan on Legal Protection

of Compilations of Data (as amended up to Law No. 929-IIIQD of December 4, 2009)".

[<https://wipolex.wipo.int/en/text/223022>] Accessed December 2020

[8] Presidency of the Republic of Azerbaijan. May 11 2010. "LAW OF THE AZERBAIJAN REPUBLIC On personal data (AZ?RBAYCAN RESPUBL?KASININ QANUNU F?rdi m?lumatlar haqq?nda)". [<http://cis-legislation.com/document.fwx?rgn=31412>] Accessed 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: 1

Available evidence indicates that Azerbaijan conducts surveillance of zoonotic disease in wildlife (e.g. wild animals, insects, other disease vectors, etc.). The Ministry of Health's Regulations on Surveillance and Control of Especially Dangerous Infections, published in 2010, stipulates policy measures for 11 different diseases (eight of which are zoonotic) and designates the ministry's Center for Hygiene and Epidemiology to analyze disease surveillance data entered in the YXEMS national electronic reporting system for infectious diseases. For one zoonosis in particular--plague--the regulations mandate that "observation in natural sources" be carried out by implementing the following: bacteriological tests of dead wild rodents, collection and examination of fleas carried by wild rodents, and inspection of rodent nests. [1] Furthermore, veterinary regulations recognise wildlife, with Law No. 825 of June 17, 1994 on Veterinary Medicine including wildlife in the categories of animals to be protected. This law also states that hunters must carry out veterinary and sanitary examinations on hunted animals. [2]

In Azerbaijan, policy on animal diseases generally is the remit of the Ministry of Agriculture's Agrarian Services Agency, but this entity's website provides no detail on whether it conducts surveillance of zoonotic disease in wildlife as opposed to livestock. [3]

It should be noted that Azerbaijan's health agencies and laboratories collaborate with the U.S. government's Cooperative Biological Engagement Program (CBEP) on research and surveillance of 18 different so-called especially dangerous pathogens (EDPs), including eight animal diseases (such as Newcastle disease) and four zoonoses (namely; avian influenza, Brucella spp., bacillus anthracis and Coxiella burnetii (Q fever)). But it is unclear if surveillance for these zoonoses is conducted on wild animals. [4]

[1] Republic of Azerbaijan. Ministry of Health. August 19 2010. "REGULATIONS FOR SURVEILLANCE AND CONTROL OF ESPECIALLY DANGEROUS INFECTIONS (XÜSUSİ TƏHLÜKƏLİ İNFEKSIYALAR ÜZƏRİNDƏ MÜŞAHİDƏ VƏ NƏZARƏTƏ DAİR QAYDALAR)". [<http://health.gov.az/epidemiologiya.html>] Accessed December 2020

[2] Ecolx. Legislation. Republic of Azerbaijan. "Law No. 825 on veterinary medicine."

[<https://www.ecolx.org/details/legislation/law-no-825-on-veterinary-medicine-lex-faoc047725/>] Accessed December 2020

[3] Republic of Azerbaijan. Ministry of Agriculture. Agrarian Services Agency. "Animal diseases (Heyvan xəstəlikləri). "Diseases prevented and treated at the expense of the state (Profilaktikası və müalicəsi dövlət vəsaiti hesabına aparılan xəstəliklər)."

[<http://axa.gov.az/heyvan-xestelikleri/profilaktikasi-ve-mualicesi-dovlet-vesaiti-hesabina-aparilan-xestelikler>] Accessed December 2020

[4] Saida Aliyeva, Peter Flanagan, April Johnson and Lisa Strelow. 2016. "Toward the Development of a Sustainable Scientific Research Culture in Azerbaijan (2011-2015)". Front. Public Health, 04 July 2016.

[<https://www.frontiersin.org/articles/10.3389/fpubh.2016.00144/full>] Accessed 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: 1

2019

OIE WAHIS database

1.2.4 Animal health workforce

1.2.4a

Number of veterinarians per 100,000 people

Input number

Current Year Score: 21.01

2019

OIE WAHIS database

1.2.4b

Number of veterinary para-professionals per 100,000 people

Input number

Current Year Score: 7.93

2019

OIE WAHIS database

1.2.5 Private sector and zoonotic

1.2.5a

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

Yes = 1 , No = 0

Current Year Score: 0

Available evidence does not indicate that in Azerbaijan, there is a national plan on zoonotic disease that includes mechanisms for working with the private sector in controlling or responding to zoonoses. The country's closest proxy for an overall policy plan on zoonoses, the Ministry of Health's Regulations on Surveillance and Control of Especially Dangerous Infections, published in 2010, stipulates policy measures for 11 different diseases (eight of which are zoonotic) but it does not discuss a role for the private sector in realizing such policy measures. [1]

In Azerbaijan, policy on animal diseases generally is the remit of the Ministry of Agriculture's Agrarian Services Agency, but this entity's website provides no detail on whether its policy on zoonotic and (epizootic) diseases designates a role for private sector stakeholders. On the contrary, evidence suggests that the agency's policy measures are conducted exclusively by the public sector. [2]

It should be noted that Azerbaijan's health authorities cooperate with the U.S. government's Cooperative Biological Engagement Program (CBEP), part of the Cooperative Threat Reduction (CTR) Program of the U.S. Department of Defense's Defense Threat Reduction Agency (DTRA). Each of the country's "CBEP-enhanced" laboratories is responsible for diagnosing especially dangerous pathogens (EDPs) in their locales. There are 18 such pathogens, classified as human, animal and zoonotic. However, there is little evidence about the CBEP programme's strategies for cooperation with the private sector in combating zoonoses. [3]

Finally, neither the Ministry of Health (which administers the national laboratory system through its Hygiene and Epidemiology Center) nor the national public health institute (ISIM) provide evidence of operating such a mechanism. [4, 5]

[1] Republic of Azerbaijan. Ministry of Health. August 19 2010. "REGULATIONS FOR SURVEILLANCE AND CONTROL OF ESPECIALLY DANGEROUS INFECTIONS (XÜSUSİ TƏHLÜKƏLİ İNFEKSIYALAR ÜZƏRİNDƏ MÜŞAHİDƏ VƏ NƏZARƏT DƏİR QAYDALAR)." [<http://health.gov.az/epidemiologiya.html>] Accessed December 2020

[2] Republic of Azerbaijan. Ministry of Agriculture. Agrarian Services Agency. "Animal diseases (Heyvan xəstəlikləri). "Diseases prevented and treated at the expense of the state (Profilaktikası və müalicəsi dövlət vəsaiti hesabına aparılan xəstəliklər)." [<http://axa.gov.az/heyvan-xestelikleri/profilaktikasi-ve-mualicesi-dovlet-vesaiti-hesabina-aparilan-xestelikler>] Accessed December 2020

[3] Saida Aliyeva, Peter Flanagan, April Johnson and Lisa Strelow. 2016. "Toward the Development of a Sustainable Scientific Research Culture in Azerbaijan (2011-2015)". Front. Public Health, 04 July 2016. [<https://www.frontiersin.org/articles/10.3389/fpubh.2016.00144/full>] Accessed December 2020

[4] Republic of Azerbaijan. Ministry of Health. 2020. "Sanitary-epidemiological service (Sanitariya-epidemioloji xidmət)." [<http://health.gov.az/sanitariya-epidemioloji-xidmet.html>] Accessed December 2020

[5] Republic of Azerbaijan. Ministry of Health. Center for Public Health and Reforms (ISIM). 2020. Website. [<https://isim.az/en/main>] Accessed 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

Publicly available evidence does not indicate that Azerbaijan has in place a public record, updated within the past 5 years, of the facilities in which especially dangerous pathogens and toxins are stored or processed, including details on inventories and inventory management systems of those facilities.

A May 2016 bulletin published by the Republic Hygiene and Epidemiology Centre of the Ministry of Health indicates that a new Central Reference Laboratory--designated as a BSL-3 (biological safety level-3) facility--is under construction at the Ministry's Republic Anti-Plague Station (RAPS). Otherwise, neither the Health, Defence nor Agriculture Ministries provide or describe a public record listing of what is or will be stored at such a facility, nor do they elaborate on the existence of this facility. [2, 3, 4]

The government's health agencies and laboratories also engage in comprehensive cooperation with the U.S. government's Cooperative Biological Engagement Program (CBEP). The embedding of CBEP in Azerbaijan has led to the local prioritization of research and surveillance on 18 different so-called especially dangerous pathogens (EDPs), including eight animal diseases (such as Newcastle disease) and four zoonoses (namely; avian influenza, Brucella spp., bacillus anthracis and Coxiella burnetii (Q fever)). However, there is little to no publicly available information on this program's storage and processing procedures. [5]

Finally, Azerbaijan has submitted 9 annual reports on Confidence-Building Measures under the Biological Weapons Convention; the most recent of these reports dates to 2018. However, access to the reports is restricted, and it is unclear if they contain information on this subject. [6] In addition, the Biological Weapons and Materials legislation database of the Verification Research, Training and Information Centre (VERTIC) lists no laws published by Azerbaijan with direct relevance to the storage and/or processing of dangerous pathogens and materials. [7]

[1] Republic of Azerbaijan. Ministry of Health. May 12 2016. "Epidemiological situation in Azerbaijan is completely under control (Azərbaycanda epidemioloji vəziyyət tamamilə nəzarət altındadır)." [<http://sehiyye.gov.az/main/1278-azrbaycanda-epidemioloji-vziyyt-tamamil-nzart-altndadr.html>] Accessed December 2020

[2] Republic of Azerbaijan. Ministry of Health. 2020. "Sanitary-epidemiological service (Sanitariya-epidemioloji xidmət)." [<http://health.gov.az/sanitariya-epidemioloji-xidmet.html>] Accessed December 2020

[3] Republic of Azerbaijan. Ministry of Defense. 2020. Website. [<https://mod.gov.az/en/>] Accessed December 2020

[4] Republic of Azerbaijan. Ministry of Agriculture. 2020. Website. [<http://www.agro.gov.az/>] Accessed December 2020

[5] Saida Aliyeva, Peter Flanagan, April Johnson and Lisa Strelow. 2016. "Toward the Development of a Sustainable Scientific Research Culture in Azerbaijan (2011-2015)". Front. Public Health, 04 July 2016.

[<https://www.frontiersin.org/articles/10.3389/fpubh.2016.00144/full>] Accessed December 2020

[6] United Nations Office at Geneva (UNOG). Biological Weapons Convention Implementation Support Unit. Azerbaijan "Available Confidence Building Measures Reports." [<https://bwc-ecbm.unog.ch/state/azerbaijan>] Accessed December 2020

[7] Verification Research, Training and Information Centre (VERTIC). Biological Weapons and Materials. BWC Legislation Database. "Azerbaijan." [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/a/>] Accessed December 2020

1.3.1b

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

Yes = 1 , No = 0

Current Year Score: 0

Evidence does not indicate that Azerbaijan has publicly available legislation or regulations related to biosecurity which address requirements such as physical containment, operation practices, failure reporting systems and/or cybersecurity of facilities in which especially dangerous pathogens and toxins are stored or processed.

The Hygiene and Epidemiology Center of the Ministry of Health has indicated the development of a new Central Reference Laboratory-designated as a BSL-3 (biological safety level-3) facility at the Ministry's Republic Anti-Plague Station (RAPS). [1] However, neither the Ministry of Health nor the Ministries of Defense and Agriculture elaborate on the existence of this facility. [2, 3, 4]

Moreover, there is no evidence of publicly available regulations for labs in Azerbaijan developed under the guidance of the U.S. government's Cooperative Biological Engagement Program (CBEP). The CBEP is part of the Cooperative Threat Reduction (CTR) Program of the U.S. Department of Defense's Defense Threat Reduction Agency (DTRA), which has been active in Azerbaijan since 2005. CBEP focuses on research of especially dangerous pathogens (EDPs) of concern to Azerbaijan and the Transcaucasus Region in general, such as Brucella, Bacillus anthracis, Yersinia pestis, Francisella tularensis, avian influenza virus, and Newcastle disease virus. [5] DTRA-CBEP training of lab personnel definitely encompasses biosafety and biosecurity issues although detail is lacking about the training procedures used. [6]

A 2011 guide published by the Ministry of Health on biosafety and biosecurity in laboratories acknowledges the possibility of deliberate misuse of biological materials in such facilities but does not elaborate on specific procedures to prevent such incidents. [7]

Finally, Azerbaijan has submitted 9 annual reports on Confidence-Building Measures under the Biological Weapons Convention; the most recent of these reports dates to 2018. However, access to the reports is restricted, and it is unclear if they contain information on this subject. [8] In addition, the Biological Weapons and Materials legislation database of the Verification Research, Training and Information Centre (VERTIC) lists no laws published by Azerbaijan with direct relevance to the storage and/or processing of dangerous pathogens and materials. [9]

[1] Republic of Azerbaijan. Ministry of Health. May 12 2016. "Epidemiological situation in Azerbaijan is completely under control (Azərbaycanda epidemioloji vəziyyət tamamilə nəzarət altındadır)." [<http://sehiyye.gov.az/main/1278-azrbaycanda-epidemioloji-vziyyet-tamamil-nzart-altndadr.html>] Accessed December 2020

[2] Republic of Azerbaijan. Ministry of Health. 2020. "Sanitary-epidemiological service (Sanitariya-epidemioloji xidmət)." [<http://health.gov.az/sanitariya-epidemioloji-xidmet.html>] Accessed December 2020

[3] Republic of Azerbaijan. Ministry of Defense. 2020. Website. [<https://mod.gov.az/en/>] Accessed December 2020

[4] Republic of Azerbaijan. Ministry of Agriculture. 2020. Website. [<http://www.agro.gov.az/>] Accessed December 2020

[5] Saida Aliyeva, Peter Flanagan, April Johnson and Lisa Strelow. 2016. "Toward the Development of a Sustainable Scientific Research Culture in Azerbaijan (2011-2015)". Front. Public Health, 04 July 2016.

[<https://www.frontiersin.org/articles/10.3389/fpubh.2016.00144/full>] Accessed December 2020

[6] United States Embassy in Azerbaijan. "Defense Threat Reduction Office (DTRO)."

[<https://az.usembassy.gov/embassy/baku/sections-offices/defense-threat-reduction-office-dtro/>] Accessed December 2020

[7] Republic of Azerbaijan. Ministry of Health. 2011. "RULES OF BIOLOGICAL SAFETY IN LABORATORIES (LABORATORİYALARDA BİOLOJİ TƏHLÜKƏSİZLİK QAYDALARI)". [<http://health.gov.az/files/pdf/tehlukesizlik-qaydalari-MoH.pdf>] Accessed December 2020

[8] United Nations Office at Geneva (UNOG). Biological Weapons Convention Implementation Support Unit. Azerbaijan "Available Confidence Building Measures Reports." [<https://bwc-ecbm.unog.ch/state/azerbaijan>] Accessed December 2020

[9] Verification Research, Training and Information Centre (VERTIC). Biological Weapons and Materials. BWC Legislation Database. "Azerbaijan." [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/a/>] Accessed December 2020

1.3.1c

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

Yes = 1 , No = 0

Current Year Score: 0

Available evidence does not indicate that Azerbaijan has a dedicated agency to enforce biosecurity legislation and regulations. It should be noted that the Azeri language does not distinguish between biosafety and biosecurity, using the term *bioloji təhlükəsizlik* for both concepts. Many official regulations relate to biosafety and the control of GMOs rather than to biosecurity. [1, 2] Especially dangerous pathogens (EDPs) are managed by the central Republic Hygiene and Epidemiology Centre (RAPS) with regard to human diseases; for animal and zoonotic diseases the central Republic Veterinary Laboratory (RVL) of the State Veterinary Service of the Ministry of Agriculture is in charge. [3, 4] Otherwise, these ministries do not provide evidence of administering a biosecurity policy and neither does the Ministry of Defense. [5, 6]

However, these three ministries definitely cooperate with the Cooperative Threat Reduction (CTR) Program of the U.S. Department of Defense's Defense Threat Reduction Agency (DTRA), which has been active in Azerbaijan since 2005. [4] In particular, the agriculture and health ministries' laboratory systems are deeply involved with the DTRA's Cooperative Biological Engagement Program (CBEP), which has "enhanced" many of the domestic laboratories' abilities to research especially dangerous pathogens (EDPs) of concern to Azerbaijan and the Transcaucasus Region in general, such as *Brucella*, *Bacillus anthracis*, *Yersinia pestis*, *Francisella tularensis*, avian influenza virus, and Newcastle disease virus. In that regard, formalised protocols on biosecurity likely exist for these "CBEP-enhanced" labs. [4]

Finally, Azerbaijan has submitted 9 annual reports on Confidence-Building Measures under the Biological Weapons Convention; the most recent of these reports dates to 2018. However, access to the reports is restricted, and it is unclear if they contain information on this subject. [7] In addition, the Biological Weapons and Materials legislation database of the Verification Research, Training and Information Centre (VERTIC) lists no laws published by Azerbaijan with direct relevance to biosecurity. [8]

[1] Biosafety Clearing-House. Country Profiles. "Azerbaijan: Competent National Authority".

[<https://bch.cbd.int/database/record.shtml?documentid=11465>] Accessed December 2020

[2] Republic of Azerbaijan. Ministry of Health. 2020. "Laws (Qanunlar)." [<http://health.gov.az/qanunlar.html>] Accessed December 2020

[3] Republic of Azerbaijan. Ministry of Health. May 12 2016. "Epidemiological situation in Azerbaijan is completely under control (Azərbaycanda epidemioloji vəziyyət tamamilə nəzarət altındadır)." [<http://sehiyye.gov.az/main/1278-azrbaycanda-epidemioloji-vziyyt-tamamil-nzart-altndadr.html>] Accessed December 2020

[4] Saida Aliyeva, Peter Flanagan, April Johnson and Lisa Strelow. 2016. "Toward the Development of a Sustainable Scientific Research Culture in Azerbaijan (2011-2015)". *Front. Public Health*, 04 July 2016.

[<https://www.frontiersin.org/articles/10.3389/fpubh.2016.00144/full>] Accessed December 2020

[5] Republic of Azerbaijan. Ministry of Agriculture. 2020. Website. [<http://www.agro.gov.az/>] Accessed December 2020

[6] Republic of Azerbaijan. Ministry of Defense. 2020. Website. [<https://mod.gov.az/en/>] Accessed December 2020

[7] United Nations Office at Geneva (UNOG). Biological Weapons Convention Implementation Support Unit. Azerbaijan "Available Confidence Building Measures Reports." [<https://bwc-ecbm.unog.ch/state/azerbaijan>] Accessed December 2020

[8] Verification Research, Training and Information Centre (VERTIC). Biological Weapons and Materials. BWC Legislation Database. "Azerbaijan." [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/a/>] Accessed December 2020

1.3.1d

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

Yes = 1 , No = 0

Current Year Score: 0

Public evidence does not indicate that Azerbaijan maintains inventories of especially dangerous pathogens (EDPs) and toxins. Evidence indicates that a new Central Reference Laboratory--designated as a BSL-3 (biological safety level-3) facility--has been in development at the Ministry of Health's Republic Anti-Plague Station (RAPS) since 2016. [1, 2] However, neither the Ministry of Health nor the Ministries of Defence and Agriculture elaborate on the existence of this facility [3, 4, 5]

Nevertheless, certain laboratories in Azerbaijan clearly have the capacity to research EDPs, namely, those laboratories that have been "enhanced" by the U.S. government's Cooperative Biological Engagement Program (CBEP). The CBEP is part of the Cooperative Threat Reduction (CTR) Program of the U.S. Department of Defense's Defense Threat Reduction Agency (DTRA), which has been active in Azerbaijan since 2005. In Azerbaijan, CBEP focuses on research on EDPs such as Brucella, Bacillus anthracis, Yersinia pestis, Francisella tularensis, avian influenza virus, and Newcastle disease virus. Some of these research projects have been carried out with the participation of the United States Army Medical Research Institute for Infectious Diseases, Louisiana State University and the University of Florida. [2] It is unclear from the evidence if Azerbaijan actually maintains an inventory of EDPs for such research purposes.

Finally, Azerbaijan has submitted 9 annual reports on Confidence-Building Measures under the Biological Weapons Convention; the most recent of these reports dates to 2018. However, access to the reports is restricted, and it is unclear if they contain information on this subject. [6] In addition, the Biological Weapons and Materials legislation database of the Verification Research, Training and Information Centre (VERTIC) lists no laws published by Azerbaijan with direct relevance to biosecurity. [7]

[1] Republic of Azerbaijan. Ministry of Health. May 12 2016. "Epidemiological situation in Azerbaijan is completely under control (Azərbaycanda epidemioloji vəziyyət tamamilə nəzarət altındadır)." [<http://sehiyye.gov.az/main/1278-azrbaycanda-epidemioloji-vziyyt-tamamil-nzart-altndadr.html>] Accessed December 2020

[2] Saida Aliyeva, Peter Flanagan, April Johnson and Lisa Strelow. 2016. "Toward the Development of a Sustainable Scientific Research Culture in Azerbaijan (2011-2015)". Front. Public Health, 04 July 2016.

[<https://www.frontiersin.org/articles/10.3389/fpubh.2016.00144/full>] Accessed December 2020

[3] Republic of Azerbaijan. Ministry of Health. 2020. Website. [<http://health.gov.az/>] Accessed December 2020

[4] Republic of Azerbaijan. Ministry of Agriculture. 2020. Website. [<http://www.agro.gov.az/>] Accessed December 2020

[5] Republic of Azerbaijan. Ministry of Defense. 2020. Website. [<https://mod.gov.az/en/>] Accessed December 2020

[6] United Nations Office at Geneva (UNOG). Biological Weapons Convention Implementation Support Unit. Azerbaijan "Available Confidence Building Measures Reports." [<https://bwc-ecbm.unog.ch/state/azerbaijan>] Accessed December 2020

[7] Verification Research, Training and Information Centre (VERTIC). Biological Weapons and Materials. BWC Legislation Database. "Azerbaijan." [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/a/>] Accessed December 2020

1.3.1e

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

Yes = 1 , No = 0

Current Year Score: 1

There is public evidence that Azerbaijan has the capacity to conduct Polymerase Chain Reaction (PCR)-based diagnostic testing for anthrax, but the data is insufficient regarding Ebola.

A May 2016 bulletin published by the Republic Hygiene and Epidemiology Centre of the Ministry of Health stated that the Republic Anti-Plague Station (RAPS), a department of the Ministry of Health, combats infectious diseases such as "tuberculosis, tularaemia, gonorrhoea, brucellosis, bird flu, swine flu, Ebola and other infections." It also indicates that laboratories of the regional Hygiene and Epidemiological Centres carry out the diagnosis of a number of hazardous diseases "...by applying modern methods, including serological and chain polymerase reaction techniques..." in accordance with international biosafety regulations. [1] The bulletin adds that a new Central Reference Laboratory is under construction at the RAPS. This laboratory will be a BSL-3 (biological safety level-3) facility, where "...even gene-based testing will be possible." [1] Further evidence indicates the availability of PCR testing--for salmonella, brucellosis and many other diseases--at the EuroMed medical center in Baku. [2]

Finally, the health ministry's regulations on surveillance and control of especially dangerous infections, published in 2010, stipulates policy measures (such as sample collection and laboratory testing) for 11 different diseases, including anthrax, for which the regulations mandate lab microscopy and PCR testing. These regulations mention Ebola but do not lay out diagnostic testing procedures for it. [3]

[1] Republic of Azerbaijan. Ministry of Health. May 12 2016. "Epidemiological situation in Azerbaijan is completely under control (Azərbaycanda epidemioloji vəziyyət tamamilə nəzarət altındadır)." [<http://sehiyye.gov.az/main/1278-azrbaycanda-epidemioloji-vziyyet-tamamil-nzart-altndadr.html>] Accessed December 2020

[2] Euromed Medical Center. "PCR (POLYMERASE CHAIN REACTION) (PZR (POLİMERAZ ZƏNCİRVARİ REAKSİYƏ))." [[http://euromed.az/az-l-pzr-\(polimeraz-zencirvari-reaksiya\).html](http://euromed.az/az-l-pzr-(polimeraz-zencirvari-reaksiya).html)] Accessed December 2020

[3] Republic of Azerbaijan. Ministry of Health. August 19 2010. "REGULATIONS FOR SURVEILLANCE AND CONTROL OF ESPECIALLY DANGEROUS INFECTIONS (XÜSUSİ TƏHLÜKƏLİ İNFEKSİYALAR ÜZƏRİNDƏ MÜŞAHİDƏ VƏ NƏZARƏTƏ DAİR QAYDALAR)." [<http://health.gov.az/epidemiologiya.html>] Accessed 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 train-the-trainer program, for personnel working in facilities housing or working with especially dangerous pathogens, toxins, or biological materials with pandemic potential?

Yes = 1, No = 0

Current Year Score: 1

There is evidence that Azerbaijan requires biosecurity training, using a standardised, required approach, for personnel working in facilities housing or working with especially dangerous pathogens, toxins, or biological materials with pandemic potential.

Such standardised training derives from support provided by the U.S. Cooperative Biological Engagement Program (CBEP) of the U.S Defense Threat Reduction Agency (DTRA), active in Azerbaijan since 2005. CBEP laboratory training is a comprehensive program conducted at the basic through advanced levels and focuses on laboratory diagnostics methods such as bacteriology, serology, PCR and also on biosecurity and biosafety (BS&S). Trainees are subject to evaluation by CBEP. The training aims to enhance the abilities of personnel to perform laboratory testing of samples in accordance with national diagnostic algorithms, and report results through the national electronic data reporting system to the government's central reference laboratory system. [1, 2]

Although the Azeri language does not distinguish between biosafety and biosecurity, an official guide published in 2011 by the Ministry of Health on Biosafety/Biosecurity in laboratories does account for the possibility of having to protect against deliberate or criminal acts. The guide also lays out a general training protocol for personnel dealing with biological materials, but does not indicate any specific procedures to be used to respond to incidents arising from the deliberate misuse of such materials. [3]

[1] Saida Aliyeva, Peter Flanagan, April Johnson and Lisa Strelow. 2016. "Toward the Development of a Sustainable Scientific Research Culture in Azerbaijan (2011-2015)". *Front. Public Health*, 04 July 2016.

[<https://www.frontiersin.org/articles/10.3389/fpubh.2016.00144/full>] Accessed December 2020

[2] United States Department of Defense. Cooperative Threat Reduction (CTR) Program. Cooperative Biological Engagement Program (CBEP). 2016. "Cooperative Biological Engagement Program Annual Accomplishments FY 2015."

[<https://www.dtra.mil/Portals/61/Documents/Missions/CBEP%20FY15%20Annual%20Accomplishments.pdf?ver=2016-09-16-150152-690>] Accessed January 2021

[3] Republic of Azerbaijan. Ministry of Health. 2011. "RULES OF BIOLOGICAL SAFETY IN LABORATORIES (LABORATORİYALARDA BİOLOJİ TƏHLÜKƏSİZLİK QAYDALARI)". [<http://health.gov.az/files/pdf/tehlukesizlik-qaydalari-MoH.pdf>] Accessed December 2020

1.3.3 Personnel vetting: regulating access to sensitive locations

1.3.3a

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

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

Current Year Score: 0

Public evidence does not indicate that regulations or licensing conditions in Azerbaijan 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.

Evidence does indicate that Azerbaijan has developed the capacity to research especially dangerous pathogens (EDPs) and toxins. In that regard, a new Central Reference Laboratory--designated as a BSL-3 (biological safety level-3) facility--has been in development at the Ministry of Health's Republic Anti-Plague Station (RAPS) since 2016. [1, 2] However, neither the Ministry of Health nor the Ministries of Defense and Agriculture elaborate on the existence of this facility [3, 4, 5]

That said, certain laboratories in Azerbaijan have the capacity to research EDPs, namely, those laboratories that have been "enhanced" through participation in the U.S. government's Cooperative Biological Engagement Program (CBEP). In Azerbaijan, CBEP focuses on research on EDPs such as *Brucella*, *Bacillus anthracis*, *Yersinia pestis*, *Francisella tularensis*, avian influenza virus, and Newcastle disease virus. Some of these research projects have been carried out with the participation of the United States Army Medical Research Institute for Infectious Diseases, Louisiana State University and the University of Florida. But public information on the official checks used on personnel employed in these facilities is not readily available.[2]

Official guidance published in 2011 by the Ministry of Health on biosafety/biosecurity in the nation's laboratories addresses all four biosafety/biosecurity levels for biological agents but does not elaborate on the types of checks that personnel might be subject to. For example, the guide states that all staff working in an isolated BSL-3 laboratory "are obliged to undergo a

medical examination", but does not provide detail on this. [6]

Finally, Azerbaijan has submitted 9 annual reports on Confidence-Building Measures under the Biological Weapons Convention; the most recent of these reports dates to 2018. However, access to the reports is restricted, and it is unclear if they contain information on this subject. [7] In addition, the Biological Weapons and Materials legislation database of the Verification Research, Training and Information Centre (VERTIC) lists no laws published by Azerbaijan with direct relevance to the screening of security and other personnel having access to especially dangerous pathogens and materials. [8]

- [1] Republic of Azerbaijan. Ministry of Health. May 12 2016. "Epidemiological situation in Azerbaijan is completely under control (Azərbaycanda epidemioloji vəziyyət tamamilə nəzarət altındadır)." [<http://sehiyye.gov.az/main/1278-azrbaycanda-epidemioloji-vziyyt-tamamil-nzart-altndadr.html>] Accessed December 2020
- [2] Saida Aliyeva, Peter Flanagan, April Johnson and Lisa Strelow. 2016. "Toward the Development of a Sustainable Scientific Research Culture in Azerbaijan (2011-2015)". *Front. Public Health*, 04 July 2016. [<https://www.frontiersin.org/articles/10.3389/fpubh.2016.00144/full>] Accessed December 2020
- [3] Republic of Azerbaijan. Ministry of Health. 2020. Website. [<http://health.gov.az/>] Accessed December 2020
- [4] Republic of Azerbaijan. Ministry of Agriculture. 2020. Website. [<http://www.agro.gov.az/>] Accessed December 2020
- [5] Republic of Azerbaijan. Ministry of Defense. 2020. Website. [<https://mod.gov.az/en/>] Accessed December 2020
- [6] Republic of Azerbaijan. Ministry of Health. 2011. "RULES OF BIOLOGICAL SAFETY IN LABORATORIES (LABORATORİYALARDA BİOLOJİ TƏHLÜKƏSİZLİK QAYDALARI)". [<http://health.gov.az/files/pdf/tehlukesizlik-qaydalari-MoH.pdf>] Accessed December 2020
- [7] United Nations Office at Geneva (UNOG). Biological Weapons Convention Implementation Support Unit. Azerbaijan "Available Confidence Building Measures Reports." [<https://bwc-ecbm.unog.ch/state/azerbaijan>] Accessed December 2020
- [8] Verification Research, Training and Information Centre (VERTIC). Biological Weapons and Materials. BWC Legislation Database. "Azerbaijan." [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/a/>] Accessed December 2020

1.3.4 Transportation security

1.3.4a

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

Yes = 1, No = 0

Current Year Score: 0

Azerbaijan's publicly available national regulations on the safe and secure transport of infectious substances do not specifically define such substances as belonging to the International Air Transport Association's (IATA) Categories A and B.

Four separate, parallel regulations exist on the transport of dangerous substances, each counting infectious diseases among such substances, and each referring to a different mode of transport: road, sea, air and rail. These agreements appear to be inspired by the several European Agreements concerning the International Carriage of Dangerous Goods--also referring to different modes of transport, These Azerbaijani regulations do not, however, define these substances or transport methods with reference to the IATA's Categories A and B. [1, 2, 3, 4]

That said, there is evidence that international rules on the transport of such substances are complied with in certain specific contexts, enforced by specific laws. For example, the Ministry of Health's guidance of biosafety/biosecurity in laboratories, published in 2011, recommends that rules for transporting these types of substances should be made and enforced

according to rules set by the United Nations Committee of Experts on the Transport of Dangerous Goods, the International Civil Aviation Organization (ICAO), the several European Agreements concerning the International Carriage of Dangerous Goods, and the rules of the IATA. [5]

Finally, Azerbaijan has submitted 9 annual reports on Confidence-Building Measures under the Biological Weapons Convention; the most recent of these reports dates to 2018. However, access to the reports is restricted, and it is unclear if they contain information on this subject. [6] In addition, the Biological Weapons and Materials legislation database of the Verification Research, Training and Information Centre (VERTIC) lists no laws published by Azerbaijan with direct relevance to the transport of infectious substances. [7]

[1] Republic of Azerbaijan. Cabinet of Ministers. April 24 2000. "Transportation of dangerous goods by sea transport: On Approval of Rules (Təhlükəli yüklərin dəniz nəqliyyatı ilə daşınması Qaydalarının təsdiq edilməsi haqqında)." [<http://www.e-qanun.az/framework/239>] Accessed December 2020

[2] Republic of Azerbaijan. Cabinet of Ministers. December 13, 2000. "Cabinet of Ministers of the Republic of Azerbaijan: Transportation of hazardous goods by air transport: On Approval of Rules (Təhlükəli yüklərin hava nəqliyyatı ilə daşınması Qaydalarının təsdiq edilməsi haqqında)." [<http://www.e-qanun.az/framework/217>] Accessed December 2020

[3] Republic of Azerbaijan. Cabinet of Ministers. September 27 1999. "On Approval of Rules for Transportation of Dangerous Goods by Rail Transport (Təhlükəli yüklərin dəmir yolu nəqliyyatı ilə daşınması Qaydalarının təsdiq edilməsi haqqında)." [<https://ady.az/uploads/346ba-2-t-hlu-k-li-yu-kl-rin-dy-n-qliyyati-il-das-inmasi-qaydalarinin-t-sdiq-edilm-si-haqqinda-nk-q-rari.pdf>] Accessed December 2020

[4] Republic of Azerbaijan. Cabinet of Ministers. September 27 1999. "On Approval of Rules for Transportation of Dangerous Goods by Road Transport Təhlükəli yüklərin avtomobil nəqliyyatı ilə daşınması Qaydalarının təsdiq edilməsi haqqında)." [http://www.e-qanun.az/alpdata/framework/data/0/f_317.htm] Accessed December 2020

[5] Republic of Azerbaijan. Ministry of Health. 2011. "RULES OF BIOLOGICAL SAFETY IN LABORATORIES (LABORATORİYALARDA BİOLOJİ TƏHLÜKƏSİZLİK QAYDALARI)". [<http://health.gov.az/files/pdf/tehlukesizlik-qaydalari-MoH.pdf>] Accessed December 2020

[6] United Nations Office at Geneva (UNOG). Biological Weapons Convention Implementation Support Unit. Azerbaijan "Available Confidence Building Measures Reports." [<https://bwc-ecbm.unog.ch/state/azerbaijan>] Accessed December 2020

[7] Verification Research, Training and Information Centre (VERTIC). Biological Weapons and Materials. BWC Legislation Database. "Azerbaijan." [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/a/>] Accessed December 2020

1.3.5 Cross-border transfer and end-user screening

1.3.5a

Is there legislation and/or regulations in place to oversee the cross-border transfer and end-user screening of especially dangerous pathogens, toxins, and pathogens with pandemic potential?

Yes = 1 , No = 0

Current Year Score: 0

There is insufficient evidence that Azerbaijan has specific 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.

Four separate, parallel regulations exist on the transport of dangerous substances, each counting infectious diseases among such substances, and each referring to a different mode of transport: road, sea, air and rail. These agreements appear to be inspired by the several European Agreements concerning the International Carriage of Dangerous Goods--also referring to

different modes of transport, These Azerbaijani regulations do not, however, define these substances or transport methods with reference to the IATA's Categories A and B. Moreover, end-user screening is not discussed. [1, 2, 3, 4] Another ruling, Decision No 167 of July 2008, deals specifically with the cross-border transport of dangerous waste, but it does not define hazardous waste and fails to discuss end-user screening. [5]

That said, there is evidence that international rules on the cross-border transfer and end-user screening of such substances are complied with in certain specific contexts, though such guidance is prescriptive rather than mandatory. For example, the Ministry of Health's guidance of biosafety/biosecurity in laboratories, published in 2011, recommends that rules for transporting these types of substances should be made and enforced according to rules set by the United Nations Committee of Experts on the Transport of Dangerous Goods, the International Civil Aviation Organization (ICAO), the several European Agreements concerning the International Carriage of Dangerous Goods, and the rules of the International Air Transport Association (IATA). [6]

Finally, Azerbaijan has submitted 9 annual reports on Confidence-Building Measures under the Biological Weapons Convention; the most recent of these reports dates to 2018. However, access to the reports is restricted, and it is unclear if they contain information on this subject. [7] In addition, the Biological Weapons and Materials legislation database of the Verification Research, Training and Information Centre (VERTIC) lists no laws published by Azerbaijan with direct relevance to the transport of infectious substances. [8]

[1] Republic of Azerbaijan. Cabinet of Ministers. April 24 2000. "Transportation of dangerous goods by sea transport: On Approval of Rules (Təhlükəli yüklərin dəniz nəqliyyatı ilə daşınması Qaydalarının təsdiq edilməsi haqqında)." [<http://www.e-qanun.az/framework/239>] Accessed December 2020

[2] Republic of Azerbaijan. Cabinet of Ministers. December 13, 2000. "Cabinet of Ministers of the Republic of Azerbaijan: Transportation of hazardous goods by air transport: On Approval of Rules (Təhlükəli yüklərin hava nəqliyyatı ilə daşınması Qaydalarının təsdiq edilməsi haqqında)." [<http://www.e-qanun.az/framework/217>] Accessed December 2020

[3] Republic of Azerbaijan. Cabinet of Ministers. September 27 1999. "On Approval of Rules for Transportation of Dangerous Goods by Rail Transport (Təhlükəli yüklərin dəmir yolu nəqliyyatı ilə daşınması Qaydalarının təsdiq edilməsi haqqında)." [<https://ady.az/uploads/346ba-2-t-hlu-k-li-yu-kl-rin-dy-n-qlyiyati-il-das-inmasi-qaydalarinin-t-sdiq-edilm-si-haqqinda-nk-q-rari.pdf>] Accessed December 2020

[4] Republic of Azerbaijan. Cabinet of Ministers. September 27 1999. "On Approval of Rules for Transportation of Dangerous Goods by Road Transport (Təhlükəli yüklərin avtomobil nəqliyyatı ilə daşınması Qaydalarının təsdiq edilməsi haqqında)." [http://www.e-qanun.az/alpdata/framework/data/0/f_317.htm] Accessed December 2020

[5] Republic of Azerbaijan. Cabinet of Ministers. July 25 2008. "On Approval of Rules for Cross-border Transportation of Hazardous Waste (Təhlükəli tullantıların sərhədlərarası daşınması Qaydası'nın təsdiq edilməsi haqqında)." [<http://www.e-qanun.az/framework/15276>] Accessed December 2020

[6] Republic of Azerbaijan. Ministry of Health. 2011. "RULES OF BIOLOGICAL SAFETY IN LABORATORIES (LABORATORİYALARDA BİOLOJİ TƏHLÜKƏSİZLİK QAYDALARI)." [<http://health.gov.az/files/pdf/tehlukesizlik-qaydalari-MoH.pdf>] Accessed December 2020

[7] United Nations Office at Geneva (UNOG). Biological Weapons Convention Implementation Support Unit. Azerbaijan "Available Confidence Building Measures Reports." [<https://bwc-ecbm.unog.ch/state/azerbaijan>] Accessed December 2020

[8] Verification Research, Training and Information Centre (VERTIC). Biological Weapons and Materials. BWC Legislation Database. "Azerbaijan." [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/a/>] Accessed December 2020

1.4 BIOSAFETY

1.4.1 Whole-of-government biosafety systems

1.4.1a

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

Yes = 1, No = 0

Current Year Score: 1

Available evidence suggests that Azerbaijan has national regulations in place that collectively mandate adherence to biosafety protocols applying to infectious substances as well as to genetically modified organisms (GMOs).

While a scan of laws published by the Ministry of Health indicates no specific stand-alone document on biosafety, [1] several laws, rules and regulations address the subject and provide stipulated procedures in regard to it. For example, in discussing procedures for the transport of infectious samples, the ministry's Regulations for the Surveillance and Control of Especially Dangerous Infections (published in 2010) mandates adherence to procedures laid out in the ministry's own Rules of Biological Safety in Laboratories (last published in 2011). [2]

The latter document stipulates specific procedures for facilities and personnel handling biological materials, to be overseen by an on-site biosafety council composed of key stakeholders and granted executive responsibilities. In its eight parts, the document discusses: codes of practice and standards of laboratory design and equipment for each of the four levels of biosafety (BSL-1, 2, 3 and 4); concepts of laboratory biosafety; laboratory equipment and safety; proper methods of working with microbiological materials (including transportation); recombinant DNA technology and safety; chemical, fire and electrical safety; standards for organizing safe work procedures and training staff; and safety/security inspection issues. [3]

It should be noted that the Azeri language does not distinguish between biosafety and biosecurity, using the term *bioloji təhlükəsizlik* for both concepts.

Finally, it should be noted that Azerbaijan engages in epidemiological surveillance of dangerous pathogens; such activity encompasses both biosecurity and biosafety (BS&S). For example, since 2005 the U.S. Cooperative Biological Engagement Program (CBEP) of the U.S Defense Threat Reduction Agency (DTRA) has been providing training in Azerbaijan's laboratories, in diagnostics as well as in BS&S risk assessment and management. [4] Extensive epidemiological surveillance of animal diseases, including zoonoses, is also conducted by Azerbaijan's food safety management system, run by the Food Safety Agency of the Republic of Azerbaijan in concert with the Central Veterinary Laboratory and other government agencies. Diagnosis is carried out in BSL-2 and -3 laboratories and the collected data are reported through the national Electronic Integrated Infectious Disease Surveillance System (EIDSS). [5]

[1] Republic of Azerbaijan. Ministry of Health. 2020. "Laws (Qanunlar)." [<http://health.gov.az/qanunlar.html>] Accessed December 2020 and January 2021

[2] Republic of Azerbaijan. Ministry of Health. August 19 2010. "REGULATIONS FOR SURVEILLANCE AND CONTROL OF ESPECIALLY DANGEROUS INFECTIONS (XÜSUSİ TƏHLÜKƏLİ İNFEKSIYALAR ÜZƏRİNDƏ MÜŞAHİDƏ VƏ NƏZARƏT DƏİR QAYDALAR)." [<http://health.gov.az/epidemiologiya.html>] Accessed December 2020 and January 2021

[3] Republic of Azerbaijan. Ministry of Health. 2011. "RULES OF BIOLOGICAL SAFETY IN LABORATORIES (LABORATORİYALARDA BİOLOJİ TƏHLÜKƏSİZLİK QAYDALARI)." [<http://health.gov.az/files/pdf/tehlukesizlik-qaydalari-MoH.pdf>] Accessed December 2020 and January 2021

[4] Saida Aliyeva, Peter Flanagan, April Johnson and Lisa Strelow. 2016. "Toward the Development of a Sustainable Scientific

Research Culture in Azerbaijan (2011-2015)". *Front. Public Health*, 04 July 2016.

[<https://www.frontiersin.org/articles/10.3389/fpubh.2016.00144/full>] Accessed December 2020 and January 2021

[5] World Organization for Animal Health (OIE). "Animal health control system in Azerbaijan." 2020. [https://rr-europe.oie.int/wp-content/uploads/2020/03/3_animal-disease-control-situation-in-azerbaijan_ahs_2020.pdf] Accessed December 2020 and January 2021

1.4.1b

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

Yes = 1 , No = 0

Current Year Score: 0

Available evidence does not indicate that Azerbaijan has a dedicated agency for the enforcement of biosafety legislation and regulations. Instead, a number of different entities enforce rules on biosafety that are specific to the context. One is the Ministry of Ecology and Natural Resources, which is designated as the Competent National Authority to implement the Cartagena Protocol on Biosafety, to which Azerbaijan is a party. [1] Other actors in regulating biosafety are the Food Safety Agency of the Republic of Azerbaijan, the Central Veterinary Laboratory and Zone Laboratories of the Azerbaijan Institute of Food Safety, and the Agrarian Services Agency under the Ministry of Agriculture, which in concert conduct extensive epidemiological surveillance of animal diseases, including zoonoses such as brucellosis and foot-and-mouth disease. [2]

Similarly, the Ministry of Health regulates biosafety in certain contexts, specifically, in the surveillance and control of dangerous infections, for which it mandates adherence to its own procedures on biosafety/biosecurity in laboratories. [3] The ministry's own Rules of Biological Safety in Laboratories (last published in 2011) stipulates specific procedures for facilities and personnel handling biological materials, to be overseen by an on-site biosafety council composed of key stakeholders and granted executive responsibilities. [4]

Through their BSL-2 laboratories, the Ministry of Health, State Veterinary Control Service (SVCS) under the Ministry of Agriculture, and Ministry of Defense have been key participants in the U.S. Cooperative Biological Engagement Program (CBEP) of the U.S Defense Threat Reduction Agency (DTRA), which has been active in Azerbaijan since 2005, providing comprehensive training in laboratory diagnostics methods such as bacteriology, serology, PCR and also on biosecurity and biosafety (BS&S) risk assessment and management. [5]

Many of the laws in Azerbaijan that address the concept of biosafety apply to the control of GMOs. The key law in this context is Law 273 of 2011, which regulates the protection and sustainable utilisation of crops. Azerbaijan does not produce GM food or feed for purposes other than research, and is in the process of developing a regulatory framework to conduct safety assessments of GM food. [6] Moreover, neither the Ministry of Agriculture nor the Ministry of Health's Centre for Public Health and Reforms (ISIM—the national public health institute) indicate the existence of laws mandating biosafety measures specifically in contexts other than those relating to GMOs. [7, 8]

It should be noted that the Azeri language does not distinguish between biosafety and biosecurity, using the term *bioloji təhlükəsizlik* for both concepts.

Finally, Azerbaijan has submitted 9 annual reports on Confidence-Building Measures under the Biological Weapons Convention; the most recent of these reports dates to 2018. However, access to the reports is restricted, and it is unclear if they contain information on this subject. [9] In addition, the Biological Weapons and Materials legislation database of the Verification Research, Training and Information Centre (VERTIC) lists no laws published by Azerbaijan with direct relevance to

biosafety. [10]

- [1] Biosafety Clearing-House. Country Profiles. "Azerbaijan: Competent National Authority". [https://bch.cbd.int/database/record.shtml?documentid=11465] Accessed December 2020 and January 2021
- [2] World Organization for Animal Health (OIE). "Animal health control system in Azerbaijan." 2020. [https://rr-europe.oie.int/wp-content/uploads/2020/03/3_animal-disease-control-situation-in-azerbaijan_ahs_2020.pdf] Accessed December 2020 and January 2021
- [3] Republic of Azerbaijan. Ministry of Health. August 19 2010. "REGULATIONS FOR SURVEILLANCE AND CONTROL OF ESPECIALLY DANGEROUS INFECTIONS (XÜSUSİ TƏHLÜKƏLİ İNFEKSİYALAR ÜZƏRİNDƏ MÜŞAHİDƏ VƏ NƏZARƏTƏ DAİR QAYDALAR)." [http://health.gov.az/epidemiologiya.html] Accessed December 2020 and January 2021
- [4] Republic of Azerbaijan. Ministry of Health. 2011. "RULES OF BIOLOGICAL SAFETY IN LABORATORIES (LABORATORİYALARDA BİOLOJİ TƏHLÜKƏSİZLİK QAYDALARI)." [http://health.gov.az/files/pdf/tehlukeszlik-qaydalari-MoH.pdf] Accessed December 2020 and January 2021
- [5] Saida Aliyeva, Peter Flanagan, April Johnson and Lisa Strelow. 2016. "Toward the Development of a Sustainable Scientific Research Culture in Azerbaijan (2011-2015)". Front. Public Health, 04 July 2016. [https://www.frontiersin.org/articles/10.3389/fpubh.2016.00144/full] Accessed December 2020 and January 2021
- [6] Food and Agriculture Organization of the United Nations (FAO). FAO GM Foods Platform. Azerbaijan. [http://www.fao.org/food/food-safety-quality/gm-foods-platform/browse-information-by/country/country-page/en/?cty=AZE] December 2020 and January 2021
- [7] Republic of Azerbaijan. Ministry of Agriculture. 2020. Website. [http://www.agro.gov.az/] Accessed December 2020 and January 2021
- [8] Republic of Azerbaijan. Ministry of Health. Center for Public Health and Reforms (ISIM). 2020. Website. [https://isim.az/en/main] Accessed December 2020 and January 2021
- [9] United Nations Office at Geneva (UNOG). Biological Weapons Convention Implementation Support Unit. Azerbaijan "Available Confidence Building Measures Reports." [https://bwc-ecbm.unog.ch/state/azerbaijan] Accessed December 2020 and January 2021
- [10] Verification Research, Training and Information Centre (VERTIC). Biological Weapons and Materials. BWC Legislation Database. "Azerbaijan." [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/a/] Accessed December 2020 and January 2021

1.4.2 Biosafety training and practices

1.4.2a

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

Yes = 1 , No = 0

Current Year Score: 0

There is insufficient evidence that Azerbaijan requires biosafety training, using a standardised, required approach, for personnel working in facilities housing or working with especially dangerous pathogens, toxins, or biological materials with pandemic potential.

Much of the recent effort to standardize biosafety training in Azerbaijan derives from support provided by the U.S. Cooperative Biological Engagement Program (CBEP), part of the U.S. Defense Threat Reduction Agency (DTRA) active in Azerbaijan since 2005. The training programmes encompass biosafety and biosecurity (BS&S) risk identification and

management, and the diagnostics of diseases caused by especially dangerous pathogens (EDPs). [1] However, it is not clear that standardization of instruction methods is a legal requirement for all relevant personnel in the nation's laboratories.

Although the Azeri language does not distinguish between biosafety and biosecurity, an official rulebook published in 2011 by the Ministry of Health on Biosafety/Biosecurity in laboratories does account for the possibility of having to protect against both accidental as well as deliberate or criminal acts. In Part VII, the rulebook lays out a general training protocol for personnel dealing with biological materials, according each lab's designated biosafety council much of the responsibility for developing its specific protocol. [2]

Neither the Ministry of Agriculture nor the Center for Public Health and Reforms (ISIM) indicate the existence of laws mandating the use of standardized biosafety training protocols in laboratories. [3, 4]

Finally, Azerbaijan has submitted 9 annual reports on Confidence-Building Measures under the Biological Weapons Convention; the most recent of these reports dates to 2018. However, access to the reports is restricted, and it is unclear if they contain information on this subject. [5] In addition, the Biological Weapons and Materials legislation database of the Verification Research, Training and Information Centre (VERTIC) lists no laws published by Azerbaijan with direct relevance to biosafety training. [6]

[1] Saida Aliyeva, Peter Flanagan, April Johnson and Lisa Strelow. 2016. "Toward the Development of a Sustainable Scientific Research Culture in Azerbaijan (2011-2015)". *Front. Public Health*, 04 July 2016.

[<https://www.frontiersin.org/articles/10.3389/fpubh.2016.00144/full>] Accessed December 2020 and January 2021

[2] Republic of Azerbaijan. Ministry of Health. 2011. "RULES OF BIOLOGICAL SAFETY IN LABORATORIES (LABORATORİYALARDA BİOLOJİ TƏHLÜKƏSİZLİK QAYDALARI)." [<http://health.gov.az/files/pdf/tehlukesizlik-qaydalari-MoH.pdf>] Accessed December 2020 and January 2021

[3] Republic of Azerbaijan. Ministry of Agriculture. 2020. Website. [<http://www.agro.gov.az/>] Accessed December 2020 and January 2021

[4] Republic of Azerbaijan. Ministry of Health. Center for Public Health and Reforms (ISIM). 2020. Website.

[<https://isim.az/en/main>] Accessed December 2020 and January 2021

[5] United Nations Office at Geneva (UNOG). Biological Weapons Convention Implementation Support Unit. Azerbaijan "Available Confidence Building Measures Reports." [<https://bwc-ecbm.unog.ch/state/azerbaijan>] Accessed December 2020 and January 2021

[6] Verification Research, Training and Information Centre (VERTIC). Biological Weapons and Materials. BWC Legislation Database. "Azerbaijan." [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/a/>] Accessed December 2020 and January 2021

1.5 DUAL-USE RESEARCH AND CULTURE OF RESPONSIBLE SCIENCE

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

1.5.1a

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

Yes = 1, No = 0

Current Year Score: 0

Available evidence does not indicate that Azerbaijan 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.

However, Azerbaijan's official participation in the Cooperative Threat Reduction (CTR) Program run by the U.S. Department of Defense's Defense Threat Reduction Agency (DTRA), reflects its clear interest in monitoring and reducing the dangers of such research. A key part of the CTR Program is the Cooperative Biological Engagement Program (CBEP), which has been active in Azerbaijan since 2005. Research and diagnosis of diseases caused by especially dangerous pathogens (EDPs) are hallmarks of DTRA-CBEP's work in the country, and all of Azerbaijan's "CBEP-enhanced" laboratories are responsible for diagnosing EDPs in their locales. [1]

Given that the DTRA-CBEP initiative is focused on reducing threats to defense, it is to an extent focused on dual-use research, or biological threats that can be weaponized. But it is unclear if the Azerbaijani government conducts assessments independently of its relationship with the CBEP program. None of the key entities likely to be entrusted with such research assessments--the Ministry of Health's Republican Anti-Plague Station (REPS), its Centre for Public Health and Reforms (ISIM--the national public health institute), or the Ministries of Agriculture and Defence indicate that they conduct assessments on whether dual-use research is occurring on the national territory. [2, 3, 4, 5]

Finally, Azerbaijan has submitted 9 annual reports on Confidence-Building Measures under the Biological Weapons Convention; the most recent of these reports dates to 2018. However, access to the reports is restricted, and it is unclear if they contain information on this subject. [6] In addition, the Biological Weapons and Materials legislation database of the Verification Research, Training and Information Centre (VERTIC) lists no laws published by Azerbaijan with direct relevance to dual-use research. [7]

[1] Saida Aliyeva, Peter Flanagan, April Johnson and Lisa Strelow. 2016. "Toward the Development of a Sustainable Scientific Research Culture in Azerbaijan (2011-2015)". Front. Public Health, 04 July 2016.

[<https://www.frontiersin.org/articles/10.3389/fpubh.2016.00144/full>] Accessed December 2020 and January 2021

[2] Republic of Azerbaijan. Ministry of Health. May 12 2016. "Epidemiological situation in Azerbaijan is completely under control (Azərbaycanda epidemioloji vəziyyət tamamilə nəzarət altındadır)." [<http://sehiyye.gov.az/main/1278-azrbaycanda-epidemioloji-vziyyt-tamamil-nzart-altndadr.html>] Accessed December 2020 and January 2021

[3] Republic of Azerbaijan. Ministry of Defense. 2020. Website. [<https://mod.gov.az/en/>] Accessed December 2020 and January 2021

[4] Republic of Azerbaijan. Ministry of Agriculture. 2020. Website. [<http://www.agro.gov.az/>] Accessed December 2020 and January 2021

[5] Republic of Azerbaijan. Ministry of Health. Center for Public Health and Reforms (ISIM). 2020. Website. [<https://isim.az/en/main>] Accessed December 2020 and January 2021

[6] United Nations Office at Geneva (UNOG). Biological Weapons Convention Implementation Support Unit. Azerbaijan "Available Confidence Building Measures Reports." [<https://bwc-ecbm.unog.ch/state/azerbaijan>] Accessed December 2020 and January 2021

[7] Verification Research, Training and Information Centre (VERTIC). Biological Weapons and Materials. BWC Legislation Database. "Azerbaijan." [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/a/>] Accessed December 2020 and January 2021

1.5.1b

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

Yes = 1 , No = 0

Current Year Score: 0

Available evidence does not indicate that there is a specific national policy in Azerbaijan requiring oversight of dual use research, such as research with especially dangerous pathogens, toxins, and/or pathogens with pandemic potential. None of the key entities likely to be entrusted with such research assessments--the Ministry of Health's Republican Anti-Plague Station (REPS), its Centre for Public Health and Reforms (ISIM--the national public health institute), or the Ministries of Agriculture and Defence indicate that they conduct assessments on whether dual-use research is occurring on the national territory. [1, 2, 3, 4]

It is probable that the country's government confidentially accords the issue high priority due to its official participation in the U.S. government's Cooperative Biological Engagement Program (CBEP), part of the Cooperative Threat Reduction (CTR) Program of the U.S. Department of Defense's Defense Threat Reduction Agency (DTRA), which has been active in Azerbaijan since 2005. [5] The DTRA maintains an office (Defense Threat Reduction Office--DTRO) in Azerbaijan to execute its nuclear and biological counter proliferation activities, such as CBEP. [6] However, neither the DTRA's website nor CBEP's most recently published comprehensive account of its activities in Azerbaijan (2016) make mention of having a policy to control dual-use research in Azerbaijan. [6, 7]

Finally, Azerbaijan has submitted 9 annual reports on Confidence-Building Measures under the Biological Weapons Convention; the most recent of these reports dates to 2018. However, access to the reports is restricted, and it is unclear if they contain information on this subject. [8] In addition, the Biological Weapons and Materials legislation database of the Verification Research, Training and Information Centre (VERTIC) lists no laws published by Azerbaijan with direct relevance to dual-use research. [9]

[1] Republic of Azerbaijan. Ministry of Health. May 12 2016. "Epidemiological situation in Azerbaijan is completely under control (Azərbaycanda epidemioloji vəziyyət tamamilə nəzarət altındadır)." [<http://sehiyye.gov.az/main/1278-azrbaycanda-epidemioloji-vziyyet-tamamil-nzart-altndadr.html>] Accessed December 2020 and January 2021

[2] Republic of Azerbaijan. Ministry of Defense. 2020. Website. [<https://mod.gov.az/en/>] Accessed December 2020 and January 2021

[3] Republic of Azerbaijan. Ministry of Agriculture. 2020. Website. [<http://www.agro.gov.az/>] Accessed December 2020 and January 2021

[4] Republic of Azerbaijan. Ministry of Health. Center for Public Health and Reforms (ISIM). 2020. Website. [<https://isim.az/en/main>] Accessed December 2020 and January 2021

[5] Saida Aliyeva, Peter Flanagan, April Johnson and Lisa Strelow. 2016. "Toward the Development of a Sustainable Scientific Research Culture in Azerbaijan (2011-2015)". Front. Public Health, 04 July 2016. [<https://www.frontiersin.org/articles/10.3389/fpubh.2016.00144/full>] Accessed December 2020 and January 2021

[6] U.S. Embassy in Azerbaijan. "Defense Threat Reduction Office (DTRO)". [<https://az.usembassy.gov/embassy/baku/sections-offices/defense-threat-reduction-office-dtro/>] Accessed December 2020 and January 2021

[7] United States Department of Defense. Cooperative Threat Reduction (CTR) Program. Cooperative Biological Engagement Program (CBEP). 2016. "Cooperative Biological Engagement Program Annual Accomplishments FY 2015." [<https://www.dtra.mil/Portals/61/Documents/Missions/CBEP%20FY15%20Annual%20Accomplishments.pdf?ver=2016-09-16-150152-690>] Accessed January 2021

[8] United Nations Office at Geneva (UNOG). Biological Weapons Convention Implementation Support Unit. Azerbaijan "Available Confidence Building Measures Reports." [<https://bwc-ecbm.unog.ch/state/azerbaijan>] Accessed December 2020 and January 2021

[9] Verification Research, Training and Information Centre (VERTIC). Biological Weapons and Materials. BWC Legislation Database. "Azerbaijan." [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation->

database/a/] Accessed December 2020 and January 2021

1.5.1c

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

Yes = 1 , No = 0

Current Year Score: 0

Publicly available evidence does not indicate that in Azerbaijan there is an agency specifically responsible for oversight of research with especially dangerous pathogens, pathogens with pandemic potential, and/or other dual-use research. None of the key entities likely to be entrusted with such research assessments--the Ministry of Health's Republican Anti-Plague Station (REPS), its Centre for Public Health and Reforms (ISIM--the national public health institute), or the Ministries of Agriculture and Defence indicate that they conduct assessments on whether dual-use research is occurring on the national territory. [1, 2, 3, 4]

It is probable that the country's government confidentially accords the issue high priority due to its official participation in the U.S. government's Cooperative Biological Engagement Program (CBEP), part of the Cooperative Threat Reduction (CTR) Program of the U.S. Department of Defense's Defense Threat Reduction Agency (DTRA), which has been active in Azerbaijan since 2005. [5] The DTRA maintains an office (Defense Threat Reduction Office--DTRO) in Azerbaijan to execute its nuclear and biological counter proliferation activities, such as CBEP. [6] However, neither the DTRA's website nor CBEP's most recently published comprehensive account of its activities in Azerbaijan (2016) make mention of having a policy to control dual-use research in Azerbaijan. [6, 7] Furthermore, it is unclear how much authority on oversight of dual-use research--if the activity exists--is exercised by the Azerbaijani government and how much is delegated to the U.S. Department of Defense.

Finally, Azerbaijan has submitted 9 annual reports on Confidence-Building Measures under the Biological Weapons Convention; the most recent of these reports dates to 2018. However, access to the reports is restricted, and it is unclear if they contain information on this subject. [8] In addition, the Biological Weapons and Materials legislation database of the Verification Research, Training and Information Centre (VERTIC) lists no laws published by Azerbaijan with direct relevance to dual-use research. [9]

[1] Republic of Azerbaijan. Ministry of Health. May 12 2016. "Epidemiological situation in Azerbaijan is completely under control (Azərbaycanda epidemioloji vəziyyət tamamilə nəzarət altındadır)." [<http://sehiyye.gov.az/main/1278-azrbaycanda-epidemioloji-vziyyt-tamamil-nzart-altndadr.html>] Accessed December 2020 and January 2021

[2] Republic of Azerbaijan. Ministry of Defense. 2020. Website. [<https://mod.gov.az/en/>] Accessed December 2020 and January 2021

[3] Republic of Azerbaijan. Ministry of Agriculture. 2020. Website. [<http://www.agro.gov.az/>] Accessed December 2020 and January 2021

[4] Republic of Azerbaijan. Ministry of Health. Center for Public Health and Reforms (ISIM). 2020. Website. [<https://isim.az/en/main>] Accessed December 2020 and January 2021

[5] Saida Aliyeva, Peter Flanagan, April Johnson and Lisa Strelow. 2016. "Toward the Development of a Sustainable Scientific Research Culture in Azerbaijan (2011-2015)". Front. Public Health, 04 July 2016. [<https://www.frontiersin.org/articles/10.3389/fpubh.2016.00144/full>] Accessed December 2020 and January 2021

[6] U.S. Embassy in Azerbaijan. "Defense Threat Reduction Office (DTRO)". [<https://az.usembassy.gov/embassy/baku/sections-offices/defense-threat-reduction-office-dtro/>] Accessed December 2020 and January 2021

[7] United States Department of Defense. Cooperative Threat Reduction (CTR) Program. Cooperative Biological Engagement Program (CBEP). 2016. "Cooperative Biological Engagement Program Annual Accomplishments FY 2015."

[<https://www.dtra.mil/Portals/61/Documents/Missions/CBEP%20FY15%20Annual%20Accomplishments.pdf?ver=2016-09-16-150152-690>] Accessed January 2021

[8] United Nations Office at Geneva (UNOG). Biological Weapons Convention Implementation Support Unit. Azerbaijan "Available Confidence Building Measures Reports." [<https://bwc-ecbm.unog.ch/state/azerbaijan>] Accessed December 2020 and January 2021

[9] Verification Research, Training and Information Centre (VERTIC). Biological Weapons and Materials. BWC Legislation Database. "Azerbaijan." [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/a/>] Accessed December 2020 and January 2021

1.5.2 Screening guidance for providers of genetic material

1.5.2a

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

Yes = 1 , No = 0

Current Year Score: 0

Available evidence does not indicate that Azerbaijan has national legislation, regulations, policies or other guidance, specifically requiring the screening of synthesized DNA before it is sold. None of the key entities likely to be entrusted with such assessments--the Ministry of Health and its Centre for Public Health and Reforms (ISIM--the national public health institute) or the Ministries of Agriculture, Defense and Transport indicate mandating such a screening policy. [1, 2, 3, 4, 5]

Instead, Azerbaijan has a number of laws that regulate genetically modified organisms (GMOs) intended for food or agricultural use. The main law in this regard is the law "On Food Products" dated November 18, 1999 and amended several times between 2001 and 2008. [6] Chapter III, Article 9 of this law contains the phrase; " It is forbidden to use genetic material of chemical, biological and other drugs , as well as genetically modified plants, containing narcotics and psychotropic substances in the manufacture of food products." [7]

Other laws tangentially touch on issues involving GMOs, such as the law "On Environmentally Clean Agriculture" adopted on June 13, 2008 which mandates the labelling of GMO products sold for agricultural and food use in the country. The import of GMO seeds was banned in 1997 under a law which was amended in 2006 to permit the limited import of GMOs for use in seed breeding and in closed-system research. [6] In 2015 Azerbaijan banned the import of GMO tobacco, cotton and wine, through amendments to existing laws on those goods. [8]

Finally, Azerbaijan has submitted 9 annual reports on Confidence-Building Measures under the Biological Weapons Convention; the most recent of these reports dates to 2018. However, access to the reports is restricted, and it is unclear if they contain information on this subject. [9] In addition, the Biological Weapons and Materials legislation database of the Verification Research, Training and Information Centre (VERTIC) lists no laws published by Azerbaijan with direct relevance to screening of synthesized DNA. [10]

[1] Republic of Azerbaijan. Ministry of Health. 2020. Website. [<http://health.gov.az/>] Accessed December 2020 and January 2021

[2] Republic of Azerbaijan. Ministry of Defense. 2020. Website. [<https://mod.gov.az/en/>] Accessed December 2020 and January 2021

[3] Republic of Azerbaijan. Ministry of Agriculture. 2020. Website. [<http://www.agro.gov.az/>] Accessed December 2020 and January 2021

- [4] Republic of Azerbaijan. Ministry of Health. Center for Public Health and Reforms (ISIM). 2020. Website. [https://isim.az/en/main] Accessed December 2020 and January 2021
- [5] Republic of Azerbaijan. Ministry of Transport, Communications and High Technologies. 2020. Website. [https://mincom.gov.az/en/] Accessed December 2020 and January 2021
- [6] Ayten Mustafayeva, Vugar Mammadov, Ismat Ahmadov and Lala Jafarova. November 15 2013. "Legal Regulation of Genetically Modified Products in Azerbaijan". *Advancements in Genetic Engineering*. 2:116. [https://www.longdom.org/open-access/legal-regulation-of-genetically-modified-products-in-azerbaijan-2169-0111.1000116.pdf] Accessed December 2020 and January 2021
- [7] Republic of Azerbaijan. Ministry of Justice. Electronic database of regulations (E-Qanun.az). November 18, 1999. "LAW OF THE REPUBLIC OF AZERBAIJAN: On food products (Yeyinti məhsulları haqqında AZƏRBAYCAN RESPUBLİKASININ QANUNU)." [http://www.e-qanun.az/framework/98] Accessed December 2020 and January 2021
- [8] Nigar Orujova. December 15 2015. "Azerbaijan bans GMO Tobacco, Wine and Cotton Products". *Food Democracy Now*. [https://fooddemocracynow.org/2015/12/16/azerbaijan-bans-gmo-tobacco-wine-and-cotton-products/] Accessed December 2020 and January 2021
- [9] United Nations Office at Geneva (UNOG). Biological Weapons Convention Implementation Support Unit. Azerbaijan "Available Confidence Building Measures Reports." [https://bwc-ecbm.unog.ch/state/azerbaijan] Accessed December 2020 and January 2021
- [10] Verification Research, Training and Information Centre (VERTIC). Biological Weapons and Materials. BWC Legislation Database. "Azerbaijan." [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/a/] Accessed December 2020 and January 2021

1.6 IMMUNIZATION

1.6.1 Vaccination rates

1.6.1a

Immunization rate (measles/MCV2)

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

Current Year Score: 2

2019

World Health Organization

1.6.1b

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

Yes = 1 , No = 0

Current Year Score: 1

2020

OIE WAHIS database

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

2.1 LABORATORY SYSTEMS STRENGTH AND QUALITY

2.1.1 Laboratory testing for detection of priority diseases

2.1.1a

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

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

Current Year Score: 0

Evidence is sparse that the national laboratory system in Azerbaijan can conduct at least five of the 10 WHO-defined core tests. The Ministry of Health indicates that its Republic Anti-Plague Station (RAPS) combats "...tuberculosis, tularaemia, gonorrhoea, brucellosis, bird flu, swine flu, Ebola and other infections..." with its regional laboratories carrying out diagnoses through methods including serological and polymerase chain reaction (PCR) techniques. But the ministry does not indicate which of the 10 WHO-defined core tests its labs undertake. [1]

Other evidence does attest to the domestic capacity to conduct three of the WHO-defined core tests using the criteria identified here. First, the health ministry's 2008 national plan on influenza pandemics states that field laboratories have been created with real-time polymerase chain reaction (PCR) capabilities, used to detect the A / H5N1 virus of the disease. [2] Second, according to the ministry's Republican Center for AIDS Control, "Specific indicators of HIV infection are determined by serological (HIV-antigens and antibodies to antigens) and molecular-genetic (HIV RNA) methods. The most widely used serological methods in the diagnosis of HIV infection are enzyme-linked immunosorbent assay and immunoblotting, molecular genetic methods - polymerase chain reaction. [3] Third, the Ministry of Health's Tuberculosis Control Program tests for multi-drug-resistant tuberculosis; under its auspices a dedicated National Reference Laboratory, certified by the World Health Organization (WHO) and located at the Research Institute of Lung Diseases in Baku, has been operating at full capacity since 2010 and undertakes bacteriological examination (i.e., microscopy) of sputum samples, brought from all cities and regions of the republic. [4] There is also evidence that the Euromed Medical Center, a private clinic in Baku, offers testing for salmonella spp (as well as for mycobacterium tuberculosis and HIV-RNA), but the tests used there are different from the ones identified here.

By contrast, there is little evidence that labs in Azerbaijan use rapid diagnostic testing for plasmodium spp. (malaria) or virus culture for polio. The website of the Ministry of Health's Centre for Public Health and Reforms (ISIM--the national public health institute), which should be a key source on the topic, provides little information on the country's capacity to conduct the WHO-defined core tests. [6]

[1] Republic of Azerbaijan. Ministry of Health. May 12 2016. "Epidemiological situation in Azerbaijan is completely under control (Azərbaycanda epidemioloji vəziyyət tamamilə nəzarət altındadır)." [<http://sehiyye.gov.az/main/1278-azrbaycanda-epidemioloji-vziyyet-tamamil-nzart-altndadr.html>] Accessed December 2020 and January 2021

[2] Republic of Azerbaijan. Ministry of Health. 2008 " REPUBLIC OF AZERBAIJAN NATIONAL PLAN OF PREPARATION FOR INFLUENZA PANDEMICS (AZƏRBAYCAN RESPUBLİKASINDA QRİP PANDEMİYASINA HAZIRLIQ ÜZRƏ MİLLİ PLAN)."

[http://sehiyye.gov.az/files/pdf/PPP_OF_AZERBAIJAN_Az.pdf] Accessed December 2020 and January 2021

- [3] Republic of Azerbaijan. Ministry of Health. Republican Center for AIDS Control. "Diagnosis of HIV infection (iiV- infeksiyasının diaqnostikasi)." [http://aids.az/az/qics_about/diaqnostikasi/] Accessed December 2020 and January 2021
- [4] Republic of Azerbaijan. Ministry of Health. "Tuberculosis Control Program (Vərəmlə mübarizə üzrə Tədbirlər Proqramı)." [<http://sehiyye.gov.az/veremle-mubarize-proqrami.html>] Accessed December 2020 and January 2021
- [5] Euromed Medical Center. "PCR (POLYMERASE CHAIN REACTION) (PZR (POLİMERAZ ZƏNCİRVARİ REAKSİYA)." [[http://euromed.az/az-l-pzr-\(polimeraz-zencirvari-reaksiya\).html](http://euromed.az/az-l-pzr-(polimeraz-zencirvari-reaksiya).html)] Accessed January 2021
- [6] Republic of Azerbaijan. Ministry of Health. Center for Public Health and Reforms (ISIM). 2020. Website. [<https://isim.az/en/main>] Accessed January 2021

2.1.1b

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

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

Current Year Score: 0

There is insufficient evidence that Azerbaijan has a plan for conducting testing during a public health emergency that includes considerations for testing for novel pathogens, scaling capacity, and defining goals for testing.

In response to the COVID-19 coronavirus pandemic, Azerbaijan developed a response involving testing, with considerable advisory input from the World Health Organisation (WHO). As of March 2021, according to the WHO around 50 laboratories have been designated across the country for COVID-19 testing, performing around 57,000 test a week, mostly using PCR techniques- The WHO states: "The Government has a strategy to expand testing capacities and a roll-out plan for additional laboratories- to be added to the network when needed." By 17 March 2021, the weekly number of tests performed in Azerbaijan was almost 57,000. [9]

Otherwise, a scan of relevant national laws provides no evidence of the existence of a stand-alone national plan and/or strategy document that specifically addresses infectious diseases during a public health emergency. [1] There are some Ministry of Health regulations relating to immunoprophylaxis for infectious diseases, and a few decrees on the control of specific infectious diseases, such as tuberculosis and Crimean-Congo hemorrhagic fever. Annually, the ministry issues a decree on preventive measures for the current influenza strain. The key law that might be considered a proxy for a national plan on infectious diseases and public health--the Law of the Republic of Azerbaijan on sanitary-epidemiological safety (1992)--in Article 25 simply mandates state health authorities to institute special policies in their areas of competence and to carry out control measures in the event of a threat of the emergence or spread of infectious, parasitic, mass non-communicable diseases. The law also mandates that a special fund be established under the Republican Center for Hygiene and Epidemiology to finance the costs of such control measures.[2] However, this law does not address testing for novel pathogens or scaling capacities to respond.

An example of a stand-alone strategy document specifically addressing an infectious disease is the Ministry of Health's National Influenza Pandemic Preparedness Plan, published in 2008. As with the ministry's other policy documents on infectious diseases, this manual focuses on prophylactic rather than preparatory measures. It addresses testing but does not include considerations for testing for novel pathogens, scaling capacity, and defining goals for testing. [3] Similarly, the Ministry of Health's strategic plan for 2014-2020 discusses principles such as improvement of healthcare services quality and efficiency, monitoring and assessment of the strategic plan's procedures and policies, optimization of staff and facility performance and preparedness, and securing of medical supplies and expertise, but it does not address the scaling of

capacities, such as for testing during public health emergencies. [4]

The World Health Organization (WHO) notes that it assists Azerbaijan's Ministry of Health "...in strengthening the country's disaster preparedness and response capacities and coordination mechanisms. Recent activities included the establishment of a national Health Disaster Preparedness and Response Network, an in-depth assessment of health security and crisis management capacities and the establishment of the Emergency Operations Centre at the Ministry of Health." It should be noted that an internet search in Azeri and English reveals little to no evidence of the existence of either the network or the operations center. [5]

Otherwise, neither the Ministry of Health's Sanitary-epidemiological service, its Center for Public Health and Reforms (ISIM--the national public health institute), nor the Ministry of Agriculture provide evidence of having a policy in regard to this overall topic. [6, 7, 8]

[1] Republic of Azerbaijan. Ministry of Health. 2020. Website. [<http://sehiyye.gov.az/>] Accessed December 2020 and January 2021

[2] Republic of Azerbaijan. Ministry of Health. 1992. "Law of the Republic of Azerbaijan on sanitary-epidemiological safety (Sanitariya-epidemioloji salamatliq haqqında Azərbaycan Respublikasının Qanunu)." [<http://e-qanun.az/framework/7916>] Accessed December 2020 and January 2021

[3] Republic of Azerbaijan. Ministry of Health. August 8 2008. "NATIONAL INFLUENZA PANDEMIC PREPAREDNESS PLAN OF THE REPUBLIC OF AZERBAIJAN". [http://sehiyye.gov.az/files/pdf/PPP_OF_AZERBAIJAN_Eng.pdf] Accessed December 2020 and January 2021

[4] Republic of Azerbaijan. Ministry of Health. Strategic Plan of the Ministry of Health of the Republic of Azerbaijan for 2014-2020 (Azərbaycan Respublikası Səhiyyə Nazirliyinin 2014-2020-ci illər üzrə Strateji Planı)." [http://www.sehiyye.gov.az/files/pdf/emr_2014_30.pdf] Accessed December 2020 and January 2021

[5] World Health Organization (WHO). Health emergencies. "Azerbaijan." [<https://www.euro.who.int/en/health-topics/health-emergencies/from-disaster-preparedness-and-response/country-work/azerbaijan>] Accessed December 2020 and January 2021

[6] Republic of Azerbaijan. Ministry of Health. 2020. "Sanitary-epidemiological service (Sanitariya-epidemioloji xidmət)." [<http://health.gov.az/sanitariya-epidemioloji-xidmet.html>] Accessed December 2020 and January 2021

[7] Republic of Azerbaijan. Ministry of Health. Center for Public Health and Reforms (ISIM). 2020. Website. [<https://isim.az/en/main>] Accessed December 2020 and January 2021

[8] Republic of Azerbaijan. Ministry of Agriculture. 2020. Website. [<http://www.agro.gov.az/>] Accessed December 2020 and January 2021

[9] WHO Regional Office for Europe and European Observatory on Health Systems and Policies. COVID-19 Health System Response Monitor. March 18 2021. "TESTING." [<https://www.covid19healthsystem.org/countries/azerbaijan/livinghit.aspx?Section=1.5%20Testing&Type=Section>] Accessed April 2021

[10] United Nations Azerbaijan. July 31 2020. "Improved testing, contact tracing and data management: WHO revealed key recommendations to Azerbaijan COVID-19 response." [<https://azerbaijan.un.org/en/86573-improved-testing-contact-tracing-and-data-management-who-revealed-key-recommendations>] Accessed April 2021 Other sources : Republic of Azerbaijan. Ministry of Health. 2008. "INSTRUCTIONS FOR H5N1 Avian Influenza (H5N1 Quş Qripri XƏSTƏLİYİNƏ DAİR TƏLİMAT)." [http://sehiyye.gov.az/files/pdf/AI_Human_Health_guidelines_az.pdf] Accessed December 2020 and January 2021

2.1.2 Laboratory quality systems

2.1.2a

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

Yes = 1 , No = 0

Current Year Score: 0

Available evidence does not indicate that Azerbaijan has one single national laboratory that serves as an overarching reference facility, accredited or otherwise.

The Republic Anti-Plague Station (RAPS), the department of the Ministry of Health leading the fight against infectious human diseases, is hosting a new Central Reference Laboratory, evidently under construction through the involvement of the Cooperative Biological Engagement Program (CBEP) of the U.S. Defense Treat Reduction Agency (DTRA). This laboratory will be a BSL-3 (biological safety level-3) facility, but for now more detail is lacking as to the specific testing capability of this emerging facility or its accreditation status. [1] Overall, evidence is lacking as to the accreditation of any of the "CBEP-enhanced" laboratories in Azerbaijan. [2]

Paralleling the work of the RAPS, the top-level diagnostic facility for infectious animal diseases is the Republican Veterinary Laboratory (RVL) at the Ministry of Agriculture's Agrarian Services Agency. It too provides no evidence of being accredited. [3] At least one private laboratory in the country has received accreditation: Shafa Medical Diagnostic Center in Baku, which has both the ISO 9001:2008 and ISO15189: 2012 certifications. [4]

[1] Republic of Azerbaijan. Ministry of Health. May 12 2016. "Epidemiological situation in Azerbaijan is completely under control (Azərbaycanda epidemioloji vəziyyət tamamilə nəzarət altındadır)." [<http://sehiyye.gov.az/main/1278-azrbaycanda-epidemioloji-vziyyt-tamamil-nzart-altndadr.html>] Accessed December 2020

[2] Saida Aliyeva, Peter Flanagan, April Johnson and Lisa Strelow. 2016. "Toward the Development of a Sustainable Scientific Research Culture in Azerbaijan (2011-2015)". Front. Public Health, 04 July 2016. [<https://www.frontiersin.org/articles/10.3389/fpubh.2016.00144/full>] Accessed December 2020

[3] Republic of Azerbaijan. Ministry of Agriculture. Agrarian Services Agency. "Veterinary service (Baytarlıq xidməti)." [<http://axa.gov.az/xidmetler/baytarliq-xidmeti>] Accessed December 2020

[4] Shafa Medical-Diagnostic Center. "CERTIFICATES (SERTİFİKATLAR)." [<https://www.shafa-gen.az/>] Accessed 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: 0

Available evidence does not indicate that Azerbaijan has one single national laboratory that serves as an overarching reference facility and that has been subject to external quality assurance (EQA) review.

For example, there is little to no evidence that the Republic Anti-Plague Station (RAPS)--the department of the Ministry of Health leading the fight against infectious human diseases-- or its nascent Central Reference Laboratory--have been or will be subject to an EQA. [1] Overall, available evidence is insufficient to explain how any of the "Cooperative Biological Engagement Program (CBEP)-enhanced" laboratories in Azerbaijan are made subject to formal third-party evaluation. [2] Similarly, evidence does not indicate that the top-level diagnostic facility for infectious animal diseases--the Republican

Veterinary Laboratory (RVL) at the Ministry of Agriculture's Agrarian Services Agency--has received an EQA. [3]

[1] Republic of Azerbaijan. Ministry of Health. May 12 2016. "Epidemiological situation in Azerbaijan is completely under control (Azərbaycanda epidemioloji vəziyyət tamamilə nəzarət altındadır)." [<http://sehiyye.gov.az/main/1278-azrbaycanda-epidemioloji-vziyyt-tamamil-nzart-altndadr.html>] Accessed December 2020

[2] Saida Aliyeva, Peter Flanagan, April Johnson and Lisa Strelow. 2016. "Toward the Development of a Sustainable Scientific Research Culture in Azerbaijan (2011-2015)". Front. Public Health, 04 July 2016.

[<https://www.frontiersin.org/articles/10.3389/fpubh.2016.00144/full>] Accessed December 2020

[3] Republic of Azerbaijan. Ministry of Agriculture. Agrarian Services Agency. "Veterinary service (Baytarlıq xidməti)." [<http://axa.gov.az/xidmetler/baytarliq-xidmeti>] Accessed 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: 0

Although Azerbaijan has regulations on the transport of dangerous substances, which encompass infectious disease specimens, there is insufficient evidence of a nationwide specimen transport system.

There is, however, some evidence that certain biological laboratories in Azerbaijan may have a system in place for transporting infectious disease specimens. This is because of those laboratories' participation in the Cooperative Biological Engagement Program (CBEP), part of the Cooperative Threat Reduction (CTR) Program of the U.S. Department of Defense's Defense Threat Reduction Agency (DTRA). Since 2005 DTRA-CBEP has been instrumental in renovating and developing Azerbaijan's Soviet-era BSL-2 laboratories [1] (and possibly in the construction of its sole BSL-3 laboratory as well), and it provides training "in level-specific diagnostic testing as well as sample collection and transport, with emphasis on sample viability and preserving sample integrity." [2] However, specific information on such transport is not readily available.

Regulations do exist for the transport of such substances. For example, the Ministry of Health's rulebook for biosafety/biosecurity in laboratories, published in 2011, recommends that rules for transporting these types of substances should be made and enforced according to the United Nations Committee of Experts on the Transport of Dangerous Goods, the International Civil Aviation Organization (ICAO), the several European Agreements concerning the International Carriage of Dangerous Goods, and the International Air Transport Association (IATA). [3] However, this is not evidence for the existence of a specimen transport system.

Similarly, Azerbaijan's ministries of health and agriculture provide no evidence of the existence of a regulated specimen transport system. [4, 5]

[1] Saida Aliyeva, Peter Flanagan, April Johnson and Lisa Strelow. 2016. "Toward the Development of a Sustainable Scientific Research Culture in Azerbaijan (2011-2015)". Front. Public Health, 04 July 2016.

[<https://www.frontiersin.org/articles/10.3389/fpubh.2016.00144/full>] Accessed December 2020

[2] United States Department of Defense. Cooperative Threat Reduction (CTR) Program. Cooperative Biological Engagement Program (CBEP). 2016. "Cooperative Biological Engagement Program Annual Accomplishments FY 2015."

[<https://www.dtra.mil/Portals/61/Documents/Missions/CBEP%20FY15%20Annual%20Accomplishments.pdf?ver=2016-09-16-150152-690>] Accessed January 2021

[3] Republic of Azerbaijan. Ministry of Health. 2011. "RULES OF BIOLOGICAL SAFETY IN LABORATORIES (LABORATORİYALARDA BİOLOJİ TƏHLÜKƏSİZLİK QAYDALARI)". [<http://health.gov.az/files/pdf/tehlukesizlik-qaydalari-MoH.pdf>] Accessed December 2020

[4] Republic of Azerbaijan. Ministry of Health. 2020. Website. [<http://health.gov.az/>] Accessed December 2020 and January 2021

[5] Republic of Azerbaijan. Ministry of Agriculture. 2020. Website. [<http://www.agro.gov.az/>] Accessed December 2020 and January 2021

2.2.2 Laboratory cooperation and coordination

2.2.2a

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

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

Current Year Score: 0

Available evidence does not indicate that in Azerbaijan there is a national-level 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.

Remarkably, a scan of the Ministry of Health's published laws, decrees, orders and Cabinet decisions on public health provides no evidence of the existence of a stand-alone national plan and/or strategy document that specifically addresses improving the capacity of the public health system (including the laboratory system) to meet a public health emergency. [1] Very few of the published regulations address policy on laboratories. The key law that might be considered a proxy for a national plan on infectious diseases and public health--the Law of the Republic of Azerbaijan on sanitary-epidemiological safety (1992)--sets no policy for the role of laboratories, in emergencies or under normal conditions. [2]

Among the ministry's publicly available regulations mentioning laboratories, its Order №45 of June 25 2015, "On strengthening laboratory diagnosis of infectious disease", simply instructs the country's medical facilities to adhere to a standard operating procedure as regards the subject. [3]

Similarly, the Ministry of Health's strategic plan for 2014-2020 discusses principles such as improvement of healthcare services quality and efficiency, monitoring and assessment of the strategic plan's procedures and policies, optimization of staff and facility performance and preparedness, and securing of medical supplies and expertise, but it does not address the scaling of capacities, such as with regard to laboratories. [4]

The World Health Organization (WHO) notes that it assists Azerbaijan's Ministry of Health "...in strengthening the country's disaster preparedness and response capacities and coordination mechanisms. Recent activities included the establishment of a national Health Disaster Preparedness and Response Network, an in-depth assessment of health security and crisis management capacities and the establishment of the Emergency Operations Centre at the Ministry of Health." It should be noted that an internet search in Azeri and English reveals little to no evidence of the existence of either the network or the operations center. [5]

Otherwise, neither the Ministry of Health's Sanitary-epidemiological service, its Center for Public Health and Reforms (ISIM--

the national public health institute), nor the Ministry of Agriculture provide evidence of having a policy in regard to this overall topic. [6, 7, 8]

- [1] Republic of Azerbaijan. Ministry of Health. 2020. Website. [<http://sehiyye.gov.az/>] Accessed December 2020 and January 2021
- [2] Republic of Azerbaijan. Ministry of Health. 1992. "Law of the Republic of Azerbaijan on sanitary-epidemiological safety (Sanitariya-epidemioloji salamatliq haqqında Azərbaycan Respublikasının Qanunu)." [<http://e-qanun.az/framework/7916>] Accessed December 2020 and January 2021
- [3] Republic of Azerbaijan. Ministry of Health. 2015. "№45; 25.06.2015 - "On strengthening laboratory diagnosis of infectious diseases (№45; 25.06.2015 - "Yoluxucu xəstəliklərin laborator diaqnostikasının gücləndirilməsi barədə)" [http://www.sehiyye.gov.az/files/pdf/emrler/emr_2015_45.pdf] Accessed December 2020 and January 2021
- [4] Republic of Azerbaijan. Ministry of Health. Strategic Plan of the Ministry of Health of the Republic of Azerbaijan for 2014-2020 (Azərbaycan Respublikası Səhiyyə Nazirliyinin 2014-2020-ci illər üzrə Strateji Planı)." [http://www.sehiyye.gov.az/files/pdf/emr_2014_30.pdf] Accessed December 2020 and January 2021
- [5] World Health Organization (WHO). Health emergencies. "Azerbaijan." [<https://www.euro.who.int/en/health-topics/health-emergencies/from-disaster-preparedness-and-response/country-work/azerbaijan>] Accessed December 2020 and January 2021
- [6] Republic of Azerbaijan. Ministry of Health. 2020. "Sanitary-epidemiological service (Sanitariya-epidemioloji xidmət)." [<http://health.gov.az/sanitariya-epidemioloji-xidmet.html>] Accessed December 2020 and January 2021
- [7] Republic of Azerbaijan. Ministry of Health. Center for Public Health and Reforms (ISIM). 2020. Website. [<https://isim.az/en/main>] Accessed December 2020 and January 2021
- [8] Republic of Azerbaijan. Ministry of Agriculture. 2020. Website. [<http://www.agro.gov.az/>] Accessed December 2020 and January 2021

2.3 REAL-TIME SURVEILLANCE AND REPORTING

2.3.1 Indicator and event-based surveillance and reporting systems

2.3.1a

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

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

Current Year Score: 0

Evidence is lacking that Azerbaijan conducts ongoing event-based surveillance and analysis for infectious disease.

The country has an Emergency Operations Center (EOC), but it is not focused on managing public health emergencies. Called the Crisis Management Centre, it is part of the Ministry of Emergency Situations, which focuses on natural and manmade disasters, not infectious disease outbreaks. [1] The Centre's tasks are collecting, summarizing, analysing and making relevant decisions about the information received from various sources during a crisis. Part of the Centre's information-collection system appears to be automated, and it also receives information from citizens over the 112 emergency telephone hotline. [2]

Furthermore, although the World Health Organisation (WHO) mentions the establishment of an EOC at the Ministry of Health, publicly available information relevant to the Ministry's activities provides no evidence of the existence of such a unit

there. [3, 4]

Finally, neither the Ministry of Agriculture, nor the Centre for Public Health and Reforms (ISIM--the national public health institute), nor Ministry of Health's national lab administrator (the Hygiene and Epidemiology Centre), nor the CBEP-enhanced labs provide evidence that any of them conduct event-based surveillance for infectious disease. [5, 6, 7, 8]

[1] Republic of Azerbaijan. Ministry of Emergency Situations. "Bodies: Crisis Management Centre".

[<http://www.fhn.gov.az/?eng/menu/65/192>] Accessed December 2020 and January 2021

[2] Republic of Azerbaijan. Ministry of Emergency Situations. Crisis Management Centre. "Areas of Activity (Fəaliyyət istiqamətləri)." [<https://www.fhn.gov.az/organizations.php?aze-14#services>] Accessed December 2020 and January 2021

[3] World Health Organization (WHO). Health emergencies. "Azerbaijan." [<https://www.euro.who.int/en/health-topics/health-emergencies/from-disaster-preparedness-and-response/country-work/azerbaijan>] Accessed December 2020 and January 2021

[4] Republic of Azerbaijan. Ministry of Health. "Structure of the Ministry (Nazirliyin Strukturu)".

[<http://sehiyye.gov.az/files/stuktur.jpg>] Accessed December 2020 and January 2021

[5] Republic of Azerbaijan. Ministry of Health. Center for Public Health and Reforms (ISIM). 2020. Website.

[<https://isim.az/en/main>] Accessed December 2020 and January 2021

[6] Republic of Azerbaijan. Ministry of Health. Hygiene and Epidemiology Center. [<http://sehiyye.gov.az/gigiyena/>] Accessed December 2020 and January 2021

[7] Republic of Azerbaijan. Ministry of Agriculture. 2020. Website. [<http://www.agro.gov.az/>] Accessed December 2020 and January 2021

[8] Saida Aliyeva, Peter Flanagan, April Johnson and Lisa Strelow. 2016. "Toward the Development of a Sustainable Scientific Research Culture in Azerbaijan (2011-2015)". Front. Public Health, 04 July 2016.

[<https://www.frontiersin.org/articles/10.3389/fpubh.2016.00144/full>] Accessed December 2020 and January 2021

2.3.1b

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

Yes = 1, No = 0

Current Year Score: 0

According to the World Health Organization (WHO), Azerbaijan has not reported a potential public health emergency of international concern (PHEIC) to the WHO within the past two years. The last reported outbreak in the country was of avian influenza, covering the period March-April 2006. The outbreak resulted in eight confirmed cases of infections by the H5N1 virus in the country, five of which were fatal. [1]

No additional evidence of more recent outbreaks of infectious disease is available from the Ministry of Health. [2]

Quoting Russia's Interfax news agency, on February 28 2020 international news media reported that Azerbaijan's coronavirus crisis center had confirmed the previous Friday (February 24) the country's first confirmed case of the COVID-19 coronavirus infection on its territory, involving a Russian national traveling from Iran. This event occurred nearly a month after the WHO announced COVID-19 as a PHEIC. [3]

[1] World Health Organization (WHO). "Emergencies preparedness, response: Azerbaijan".

[<https://www.who.int/csr/don/archive/country/aze/en/>] Accessed December 2020

[2] Republic of Azerbaijan. Ministry of Health. 2020. "Press service - news (mətbuat xidməti xəbərlər)".

[<http://www.health.gov.az/xeberler/>] Accessed December 2020

[3] Anton Kolodyazhnyy, Tom Balmforth, Alison Williams. February 28 2020. "Azerbaijan reports first case of coronavirus - ifax." Thomson Reuters. [<https://www.reuters.com/article/us-china-health-azerbaijan/azerbaijan-reports-first-case-of-coronavirus-ifax-idUKKCN20M1IR>] Accessed January 2021

2.3.2 Interoperable, interconnected, electronic real-time reporting systems

2.3.2a

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

Yes = 1 , No = 0

Current Year Score: 1

Azerbaijan's government operates an electronic reporting surveillance system at both the national and sub-national level. It was created by the Ministry of Health in 2010 and consists of seven key modules, including for human cases, vector surveillance, laboratories, and outbreaks. Interaction of these modules allows summarizing the data in whole across the different sectors. Data on 50 notifiable diseases, including suspect and probable cases, is entered into the system over the Internet by all regional centers for hygiene and epidemiology and medical facilities, except those in the small region of Nakhichevan. The system permits the data to be exchanged between different government agencies. [1]

The system was developed through cooperation with US Defense Threat Reduction Agency (DTRA) Biological Threat Reduction Program (BTRP) run by the United States Department of Defense, which aims to prevent the spread of biological weapons technology in the Caucasus region, among others. Data are transferred, almost in real time, for processing, storage and analysis to the central Republic Hygiene and Epidemiology Center in Baku. A central database of this information is maintained. [2]

[1] Z Rasulzade, R Ismayilova, N Mursalova and T Veliyev. 2019. Abstract. "Enhancement of disease reporting after implementation of the electronic integrated disease surveillance system in Azerbaijan." 12th Edition of International Conference on Infectious Diseases. Journal of Infectious Diseases and Treatment.

[<https://www.imedpub.com/proceedings/enhancement-of-disease-reporting-after-implementation-of-the-electronic-integrated-disease-surveillance-system-in-azerba-7389.html>] Accessed December 2020

[2] Republic of Azerbaijan. Ministry of Health. E-Health system. "Electronic observation system of infectious diseases". [<http://e-sehiyye.gov.az/en/s/10/Electronic+observation+system+of+infectious+diseases>] Accessed 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: 1

Available evidence suggests that Azerbaijan's electronic reporting surveillance system collects laboratory and other data in real time. Azerbaijan's government operates an electronic reporting surveillance system at both the national and sub-national level. It was created by the Ministry of Health in 2010 and consists of seven key modules, including for human cases, vector surveillance, laboratories, and outbreaks. Interaction of these modules allows summarizing the data in whole across the different sectors. Data on 50 notifiable diseases, including suspect and probable cases, is entered into the system over the Internet by all regional centers for hygiene and epidemiology and medical facilities, except those in the small region of Nakhichevan. The system permits the data to be exchanged between different government agencies. [1, 2, 3]

This system was developed through cooperation with the US Defense Threat Reduction Agency (DTRA)'s Biological Threat Reduction Program (BTRP) run by the United States Department of Defense, which aims to prevent the spread of biological weapons technology in the Caucasus region, among others. Data are transferred, in real time, for processing, storage and analysis to the central Republic Hygiene and Epidemiology Center in Baku. A central database of this information is maintained. [2]

[1] Z Rasulzade, R Ismayilova, N Mursalova and T Veliyev. 2019. Abstract. "Enhancement of disease reporting after implementation of the electronic integrated disease surveillance system in Azerbaijan." 12th Edition of International Conference on Infectious Diseases. Journal of Infectious Diseases and Treatment.

[<https://www.imedpub.com/proceedings/enhancement-of-disease-reporting-after-implementation-of-the-electronic-integrated-disease-surveillance-system-in-azerba-7389.html>] Accessed December 2020 and January 2021

[2] Republic of Azerbaijan. Ministry of Health. E-Health system. "Electronic observation system of infectious diseases."

[<http://e-sehiyye.gov.az/en/s/10/Electronic+observation+system+of+infectious+diseases>] Accessed December 2020 and January 2021

[3] Republic of Azerbaijan. Ministry of Health. E-Health system. "Exemplary medical-information system." [<http://e-sehiyye.gov.az/en/s/9/Exemplary+medical-information+system>] Accessed December 2020 and January 2021

2.4 SURVEILLANCE DATA ACCESSIBILITY AND TRANSPARENCY

2.4.1 Coverage and use of electronic health records

2.4.1a

Are electronic health records commonly in use?

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

Current Year Score: 1

Although electronic health records (EHRs) are in use in Azerbaijan, available evidence indicates that most registered users are infants and children.

The Ministry of Health since 2007 has operated an Electronic Health Card System (EHCS) that collects and processes personal, medical and insurance information. Data in the health card include a patient's medical history, record of examinations and treatment, list of medicines used and inoculations received, plus health insurance information. Information in the card may be read and altered at the registration departments of the hospitals, maternity homes, children's polyclinics and laboratories, to be extended sometime in the future to ambulances and retail pharmacies via a connecting computer network. [1] The EHCS is connected to all the medical institutions in the main cities and regions of the country. Security and confidentiality of information is prioritized, and only persons authorized by medical institutions may access the system to obtain and revise information on the holder of a health card. [1]

The World Health Organization (WHO)'s latest scorecard on the state of e-health in Azerbaijan, dating from 2015, indicates that EHRs are used in 50-75% of the nation's primary care facilities (e.g. clinics and health care centres) and in 25-50% of its secondary care facilities (e.g. hospitals, emergency care). [2]

More recent evidence is available from the European Commission's HiQSTEP Project, whose 2017 eHealth Study Report indicates that Azerbaijan with support from the World Bank has since 2011 been working on developing an integrated health

information system to unite siloed systems such as the citizen's ID health card system, the hospital management information system, the Infectious disease reporting system and the blood bank system. The study states that the citizen's ID health card system is linked to the health insurance system and is connected to 76 hygiene and epidemiology centres and 95 medical examination "cabinets", with a total of 300,000 citizens having been registered in the ID card system up to the date of the study. The study does not indicate how many of these registered individuals are children and how many are adults. [3]

[1] Republic of Azerbaijan. Ministry of Health. E-Health. "Electronic Health Card System of Citizens." [<http://e-sehiyye.gov.az/en/s/12/Electronic+Health+Card+System+of+Citizens>] Accessed December 2020

[2] World Health Organization (WHO). Global Observatory for eHealth (GOE). 2015. "Azerbaijan." [<https://www.who.int/goe/publications/atlas/2015/aze.pdf?ua=1>] Accessed December 2020

[3] Kantor Management Consultants, European Commission. HiQSTEP Project. December 2017. "HARMONISATION OF THE DIGITAL MARKETS IN THE EASTERN PARTNERSHIP: eHealth Study Report." [<https://europa.eu/capacity4dev/file/74882/download?token=3FnJPzqI>] Accessed 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: 1

The national public health system in Azerbaijan has access to electronic health records of individuals in the country. However, the use of e-health records in the country is still moderate, as evidence indicates that the system prioritises the registering of infants and children.

The Ministry of Health since 2007 has operated an Electronic Health Card System (EHCS) that collects and processes personal, medical and insurance information. That year, a Special Communication and Information Technologies department was established in the ministry's Centre for Public Health and Reforms (ISIM--the national public health institute) to train the staff of municipal and regional public health institutions in the use of specialized EHCS software. 268 computer work stations were set up in maternity homes and children's medical institutions and broadband internet networks installed. [1, 2]

Data in the health card include a patient's medical history, record of examinations and treatment, list of medicines used and inoculations received, plus health insurance information. Information in the card may be read and altered at the registration departments of the hospitals, maternity homes, children's polyclinics and laboratories, to be extended sometime in the future to ambulances and retail pharmacies via a connecting computer network. [1] Currently, the EHCS is connected to all the priority medical institutions in the country---those in the most highly populated cities and regions. Security and confidentiality of information are prioritized, and only persons authorized by medical institutions may access the system to obtain and revise information on the holder of a health card. [1] While the EHCS is being extended to facilities over the national territory, the information systems at the priority medical facilities already apply the DICOM, PACS and Laboratory Information System (LIS) standards, such as for data archiving and transfer. According to the health ministry, nearly 200 personnel have been trained in the use of the system.[2]

The World Health Organization (WHO)'s latest scorecard on the state of e-health in Azerbaijan, dating from 2015, indicates that EHRs are used in 50-75% of the nation's primary care facilities (e.g. clinics and health care centres) and in 25-50% of its secondary care facilities (e.g. hospitals, emergency care). [3]

More recent evidence is available from the European Commission's HiQSTEP Project, whose 2017 eHealth Study Report indicates that Azerbaijan with support from the World Bank has since 2011 been working on developing an integrated health

information system to unite siloed systems such as the citizen's ID health card system, the hospital management information system, the Infectious disease reporting system and the blood bank system. The study states that the citizen's ID health card system is linked to the health insurance system and is connected to 76 hygiene and epidemiology centres and 95 medical examination "cabinets", with a total of 300,000 citizens having been registered in the ID card system up to the date of the study. The study does not indicate how many of these registered individuals are children and how many are adults. [4]

[1] Republic of Azerbaijan. Ministry of Health. E-Health. "Electronic Health Card System of Citizens." [<http://e-sehiyye.gov.az/en/s/12/Electronic+Health+Card+System+of+Citizens>] Accessed December 2020 and January 2021

[2] Republic of Azerbaijan. Ministry of Health. E-Health system. "Exemplary medical-information system." [<http://e-sehiyye.gov.az/en/s/9/Exemplary+medical-information+system>] Accessed January 2021

[3] World Health Organization (WHO). Global Observatory for eHealth (GOE). 2015. "Azerbaijan." [<https://www.who.int/goe/publications/atlas/2015/aze.pdf?ua=1>] Accessed December 2020

[4] Kantor Management Consultants, European Commission. HiQSTEP Project. December 2017. "HARMONISATION OF THE DIGITAL MARKETS IN THE EASTERN PARTNERSHIP: eHealth Study Report.

[<https://europa.eu/capacity4dev/file/74882/download?token=3FnJPZql>] Accessed 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 insufficient evidence that Azerbaijan applies data standards to ensure that the electronic health records (EHS) system is comparable with international standards, such as ISO.

Although the country is a member of the International Organization for Standardization (ISO), and has since 2017 operated its own standardisation body, known as the Azerbaijan Standardization Institute (AZSTAND), [1] there is as yet no direct evidence that the country mandates the enforcement of such standards in the collection of health and disease data. The website of AZSTAND provides no information on whether or not it certifies data standards for the country's health institutions. [2]

Azerbaijan's electronic health records system is run by the Ministry of Health. Launched in 2007, the system has focused on distributing e-health cards to infants and children. Clinical data on patients are also processed electronically, through a medical-information system used by hospitals, polyclinics and other medical institutions. Archiving and transfer systems apply the DICOM, PACS and Laboratory Information System (LIS) standards to automate the work of laboratory examination. Extension of the system is ongoing. It is unclear, however, how much of the national healthcare and laboratory system currently is covered by this initiative, or what data standard, if any, this system uses. [3, 4, 5]

In reference to national e-health standards, the website of the Ministry of Health's Centre for Public Health and Reforms (ISIM--the national public health institute) provides two guides, on the ISO 13940: 2015 and ISO/HL7 10781 health informatics standards, presumably for the use of public-sector e-health entities. However, there is no readily available evidence that such standards have been officially mandated for use, or are even being applied in the country. [6]

The World Health Organization (WHO)'s latest scorecard on the state of e-health in Azerbaijan, dating from 2015, indicates that the country has no policy governing the use of big data in the health sector. [7]

- [1] International Organization for Standardization (ISO). "AZSTAND: Azerbaijan." [https://www.iso.org/member/1690.html] Accessed December 2020
- [2] Republic of Azerbaijan. Azerbaijan Standardization Institute (AZSTAND). Website. [http://www.azstand.gov.az/] Accessed December 2020
- [3] Republic of Azerbaijan. Ministry of Health. E-Health. "Electronic Health Card System of Citizens." [http://e-sehiyye.gov.az/en/s/12/Electronic+Health+Card+System+of+Citizens] Accessed December 2020
- [4] Republic of Azerbaijan. Ministry of Health. E-Health system. "Exemplary medical-information system." [http://e-sehiyye.gov.az/en/s/9/Exemplary+medical-information+system] Accessed December 2020
- [5] Republic of Azerbaijan. Ministry of Health. E-Health system. "Electronic observation system of infectious diseases." [http://e-sehiyye.gov.az/en/s/10/Electronic+observation+system+of+infectious+diseases] Accessed December 2020
- [6] Republic of Azerbaijan. Ministry of Health. Center for Public Health and Reforms (ISIM). 2020. "STANDARDS (STANDARTLAR)." Website. [https://www.isim.az/az/pages/51-Standartlar] Accessed January 2021
- [7] World Health Organization (WHO). Global Observatory for eHealth (GOE). 2015. "Azerbaijan." [https://www.who.int/goe/publications/atlas/2015/aze.pdf?ua=1] Accessed December 2020 Other sources: Z Rasulzade, R Ismayilova, N Mursalova and T Veliyev. 2019. Abstract. "Enhancement of disease reporting after implementation of the electronic integrated disease surveillance system in Azerbaijan." 12th Edition of International Conference on Infectious Diseases. Journal of Infectious Diseases and Treatment. [https://www.imedpub.com/proceedings/enhancement-of-disease-reporting-after-implementation-of-the-electronic-integrated-disease-surveillance-system-in-azerba-7389.html] Accessed 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: 1

In Azerbaijan an established mechanism is in place at the ministries responsible for animal, human and wildlife surveillance to share data on infectious diseases.

This mechanism, called the Electronic Integrated Disease Surveillance System (EIDSS), an electronic reporting system introduced by the U.S. government's Cooperative Biological Engagement Program (CBEP), part of the Cooperative Threat Reduction (CTR) Program of the U.S. Department of Defense's Defense Threat Reduction Agency (DTRA), active in Azerbaijan since 2005. [1] The EIDSS system is used as a national electronic reporting system for human and veterinary disease. EIDSS has been implemented at the Ministry of Health since 2010 and at the Ministry of Agriculture since 2011. [2]

For human disease, Azerbaijan's Ministry of Health operates an electronic surveillance system for infectious diseases at both the national and sub-national level. It collects and analyses information on infectious diseases. Over 70 medical institutions of the sanitary-epidemiological service of Azerbaijan are connected to the system. Data are entered by the district or municipal Hygiene and Epidemiology centers upon discovery of a case of infectious disease, and then transferred for processing, storage and analysis to the central database of the Republic Hygiene and Epidemiology Centre (RAPS) in Baku. [1, 2]

For animal and zoonotic disease, Azerbaijan operates a parallel system, run by the Ministry of Agriculture. The ministry's

entities responsible for the collection and reporting of data include the Agrarian Services Agency (ASA) which, among other tasks, collects samples to diagnose diseases, [4] and the Antiepidemiological Expedition, which collects epidemiological data from the field. [2]

To consolidate and rationalize legacy information systems, In December 2019 a presidential decree set the regulatory framework for the country's modernized electronic agriculture information system, known by its Azeri acronym ECTIS. By this decree, information exchange between ECTIS and other state information systems and resources is carried out through the central government data clearing-house, known as the Electronic Government Information System (EHIS). The decree mandates the use of a dedicated portal, called EKTIS, by registered users to report agricultural data from the field, including data on disease. The system pertains to the livestock industry rather than to wild animals. [5]

[1] Saida Aliyeva, Peter Flanagan, April Johnson and Lisa Strelow. 2016. "Toward the Development of a Sustainable Scientific Research Culture in Azerbaijan (2011-2015)". *Front. Public Health*, 04 July 2016.

[<https://www.frontiersin.org/articles/10.3389/fpubh.2016.00144/full>] Accessed December 2020 and January 2021

[2] World Organization for Animal Health (OIE). "Animal health control system in Azerbaijan." 2020. [https://rr-europe.oie.int/wp-content/uploads/2020/03/3_animal-disease-control-situation-in-azerbaijan_ahs_2020.pdf] Accessed December 2020 and January 2021

[3] Republic of Azerbaijan. Ministry of Health. E-Health system. "Electronic observation system of infectious diseases." [<http://e-sehiyye.gov.az/en/s/10/Electronic+observation+system+of+infectious+diseases>] Accessed December 2020

[4] Republic of Azerbaijan. Ministry of Agriculture. Agrarian Services Agency. "About us (Haqqımızda)." [<http://axa.gov.az/agentlik/haqqimizda>] Accessed December 2020

[5] Republic of Azerbaijan. Presidency of the Republic. 2019. "Decree No. 897 dated December 23, 2019: REGULATION on the "Electronic agriculture" information system (2019-cu il 23 dekabr tarixli 897 nömrəli Fərmanı: "Elektron kənd təsərrüfatı" informasiya sistemi haqqında ƏSASNAMƏ)." [<http://www.e-qanun.az/framework/43940>] Accessed January 2021

2.4.3 Transparency of surveillance data

2.4.3a

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

Yes = 1 , No = 0

Current Year Score: 0

Available evidence is insufficient that Azerbaijan makes de-identified health surveillance data on disease outbreaks publicly available on a consistent basis, via reports (or other format) on government websites such as that of the Ministry of Health.

The most comprehensive and publicly available report containing health surveillance data in the country is the Statistical Yearbook of Azerbaijan, published annually by the State Statistical Committee, the national statistics agency. The yearbook for 2020 together with a contemporaneous carve-out report on healthcare, social protection and housing conditions provide the most recently collected, de-identified health surveillance data (for 2019). Both documents provide comparative data on morbidity, including from infectious disease, for the years 2005, 2010, 2015, 2018 and 2019. Infectious diseases listed in the morbidity tables include anthrax, brucellosis, influenza, rubella, salmonella and typhoid. [1]

The websites of the Ministry of Health and that of its Centre for Public Health and Reforms (ISIM--the national public health institute), do not routinely provide healthcare data. [2, 3]

Azerbaijan according to the WHO has not reported a public health emergency from an infectious disease outbreak since 2006. [4]

[1] Republic of Azerbaijan. State Statistical Committee of the Republic of Azerbaijan. 2020. Statistical Publications. "E-versions of publications (Nəşrlərin e-versiyaları)." [https://www.stat.gov.az/menu/6/statistical_yearbooks/] Accessed January and April 2021

[2] Republic of Azerbaijan. Ministry of Health. 2020. Website. [http://health.gov.az/] Accessed December 2020

[3] Republic of Azerbaijan. Ministry of Health. Center for Public Health and Reforms (ISIM). 2020. Website. [https://isim.az/en/main] Accessed December 2020

[4] World Health Organization (WHO). "Emergencies preparedness, response: Azerbaijan".

[https://www.who.int/csr/don/archive/country/aze/en/] Accessed 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: 1

Azerbaijan makes de-identified COVID-19 surveillance data (including details such as daily case count, mortality rate, etc) available via daily reports on at least one government website.

The Cabinet of Ministers operates a dedicated website, KoronaVirusInfo, which includes a wealth of information on the disease, including daily news and situational updates, informational videos, statistical data and telephone "hotline" numbers. On the Statistics webpage is a data "dashboard", updated daily and displaying six numerical case indicators: infected, recovered, newly infected, actively under treatment, deceased, and tested. Cumulative statistics are also available, including surveillance data in schematic form. [1]

Among other key government entities, the Ministry of Health's Centre for Public Health and Reforms (ISIM--the national public health institute), has a dedicated webpage on the coronavirus. Focusing on the public health aspects of the disease, it does not display surveillance data but directs the page visitor to the aforementioned dedicated COVID-19 website. [2]

[1] Republic of Azerbaijan. Cabinet of Ministers.KoronaVirusInfo. 2021. Website. [https://koronavirusinfo.az/az] Accessed December 2020 and January 2021

[2] Republic of Azerbaijan. Ministry of Health. Center for Public Health and Reforms (ISIM). 2020. "INFORMATION ABOUT CORONAVIRUS (KORONAVIRUS HAQQINDA MƏLUMATLAR)." [https://isim.az/az/pages/55-Koronavirus] Accessed December 2020 and January 2021

2.4.4 Ethical considerations during surveillance

2.4.4a

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

Yes = 1 , No = 0

Current Year Score: 0

There is insufficient evidence that Azerbaijan has a law that safeguards the confidentiality of personal health data.

This law, Law (998-IIIQ) of May 11 2010 "On personal information", regulates the collection, processing and protection of personal data in the country. It defines the rights and obligations of public authorities, individuals and legal entities involved with the use of such data. The law divides personal data into confidential and public categories, and conveys significant rights to the data subject, enabling him/her to enquire about how the relevant personal data are being used, as well as request that the collection and processing of such data about him/her be prohibited. [1]

According to the law, information on individual health is a part of personal data protected by the law. However, the law's protections do not appear to be applicable to health data on the whole. In section 5.1.2, the law notes that the unconsented transfer of individual's personal data including "life and health of the data subject" is prohibited. In principle, it also notes that "The collection, processing, and protection of Personal Data must not create danger to life, health, or cause humiliation of honour and dignity of persons." [2]

Finally, neither the Ministry of Health nor the ISIM, the Centre of Public Health and Reforms, indicate that they have put in place rules to guard the confidentiality of personal patient data. [3, 4]

[1] Ismail Askerov. December 2020. "Azerbaijan - Data Protection Overview." OneTrust DataGuidance. [https://www.dataguidance.com/notes/azerbaijan-data-protection-overview] Accessed January 2021

[2] Republic of Azerbaijan. Presidency of the Republic. May 11 2010. "LAW OF THE REPUBLIC OF AZERBAIJAN on personal information (Fərdi məlumatlar haqqında AZƏRBAYCAN RESPUBLİKASININ QANUNU)." [http://www.e-qanun.az/framework/19675] Accessed December 2020 and January 2021

[3] Republic of Azerbaijan. Ministry of Health. 2020. Website. [http://health.gov.az/] Accessed December 2020

[4] Republic of Azerbaijan. Ministry of Health. Center for Public Health and Reforms (ISIM). 2020. Website. [https://isim.az/en/main] Accessed 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

Azerbaijan's law on safeguarding the confidentiality of personal data does not specifically address data collection in the healthcare sector.

While this law, Law 998-IIIQ of May 11 2010 entitled "On personal information", does mandate protection of such data against threats, it does not explicitly define them or mention cyber attacks (e.g., ransomware). [1, 2] According to the Ministry of Communications and High Technologies, data protection measures under this law include preventive measures against destruction, loss and falsification of data, as well as against unauthorized acts connected with the destruction, modification, copying and isolation of data. [3]

Finally, neither the Ministry of Health nor the ISIM, the Centre of Public Health and Reforms, indicate that they have put in place rules to safeguard the confidentiality of personal patient data. [4, 5]

- [1] Ismail Askerov. December 2020. "Azerbaijan - Data Protection Overview." OneTrust DataGuidance. [<https://www.dataguidance.com/notes/azerbaijan-data-protection-overview>] Accessed January 2021
- [2] Republic of Azerbaijan. Presidency of the Republic. May 11 2010. "LAW OF THE REPUBLIC OF AZERBAIJAN on personal information (Fərdi məlumatlar haqqında AZƏRBAYCAN RESPUBLİKASININ QANUNU)." [<http://www.e-qanun.az/framework/19675>] Accessed December 2020 and January 2021
- [3] Faig Farmanov. 14-15 December 2016. "Data Protection systems in the Republic of Azerbaijan". Cyber Security Center, Ministry of Communications and High Technologies. PowerPoint presentation. [<https://rm.coe.int/16806ee927>] Accessed December 2020 and January 2021
- [4] Republic of Azerbaijan. Ministry of Health. 2020. Website. [<http://health.gov.az/>] Accessed December 2020
- [5] Republic of Azerbaijan. Ministry of Health. Center for Public Health and Reforms (ISIM). 2020. Website. [<https://isim.az/en/main>] Accessed 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

Although there is evidence of a commitment to share surveillance data generally, there is no evidence that Azerbaijan's government has made a commitment to share surveillance data with other countries in the region during a public health emergency for one or more diseases.

Azerbaijan participates in a number of surveillance networks, including CAESAR, the Central Asian and Eastern European Surveillance of Antimicrobial Resistance. CAESAR "...is a network of national AMR surveillance systems and includes all countries of the WHO European Region that are not part of the European Antimicrobial Resistance Surveillance Network (EARS-Net), which is coordinated by the European Centre for Disease Prevention and Control in the European Union." However, there is no evidence of a specific commitment to share data through CAESAR during a public health emergency. [1,2]

Neither the Ministry of Health nor the ISIM, the Centre of Public Health and Reforms, indicate that they have concluded a cross-border or international agreement to share such data during a public health emergency. [3, 4]

- [1] 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 December 2020 and January 2021
- [2] World Health Organization (WHO). "Central Asian and Eastern 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 December 2020 and January 2021
- [3] Republic of Azerbaijan. Ministry of Health. 2020. "Agreements and protocols (Sazişlər və protokollar)." [http://sehiyye.gov.az/sazisler_ve_protokollar.html] Accessed December 2020
- [4] Republic of Azerbaijan. Ministry of Health. Center for Public Health and Reforms (ISIM). 2020. Website. [<https://isim.az/en/main>] Accessed December 2020

2.5 CASE-BASED INVESTIGATION

2.5.1 Case investigation and contact tracing

2.5.1a

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

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

Current Year Score: 0

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

According to the COVID-19 Health System Response Monitor (a joint effort of the WHO, the European Commission and the European Observatory on Health Systems and Policies), in the face of the COVID-19 outbreak, Azerbaijan did activate its 2008 influenza plan—its only stand-alone policy plan to respond to an epidemic or pandemic health emergency—but had to "revisit" it due to its limited scope. The country's authorities adapted the plan to the current circumstances, devising a surveillance strategy "based on the rapid identification and isolation of suspected cases and contact tracing...Surveillance for COVID-19 is conducted jointly by TABIB (Management Union of the Medical Territorial Unions) under the State Mandatory Health Insurance Agency and the Ministry of Health." Under Order 377 of 21 July 2020, TABIB collects data on new cases, which it then transmits to the Ministry for analysis. TABIB and the Republican Center for Hygiene and Epidemiology conduct contact tracing, implementing it immediately upon identification of a COVID-19 case. An e-Health database has been made available for the use of epidemiologists for contact tracing. A free downloadable "e-TABIB" mobile phone application has been introduced as a tool for the use of individuals who are likely to have been exposed to COVID-19. [1] However, there is no evidence of national resources made available at the subnational level.

[1] World Health Organization (WHO) Regional Office for Europe, European Commission and European Observatory on Health Systems and Policies. COVID-19 Health System Response Monitor. 2020 and 2021. "Azerbaijan."

[<https://www.covid19healthsystem.org/countries/azerbaijan/livinghit.aspx?Section=1.1%20Health%20communication&Type=Section>] Accessed December 2020 and January and April 2021

2.5.1b

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

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

Current Year Score: 0

There is insufficient evidence indicating that Azerbaijan provides wraparound services to enable infected people and their contacts to self-isolate as recommended, specially economic support (paycheck, job security) and medical attention.

Azerbaijan has legally instituted a mandatory social health insurance scheme (MSHI), but it is still in the preliminary stage of implementation through pilot programs. Under the MSHI, the State Agency on Mandatory Health Insurance provides the

following benefits: first aid and emergency medical care; primary healthcare; outpatient services; inpatient services; instrumental diagnostics and laboratory services; physiotherapy; and surgeries (lifesaving and expensive medical services). [1] Outpatient care is offered by specialized outpatient clinics and there is little evidence of home-care services (other than house calls by doctors) being covered under the MSHI. [1] Over 2021, the government plans to extend the MSHI to all parts of the country, effectively ending the pilot programs. [2]

A study published by the World Bank in 2018 found that in Azerbaijan the government spends less, and households spend more out-of-pocket, on healthcare than in any other of the post-Soviet states. The study notes that, "Although in principle all health consultations in public facilities are meant to be free of charge, in practice most patients continue to provide payments (often informal) to medical personnel. Health personnel working in public facilities are paid through salaries. However, these salaries remain low." [3] In any case, a key problem of funding the MSHI and disbursing benefits is that most Azerbaijani workers (around 2/3 of the total) are not enrolled in the formal sector. [3]

In response to the outbreak of the COVID-19 coronavirus pandemic, the government in Azerbaijan has adopted several relief measures relevant to public health. The most important of the social-protection measures are: continuation of payments of salaries to employees working from home; provision of a lump-sum payment for 600,000 unemployed persons; expansion of the unemployment insurance coverage to 20,000 persons; extension of the payment of targeted state social assistance to low-income families until the 1st day of the month following the end of the quarantine regime; and (perhaps most relevant to the question) an increase in salaries by 3 to 5 times for first-line medical staff during the period of the pandemic. But available evidence does not indicate that any of the adopted monetary measures otherwise explicitly target persons forced to self-isolate as a result of the crisis. [4]

Finally, neither the Ministry of Health nor its Centre for Public Health and Reforms (ISIM--the national public health institute) provide evidence that they as of yet contribute to the national provision of wraparound services. [5, 6]

[1] Republic of Azerbaijan. State Agency on Mandatory Health Insurance. 2021. "Benefit package."

[<https://its.gov.az/page/benefit-package-2>] Accessed January 2021

[2] Republic of Azerbaijan. State Agency on Mandatory Health Insurance. December 23 2020. "Starting January 1, mandatory health insurance will be introduced in 36 cities and regions." [<https://its.gov.az/bloq/starting-january-1-mandatory-health-insurance-will-be-introduced-in-36-cities-and-regions>] Accessed December 2020 and January 2021

[3] Bonilla-Chacin, M.E., Afandiyeva, G., and Suaya, A. 2018. "Challenges on the Path to Universal Health Coverage: The Experience of Azerbaijan". Universal Health Care Coverage Series 28, World Bank Group.

[<https://openknowledge.worldbank.org/bitstream/handle/10986/29180/WP-RDC-Azerbaijan-case-study-pages-fixed-PUBLIC.pdf?sequence=1&isAllowed=y>] Accessed December 2020 and January 2021

[4] Office of the United Nations High Commissioner for Human Rights (OHCHR). Undated. "COVID-19 response measures in the Republic of Azerbaijan." [<https://www.ohchr.org/Documents/Events/GoodPracticesCoronavirus/azerbaijan-submission-covid19.pdf>] Accessed December 2020 and January and April 2021

[5] Republic of Azerbaijan. Ministry of Health. 2020. Website. [<http://health.gov.az/>] Accessed January 2021

[6] Republic of Azerbaijan. Ministry of Health. Center for Public Health and Reforms (ISIM). 2020. Website.

[<https://isim.az/en/main>] Accessed January 2021 Other sources: World Health Organization (WHO) Regional Office for Europe, European Commission and European Observatory on Health Systems and Policies. COVID-19 Health System Response Monitor. 2020. "Azerbaijan."

[<https://www.covid19healthsystem.org/countries/azerbaijan/livinghit.aspx?Section=1.1%20Health%20communication&Type=Section>] Accessed December 2020 and January and April 2021

2.5.1c

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

Yes = 1, No = 0

Current Year Score: 0

Evidence does not indicate that Azerbaijan makes de-identified data on contact tracing efforts for COVID-19 (including the percentage of new cases from identified contacts) available via daily reports (or other format) on government websites. Other relevant data and metrics are reported on a daily basis.

The Cabinet of Ministers operates a dedicated website, KoronaVirusInfo, which includes a wealth of information on the disease, including daily news and situational updates, informational videos, statistical data and telephone "hotline" numbers. On the Statistics webpage is a data "dashboard", updated daily and displaying six numerical case indicators: infected, recovered, newly infected, actively under treatment, deceased, and tested. Cumulative statistics are also available, including surveillance data in schematic form. If data are obtained from contact tracing efforts, they are not broken out into a separate category on this website. [1]

Among other key government entities, the Ministry of Health's Centre for Public Health and Reforms (ISIM--the national public health institute), has a dedicated webpage on the coronavirus. Focusing on the public health aspects of the disease, it does not display surveillance data but directs the page visitor to the aforementioned dedicated COVID-19 website. [2]

[1] Republic of Azerbaijan. Cabinet of Ministers.KoronaVirusInfo. 2021. Website. [<https://koronavirusinfo.az/az>] Accessed December 2020 and January 2021

[2] Republic of Azerbaijan. Ministry of Health. Center for Public Health and Reforms (ISIM). 2020. "INFORMATION ABOUT CORONAVIRUS (KORONAVIRUS HAQQINDA MƏLUMATLAR)." [<https://isim.az/az/pages/55-Koronavirus>] Accessed December 2020 and January 2021

2.5.2 Point of entry management

2.5.2a

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

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

Current Year Score: 0

Evidence is insufficient of a joint plan or cooperative agreement in Azerbaijan between the public health system and border control authorities to identify suspected and potential cases in international travelers and trace and quarantine their contacts in the event of an active or future public health emergency. A scan of legislation applicable to the Ministry of Health, its Centre for Public Health and Reforms (ISIM--the national public health institute), and the State Border Service reveals no evidence of such an agreement between these authorities in relation to this issue. [1, 2, 3]

In response to the COVID-19 outbreak, the government instituted restrictions and in some circumstances outright bans on international travel. As of March 2021, such measures remain in place. For those few individuals able to obtain a special visa

during the crisis, a negative COVID-19 test (PCR) is required for entry, and health screening procedures are in place at airports and other ports of entry; arriving visitors are screened by border authorities and are required to stay in government-provided quarantine facilities for 14-21 days or 21-28 days depending on requirements. [5, 6, 7, 8]

Azerbaijan has also adopted a surveillance strategy based on the rapid identification and isolation of suspected cases. Surveillance for COVID-19—including contact tracing—is conducted jointly by TABIB (Management Union of the Medical Territorial Unions) under the State Mandatory Health Insurance Agency and the Ministry of Health. TABIB collects data on new cases, which it then transmits to the ministry for analysis. TABIB and the Republican Center for Hygiene and Epidemiology conduct contact tracing, implementing it immediately upon identification of a COVID-19 case.

Otherwise, Azerbaijan has only one stand-alone policy plan in place to respond to an epidemic or pandemic health emergency, and it applies only to one disease—influenza. This plan, the National Influenza Pandemic Preparedness Plan of 2008, stipulates that "necessary measures" be taken at border points but does not elaborate. It also mandates measures such as isolation and quarantine of suspected and confirmed cases. However, it does not tie these two types of control strategies to one another. [4]

[1] Republic of Azerbaijan. Ministry of Health. 2021. Website. [<http://health.gov.az/>] Accessed December 2020 and January and April 2021

[2] Republic of Azerbaijan. Ministry of Health. Center for Public Health and Reforms (ISIM). 2020. Website. [<https://isim.az/en/main>] Accessed December 2020 and January 2021

[3] Republic of Azerbaijan. State Border Service. 2021. Website. [<http://www.dsx.gov.az/>] Accessed December 2020 and January and April 2021

[4] Republic of Azerbaijan. Ministry of Health. August 8 2008. "NATIONAL INFLUENZA PANDEMIC PREPAREDNESS PLAN OF THE REPUBLIC OF AZERBAIJAN". [http://sehiyye.gov.az/files/pdf/PPP_OF_AZERBAIJAN_Eng.pdf] Accessed December 2020 and January 2021

[5] Travelbans.org. "AZERBAIJAN TRAVEL RESTRICTIONS." [<https://travelbans.org/asia/azerbaijan/>] Accessed January 2021

[6] Azerbaijan Travel. 2021. "COVID-19 Restrictions & Advisory." [<https://azerbaijan.travel/covid-19-en>] Accessed January 2021

[7] U.S. Embassy in Azerbaijan. December 12 2020. "COVID-19 Information for Azerbaijan." [<https://az.usembassy.gov/covid-19-information-for-azerbaijan/>] Accessed January 2021

[8] World Health Organization (WHO) Regional Office for Europe, European Commission and European Observatory on Health Systems and Policies. COVID-19 Health System Response Monitor. 2020. "Azerbaijan." [<https://www.covid19healthsystem.org/countries/azerbaijan/livinghit.aspx?Section=1.1%20Health%20communication&Type=Section>] Accessed December 2020 and January and April 2021 Other sources: World Health Organization (WHO) Regional Office for Europe. August 11 2020. "Azerbaijan response to COVID-19: better testing and contact tracing are key." [<https://www.euro.who.int/en/health-topics/health-emergencies/coronavirus-covid-19/news/news/2020/8/azerbaijan-response-to-covid-19-better-testing-and-contact-tracing-are-key>] Accessed December 2020 and January 2021

2.6 EPIDEMIOLOGY WORKFORCE

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

2.6.1a

Does the country meet one of the following criteria?

- Applied epidemiology training program (such as FETP) is available in country
- Resources are provided by the government to send citizens to another country to participate in applied epidemiology training programs (such as FETP)

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

Current Year Score: 1

Although there is insufficient evidence that Azerbaijan has a national FETP programme, Azerbaijan does provide support for citizens to attend applied field epidemiology training programme (FETP) in neighbouring Georgia.

The programme, called the South Caucasus Field Epidemiology and Laboratory Training Program (SC-FELTP), trains students from Georgia, Azerbaijan, Armenia, as well as Ukraine, in a two-year residency program in interventional epidemiology. From 2009 to 2017, the programme was funded by the U.S. Department of Defense's Defense Threat Reduction Agency, and in 2018, it was transitioned to the Georgian government and Tbilisi State Medical University. [1]

Azerbaijan supports its citizens in attending this FETP program, but it is not clear if the support includes a financial component. Available evidence suggests that the Azerbaijani Ministry of Health may fund, or contribute to funding, the SC-FELTP program. The ministry's website gives examples of programs to sponsor medical residents for study abroad, but it is unclear if such initiatives are consistent and continue into the present. [2]

[1] TEPHINET. "South Caucasus Field Epidemiology and Laboratory Training Program." [https://www.tephinet.org/training-programs/south-caucasus-field-epidemiology-and-laboratory-training-program] Accessed December 2020 and January 2021

[2] Republic of Azerbaijan Ministry of Health. "Training abroad (Xaricde telimlar)". [http://health.gov.az/xaricde-telimlar/] Accessed December 2020 and January 2021

2.6.1b

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

Yes = 1 , No = 0

Current Year Score: 1

There is evidence that the applied field epidemiology training programme (FETP) available to Azerbaijan is inclusive of animal health professionals.

Azerbaijan participates in an FETP programme available in neighbouring Georgia. The programme, called the South Caucasus Field Epidemiology and Laboratory Training Program (SC-FELTP), trains students from Georgia, Azerbaijan, Armenia, as well as Ukraine, in a two-year residency program in interventional epidemiology. From 2009 to 2017, the programme was funded by

the U.S. Department of Defense's Defense Threat Reduction Agency, and in 2018, it was transitioned to the Georgian government and Tbilisi State Medical University. [1] Evidence indicates that the SC-FELTP programme is inclusive of animal health professionals.

TEPHINET states that the programme has trained "epidemiologists, clinicians, laboratory technicians, and veterinarians" and that successful programmes include: "regional anthrax collaboration and laboratory strengthening, detection, and control, which reduced anthrax significantly among humans and animals" and "evaluation of brucellosis vaccination." [1]

[1] TEPHINET. "South Caucasus Field Epidemiology and Laboratory Training Program." [https://www.tephinet.org/training-programs/south-caucasus-field-epidemiology-and-laboratory-training-program] Accessed December 2020 and January 2021

2.6.2 Epidemiology workforce capacity

2.6.2a

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

Yes = 1, No = 0

Current Year Score: 0

2020

Completed JEE assessments; Economist Impact analyst qualitative assessment based on official national sources, which vary by country

Category 3: Rapid response to and mitigation of the spread of an epidemic

3.1 EMERGENCY PREPAREDNESS AND RESPONSE PLANNING

3.1.1 National public health emergency preparedness and response plan

3.1.1a

Does the country have an overarching national public health emergency response plan in place which addresses planning for multiple communicable diseases with epidemic or pandemic potential?

Evidence that there is a plan in place, and the plan is publicly available = 2, Evidence that the plan is in place, but the plan is not publicly available OR, Disease-specific plans are in place, but there is no evidence of an overarching plan = 1, No evidence that such a plan or plans are in place = 0

Current Year Score: 1

Azerbaijan has one single national public health emergency response plan in place (the National Influenza Pandemic Preparedness Plan of 2008) which addresses planning for at least one communicable disease with pandemic potential. Although this plan does not specifically state that it is applicable to planning for other diseases with pandemic potential, [1] it has been "revisited" by the health authorities as an administrative framework to combat the current COVID-19 coronavirus pandemic. [5]

Otherwise, the basic law on fighting infectious diseases, "On Immunoprophylaxis of Infectious Diseases", makes minimal mention of epidemics, stating only in Article 5 that the relevant executive authority will determine the treatment and administration of prophylactic vaccines in the event of an epidemic. The law was issued in 2000 and has been amended only very slightly since then. [2, 3]

Finally, Azerbaijan has a Ministry of Emergency Situations, but it is primarily concerned with civil defense, rather than public health, measures. [4]

[1] Republic of Azerbaijan. Ministry of Health. 2008. "NATIONAL INFLUENZA PANDEMIC PREPAREDNESS PLAN OF THE REPUBLIC OF AZERBAIJAN". [http://sehiyye.gov.az/files/pdf/PPP_OF_AZERBAIJAN_Eng.pdf] Accessed December 2020

[2] Republic of Azerbaijan. Ministry of Health. "The Law of the Republic of Azerbaijan "On Immunoprophylaxis of Infectious Diseases ("Yoluxucu xəstəliklərin immunoprofilaktikası haqqında" Azərbaycan Respublikasının Qanunu)." [http://sehiyye.gov.az/yoluxucu_xesteliklerin_haqqnda.html] Accessed December 2020

[3] Republic of Azerbaijan. Ministry of Health. 2000. "On Immunoprophylaxis of Infectious Diseases (Yoluxucu xəstəliklərin immunoprofilaktikası haqqında)." Text as amended 2008, 2014. [<http://sehiyye.gov.az/files/pdf/qanun/857.pdf>] Accessed December 2020

[4] Republic of Azerbaijan. Ministry of Emergency Situations. "Activity fields." [<http://www.fhn.gov.az/?eng/menu/20>] Accessed December 2020

[5] World Health Organization (WHO) Regional Office for Europe, European Commission and European Observatory on Health Systems and Policies. COVID-19 Health System Response Monitor. 2020. "Azerbaijan."

[<https://www.covid19healthsystem.org/countries/azerbaijan/livinghit.aspx?Section=1.1%20Health%20communication&Type=Section>] Accessed January 2021

3.1.1b

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

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

Current Year Score: 0

Available evidence does not indicate that Azerbaijan has a national public health emergency response plan, updated in the last three years, which addresses planning for multiple communicable diseases with pandemic potential. The country has one such stand-alone plan, the National Influenza Pandemic Preparedness Plan of 2008. It gives no indication of being applicable to planning for other diseases with pandemic potential. [1]

The basic law on fighting infectious diseases, "On Immunoprophylaxis of Infectious Diseases", makes minimal mention of epidemics, stating only in Article 5 that the relevant executive authority will determine the treatment and administration of prophylactic vaccines in the event of an epidemic. The law was issued in 2000 and has been amended only very slightly since then (lastly, in 2014). [2, 3]

Finally, Azerbaijan has a Ministry of Emergency Situations, but it is primarily concerned with civil defense, rather than public health, measures. [4]

[1] Republic of Azerbaijan. Ministry of Health. 2008. "NATIONAL INFLUENZA PANDEMIC PREPAREDNESS PLAN OF THE REPUBLIC OF AZERBAIJAN". [http://sehiyye.gov.az/files/pdf/PPP_OF_AZERBAIJAN_Eng.pdf] Accessed December 2020

[2] Republic of Azerbaijan. Ministry of Health. "The Law of the Republic of Azerbaijan "On Immunoprophylaxis of Infectious Diseases ("Yoluxucu xəstəliklərin immunoprofilaktikası haqqında" Azərbaycan Respublikasının Qanunu)." [

[http://sehiyye.gov.az/yoluxucu_xesteliklerin_haqqnda.html] Accessed December 2020

[3] Republic of Azerbaijan. Ministry of Health. 2000. "On Immunoprophylaxis of Infectious Diseases (Yoluxucu xəstəliklərin immunoprofilaktikası haqqında)." Text as amended 2008, 2014. [<http://sehiyye.gov.az/files/pdf/qanun/857.pdf>] Accessed December 2020

[4] Republic of Azerbaijan. Ministry of Emergency Situations. "Activity fields." [<http://www.fhn.gov.az/?eng/menu/20>] Accessed 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

Available evidence does not indicate that Azerbaijan has a national public health emergency response plan in place which addresses planning for multiple communicable diseases with pandemic potential.

The country has one stand-alone plan, for addressing influenza, called the National Influenza Pandemic Preparedness Plan. It dates from 2008. The plan does have a section for children, stipulating the use of special practices regarding the placement of paediatric patients in care facilities, stating that children may spread viruses for a longer period than adults. [1]

The basic law on fighting infectious diseases, "On Immunoprophylaxis of Infectious Diseases", makes minimal mention of epidemics, stating only in Article 5 that the relevant executive authority will determine the treatment and administration of prophylactic vaccines in the event of an epidemic. The law was issued in 2000 and has been amended only very slightly since then. [2, 3] It does not address specific vulnerable population groups such as children. [2, 3]

Finally, Azerbaijan has a Ministry of Emergency Situations, but it is primarily concerned with civil defense, rather than public health, measures. [4]

[1] Republic of Azerbaijan. Ministry of Health. 2008. "NATIONAL INFLUENZA PANDEMIC PREPAREDNESS PLAN OF THE REPUBLIC OF AZERBAIJAN". [http://sehiyye.gov.az/files/pdf/PPP_OF_AZERBAIJAN_Eng.pdf] Accessed December 2020

[2] Republic of Azerbaijan. Ministry of Health. "The Law of the Republic of Azerbaijan "On Immunoprophylaxis of Infectious Diseases ("Yoluxucu xəstəliklərin immunoprofilaktikası haqqında" Azərbaycan Respublikasının Qanunu)." [http://sehiyye.gov.az/yoluxucu_xesteliklerin_haqqnda.html] Accessed December 2020

[3] Republic of Azerbaijan. Ministry of Health. 2000. "On Immunoprophylaxis of Infectious Diseases (Yoluxucu xəstəliklərin immunoprofilaktikası haqqında)." Text as amended 2008, 2014. [<http://sehiyye.gov.az/files/pdf/qanun/857.pdf>] Accessed December 2020

[4] Republic of Azerbaijan. Ministry of Emergency Situations. "Activity fields." [<http://www.fhn.gov.az/?eng/menu/20>] Accessed 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

Available evidence does not indicate that Azerbaijan has specific mechanism(s) for engaging with the private sector to assist with outbreak emergency preparedness and response.

The country has one stand-alone national public health emergency response plan--for addressing influenza. It is called the National Influenza Pandemic Preparedness Plan and while it approves of the role of volunteer aid organisations it makes no specific provision for engaging with private-sector actors during such a public health crisis. [1]

The basic law on fighting infectious diseases, "On Immunoprophylaxis of Infectious Diseases", makes minimal mention of epidemics, stating only in Article 5 that the relevant executive authority will determine the treatment and administration of prophylactic vaccines in the event of an epidemic. The law does not address interaction with the private-sector entities. [2, 3]

Finally, Azerbaijan has a Ministry of Emergency Situations, but it is primarily concerned with civil defense, rather than public health, measures. [4]

[1] Republic of Azerbaijan. Ministry of Health. 2008. "NATIONAL INFLUENZA PANDEMIC PREPAREDNESS PLAN OF THE REPUBLIC OF AZERBAIJAN". [http://sehiyye.gov.az/files/pdf/PPP_OF_AZERBAIJAN_Eng.pdf] Accessed December 2020

[2] Republic of Azerbaijan. Ministry of Health. "The Law of the Republic of Azerbaijan "On Immunoprophylaxis of Infectious Diseases ("Yoluxucu xəstəliklərin immunoprofilaktikası haqqında" Azərbaycan Respublikasının Qanunu)."

[http://sehiyye.gov.az/yoluxucu_xesteliklerin_haqqnda.html] Accessed December 2020

[3] Republic of Azerbaijan. Ministry of Health. 2000. "On Immunoprophylaxis of Infectious Diseases (Yoluxucu xəstəliklərin immunoprofilaktikası haqqında)." Text as amended 2008, 2014. [<http://sehiyye.gov.az/files/pdf/qanun/857.pdf>] Accessed December 2020

[4] Republic of Azerbaijan. Ministry of Emergency Situations. "Activity fields." [<http://www.fhn.gov.az/?eng/menu/20>] Accessed 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: 1

There is some evidence than Azerbaijan has a policy and plan in place to implement non-pharmaceutical interventions (NPIs) during an epidemic or pandemic for influenza.

According to the World Health Organisation (WHO), the European Commission and the European Observatory on Health Systems and Policies, in the face of the COVID-19 outbreak Azerbaijan did activate its 2008 influenza plan but had to "revisit" it for the new disease due to its limited scope. Azerbaijan has also adopted a surveillance strategy based on the rapid identification and isolation of suspected cases. Surveillance for COVID-19--including contact tracing--is conducted jointly by TABIB (Management Union of the Medical Territorial Unions) under the State Mandatory Health Insurance Agency and the Ministry of Health. TABIB collects data on new cases, which it then transmits to the ministry for analysis. TABIB and the Republican Center for Hygiene and Epidemiology conduct contact tracing, implementing it immediately upon identification of a COVID-19 case. A mobile-phone "app" is now available for the contact-tracing use of individuals. [1]

The 2008 pandemic influenza plan does discuss the use of several NPIs, including social distancing, quarantine, and standard infection control mechanisms such as the wearing of infection-preventive PPE and clothing, and the cleaning and disinfection of vulnerable environments, such as hospital rooms. It prioritizes the use of such NPIs by healthcare personnel. Similar rules apply to other individuals, such as the relatives of people infected with pandemic influenza, who are to isolate themselves at home, "...including those contact persons, who receive anti-virus prophylactic preparations as an urgent prevention measure; the contact persons should be instructed to monitor themselves for occurrence of influenza symptoms..." However, the 2008 plan does not itself provide indication that its principles are applicable to outbreaks of other diseases or biological threats. [2]

[1] World Health Organization (WHO) Regional Office for Europe. August 11 2020. "Azerbaijan response to COVID-19: better testing and contact tracing are key." [https://www.euro.who.int/en/health-topics/health-emergencies/coronavirus-covid-19/news/news/2020/8/azerbaijan-response-to-covid-19-better-testing-and-contact-tracing-are-key] Accessed December 2020 and January 2021

[2] Republic of Azerbaijan. Ministry of Health. August 8 2008. "NATIONAL INFLUENZA PANDEMIC PREPAREDNESS PLAN OF THE REPUBLIC OF AZERBAIJAN". [http://sehiyye.gov.az/files/pdf/PPP_OF_AZERBAIJAN_Eng.pdf] Accessed December 2020 and January 2021

3.2 EXERCISING RESPONSE PLANS

3.2.1 Activating response plans

3.2.1a

Does the country meet one of the following criteria?

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

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

Current Year Score: 1

There is evidence that Azerbaijan has activated its national emergency response plan for an infectious disease outbreak in the past year. There is also evidence that it has completed a national-level biological threat-focused exercise over this time period.

While Azerbaijan has no comprehensive, stand-alone plan to address health emergencies, it has by force of recent circumstances activated its sole policy document readily available to deal with such crises; the National Influenza Pandemic Preparedness Plan of 2008. According to the COVID-19 Health System Response Monitor (a joint effort of the WHO, the European Commission and the European Observatory on Health Systems and Policies), in the face of the COVID-19 outbreak in early 2020 Azerbaijan "revisited" this plan, [1] which due to its limited scope had to be adapted to serve current circumstances, as it does not itself provide indication that its principles are applicable to outbreaks of other diseases or biological threats. [2]

Nevertheless, it is clear that, even in the absence of an overarching plan, by leveraging the 2008 influenza plan Azerbaijan's authorities have been able to meet the challenge of the COVID-19 coronavirus pandemic head-on. Operations for the coordinated government response to the pandemic are led by the Cabinet of Ministers, with other key entities participating, such as the State Mandatory Health Insurance Agency managing all the hospital facilities in the country and the Ministry of Health providing technical advice. Effective control and monitoring measures, including isolation and quarantine, medical testing and contact tracing, have been implemented. [3] Otherwise, neither the Ministry of Health nor the Ministry of Emergency Situations provide evidence that they have in place a comprehensive emergency-response plan to deal with outbreaks of infectious disease. [4, 5]

As regards completing a national-level biological threat-focused exercise, according to the World Health Organization (WHO), Azerbaijan conducted a simulation exercise (SimEx) from November 4 to November 8 2019. Details on the exercise are not readily available. [6]

[1] World Health Organization (WHO). Regional Office for Europe. 2019. "Investing for a safe and healthy Azerbaijan: WHO Health Emergencies Programme at the country level." [https://www.euro.who.int/__data/assets/pdf_file/0003/430680/03_Azerbaijan.pdf] Accessed December 2020 and January 2021

[2] Republic of Azerbaijan. Ministry of Health. August 8 2008. "NATIONAL INFLUENZA PANDEMIC PREPAREDNESS PLAN OF THE REPUBLIC OF AZERBAIJAN". [http://sehiyye.gov.az/files/pdf/PPP_OF_AZERBAIJAN_Eng.pdf] Accessed December 2020 and January 2021

[3] World Health Organization (WHO) Regional Office for Europe, European Commission and European Observatory on Health Systems and Policies. COVID-19 Health System Response Monitor. 2020. "Azerbaijan." [https://www.covid19healthsystem.org/countries/azerbaijan/livinghit.aspx?Section=1.1%20Health%20communication&Type=Section] Accessed December 2020 and January and April 2021

[4] Republic of Azerbaijan. Ministry of Emergency Situations. "Activity fields." [http://www.fhn.gov.az/?eng/menu/20] Accessed December 2020 and January 2021

[5] Republic of Azerbaijan. Ministry of Health. 2020. Website. [http://health.gov.az/] Accessed December 2020 and January 2021

[6] World Health Organization (WHO). Simulation Exercise. 2021. "SimEx Activities." [https://extranet.who.int/sph/simulation-exercise] Accessed December 2020 and January 2021

3.2.1b

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

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

Current Year Score: 1

There is evidence that Azerbaijan is currently identifying a list of gaps and best practices in order to develop a plan to improve health emergency response capacity (such a plan has not yet been published). Evidence of this activity comes from an outside agency, the World Health Organization (WHO), rather than from the government itself. Through its Health Emergencies Programme, the WHO's Regional Office for Europe is active in Azerbaijan, helping the authorities there to build national capacity in planning for and responding to such emergencies according to International Health Regulations (IHR) standards. [1]

The WHO indicates that Azerbaijan in 2019 conducted a self-assessment of its IHR core capacities, reporting that among the core capacities with most room for improvement, or gaps, is its National Health Emergencies Framework. With the cooperation of the WHO, Azerbaijan's effort in improving its level of health emergency preparedness focuses on identifying the country's high-priority public health risks, such as in hospital safety, infection prevention and control (IPC) and Emergency Risk Communication (ERC). For example, the WHO indicates that Azerbaijan has successfully completed three out of the five steps of the ERC capacity-building package including training, capacity mapping and plan writing. [1] In line with the self-assessment and gap-identification process, Azerbaijan conducted an After Action Review (AAR) with the WHO from October 16 2019 to October 18 2019, and a simulation exercise (SimEx) with it from November 4 to November 8 2019. While details on these exercises are not readily available, [2, 3] the WHO indicates that actions such as these undertaken by Azerbaijan form the foundation of a future National Action Plan for Health Emergency Preparedness. [1]

As Azerbaijan has not yet put into force a comprehensive, stand-alone plan to address health emergencies, the country's sole available stand-alone plan in this regard is the national influenza plan of 2008, which does not itself indicate that its principles are applicable to outbreaks of other diseases or biological threats. [4] Furthermore, neither the Ministry of Health nor the Ministry of Emergency Situations provide evidence that they have in place a comprehensive plan of this nature. [5, 6] Nevertheless, even in the absence of an overarching health emergency plan, Azerbaijan has been able to meet the challenges of the current COVID-19 pandemic outbreak head-on, by "revisiting" the 2008 influenza plan as an administrative framework to combat the disease. [7]

[1] World Health Organization (WHO). Regional Office for Europe. 2019. "Investing for a safe and healthy Azerbaijan: WHO Health Emergencies Programme at the country level." [https://www.euro.who.int/__data/assets/pdf_file/0003/430680/03_Azerbaijan.pdf] Accessed December 2020 and January 2021

[2] World Health Organization (WHO). Simulation Exercise. 2021. "SimEx Activities." [https://extranet.who.int/sph/simulation-exercise] Accessed December 2020 and January 2021

[3] World Health Organization (WHO). After Action Review. 2021. "AAR Activities." [https://extranet.who.int/sph/after-action-review] Accessed December 2020 and January 2021

[4] Republic of Azerbaijan. Ministry of Health. August 8 2008. "NATIONAL INFLUENZA PANDEMIC PREPAREDNESS PLAN OF THE REPUBLIC OF AZERBAIJAN". [http://sehiyye.gov.az/files/pdf/PPP_OF_AZERBAIJAN_Eng.pdf] Accessed December 2020 and January 2021

[5] Republic of Azerbaijan. Ministry of Emergency Situations. "Activity fields." [http://www.fhn.gov.az/?eng/menu/20]

Accessed December 2020 and January 2021

[6] Republic of Azerbaijan. Ministry of Health. 2020. Website. [<http://health.gov.az/>] Accessed December 2020 and January 2021

[7] World Health Organization (WHO) Regional Office for Europe, European Commission and European Observatory on Health Systems and Policies. COVID-19 Health System Response Monitor. 2020. "Azerbaijan."

[<https://www.covid19healthsystem.org/countries/azerbaijan/livinghit.aspx?Section=1.1%20Health%20communication&Type=Section>] Accessed December 2020 and January 2021

3.2.2 Private sector engagement in exercises

3.2.2a

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

Yes = 1 , No = 0

Current Year Score: 0

While evidence indicates that Azerbaijan has in the past year undergone more than one national-level biological threat-focused exercise, it does not show that these exercises have included private sector representatives. According to the World Health Organization (WHO), Azerbaijan conducted an After Action Review (AAR) with it from October 16 2019 to October 18 2019, and a simulation exercise (SimEx) with it from November 4 to November 8 2019. Details on these exercises are not readily available [1, 2] and there is insufficient evidence to determine if key stakeholders from Azerbaijan's private sector participated in them. At least in the case of AARs, evidence indicates that the WHO recommends the participation of private-sector representatives such as private laboratories, pharmaceutical companies and logistics providers, but does not require it. [3]

Finally, none of the four key government entities with potential responsibility for the conducting of such exercises--the Ministry of Health, its Centre of Public Health and Reforms (ISIM--the national public health institute), the Ministry of Agriculture and the Ministry of Emergency Situations--indicate that they maintain a policy to include private sector representatives in national-level biological threat-focused exercises. [4, 5, 6, 7]

[1] World Health Organization (WHO). Simulation Exercise. 2021. "SimEx Activities."

[<https://extranet.who.int/sph/simulation-exercise>] Accessed December 2020 and January 2021

[2] World Health Organization (WHO). After Action Review. 2021. "AAR Activities." [<https://extranet.who.int/sph/after-action-review>] Accessed December 2020 and January 2021

[3] World Health Organization (WHO). Strengthening health security by implementing the International Health Regulations (2005). 2019. "Guidance for after action review (&Irm;AAR)&Irm;." [<https://www.who.int/ihr/publications/WHO-WHE-CPI-2019.4/en/>] Accessed January 2021

[4] Republic of Azerbaijan. Ministry of Health. 2020. Website. [<http://sehiyye.gov.az/>] Accessed December 2020

[5] Republic of Azerbaijan. Ministry of Health. Center for Public Health and Reforms (ISIM). 2020. Website. [<https://isim.az/en/main>] Accessed December 2020

[6] Republic of Azerbaijan. Ministry of Agriculture. 2020. Website. [<http://www.agro.gov.az/>] Accessed December 2020

[7] Republic of Azerbaijan. Ministry of Emergency Situations. "Activity fields." [<http://www.fhn.gov.az/?eng/menu/20>] Accessed December 2020 and January 2021

3.3 EMERGENCY RESPONSE OPERATION

3.3.1 Emergency response operation

3.3.1a

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

Yes = 1 , No = 0

Current Year Score: 1

Azerbaijan has an Emergency Operations Centre, but it is not focused on managing public health emergencies. Called the Crisis Management Centre, it is part of the Ministry of Emergency Situations, which focuses on natural and manmade disasters, not infectious disease outbreaks. [1] The Centre's tasks are collecting, summarizing, analysing and making relevant decisions about the information received from various sources during a crisis. [2]

Although the World Health Organisation (WHO) states that a national Health Disaster Preparedness and Response Network has been established in the country as well as an Emergency Operations Centre at the Ministry of Health. [3] However, the ministry's website provides no evidence of the existence of such a unit there. [4]

Finally, it should be noted that an internet search in Azeri and English reveals little to no evidence of the existence of either the network or the operations center.

[1] Republic of Azerbaijan. Ministry of Emergency Situations. "Bodies: Crisis Management Centre".

[<http://www.fhn.gov.az/?eng/menu/65/192>] Accessed December 2020 and January 2021

[2] Republic of Azerbaijan. Ministry of Emergency Situations. Crisis Management Centre. "Areas of Activity (Fəaliyyət istiqamətləri)." [<https://www.fhn.gov.az/organizations.php?aze-14#services>] Accessed December 2020 and January 2021

[3] World Health Organization (WHO). Health emergencies. "Azerbaijan." [<https://www.euro.who.int/en/health-topics/health-emergencies/from-disaster-preparedness-and-response/country-work/azerbaijan>] Accessed December 2020 and January 2021

[4] Republic of Azerbaijan. Ministry of Health. "Structure of the Ministry (Nazirliyin Strukturu)".

[<http://sehiyye.gov.az/files/stuktur.jpg>] Accessed December 2020 and January 2021

3.3.1b

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

Yes = 1 , No = 0

Current Year Score: 0

Available evidence does not indicate that Azerbaijan's Emergency Operations Centre conducts/is required to conduct a drill at least once per year, for a public health emergency scenario or otherwise.

Known as the Crisis Management Centre, it is part of the Ministry of Emergency Situations, which focuses on natural and manmade disasters, not infectious disease outbreaks. [1] The Centre's tasks are collecting, summarizing, analysing and making relevant decisions about the information received from various sources during a crisis. Its dedicated website makes no mention of it conducting practice drills. [2] That said, its parent organisation, the ministry itself, does conduct training exercises. Many if not most of its training exercises relate to potential accidents and disasters in the national oil and gas

industry. [3]

Finally, Azerbaijan's Ministry of Health does not indicate that it conducts such emergency drills. [4]

[1] Republic of Azerbaijan. Ministry of Emergency Situations. "Bodies: Crisis Management Centre".

[<http://www.fhn.gov.az/?eng/menu/65/192>] Accessed December 2020 and January 2021

[2] Republic of Azerbaijan. Ministry of Emergency Situations. Crisis Management Centre. "Areas of Activity (Fəaliyyət

istiqamətləri)." [<https://www.fhn.gov.az/organizations.php?aze-14#services>] Accessed December 2020 and January 2021

[3] Republic of Azerbaijan. Ministry of Emergency Situations. "Trainings (Təlimlər)." (<http://www.fhn.gov.az/?aze/menu/92>)

Accessed December 2020 and January 2021

[4] Republic of Azerbaijan Ministry of Health. Website. [<http://health.gov.az/#>] Accessed December 2020 and January 2021

3.3.1c

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

Yes = 1 , No = 0

Current Year Score: 0

Available evidence does not indicate that Azerbaijan's Emergency Operations Centre (EOC) can conduct, or has conducted within the last year a coordinated emergency response or emergency response exercise activated within 120 minutes of the identification of the public health emergency/scenario.

The country EOC is known as the Crisis Management Centre and is part of the Ministry of Emergency Situations, which focuses on natural and manmade disasters, not infectious disease outbreaks. [1] The Centre's tasks are collecting, summarizing, analysing and making relevant decisions about the information received from various sources during a crisis. Its dedicated website makes no mention of it conducting practice drills. [2] That said, its parent organisation, the ministry itself, does conduct training exercises. Many if not most of its training exercises relate to potential accidents and disasters in the national oil and gas industry. [3]

Finally, Azerbaijan's Ministry of Health does not indicate that it conducts such emergency drills. [4]

[1] Republic of Azerbaijan. Ministry of Emergency Situations. "Bodies: Crisis Management Centre".

[<http://www.fhn.gov.az/?eng/menu/65/192>] Accessed December 2020 and January 2021

[2] Republic of Azerbaijan. Ministry of Emergency Situations. Crisis Management Centre. "Areas of Activity (Fəaliyyət

istiqamətləri)." [<https://www.fhn.gov.az/organizations.php?aze-14#services>] Accessed December 2020 and January 2021

[3] Republic of Azerbaijan. Ministry of Emergency Situations. "Trainings (Təlimlər)." (<http://www.fhn.gov.az/?aze/menu/92>)

Accessed December 2020 and January 2021

[4] Republic of Azerbaijan Ministry of Health. Website. [<http://health.gov.az/#>] Accessed December 2020 and January 2021

3.4 LINKING PUBLIC HEALTH AND SECURITY AUTHORITIES

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

3.4.1a

Does the country meet one of the following criteria?

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

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

Current Year Score: 0

Publicly available evidence does not indicate that the public health and national security authorities in Azerbaijan have carried out an exercise to respond to a potential deliberate biological event (i.e. bioterrorism attack). Neither are there publicly available standard operating procedures, guidelines, MOUs or other agreements between the public health and security authorities to respond to such an event.

It is possible that such exercises and operating procedures exist, but are classified for reasons of national security, Azerbaijan's Ministry of Emergency Situations does conduct training exercises, but with regard to natural and manmade disasters, not infectious disease outbreaks. [1] The Ministry of Health provides no evidence online of having a functional unit engaging in training for a public health emergency. [2] Similarly, while the Ministry of Defense engages in extensive bilateral and multilateral cooperation, such as training exercises with NATO and exchanging information on counterterrorism operations, it does not reveal whether it conducts exercises to prepare for a bioterrorist attack. [3]

The United States Department of Defense implements Nunn-Lugar Cooperative Threat Reduction (CTR) programs in Azerbaijan through a dedicated Defense Threat Reduction Office (DTRO) located in the capital city Baku. The DTRO's activities in Azerbaijan focus on support for local nuclear and biological counter-proliferation efforts; these can include training and exercises. The Ministry of Foreign Affairs, Ministry of Health, State Veterinary Service, Ministry of Defence, Ministry of Emergency Situations and other Azerbaijani state entities cooperated in the DTRO-Baku initiative. More detailed information on the related training activities is not readily available. [4]

[1] Republic of Azerbaijan. Ministry of Emergency Situations. "Trainings (Təlimlər)." (<http://www.fhn.gov.az/?aze/menu/92>) Accessed December 2020 and January 2021

[2] Republic of Azerbaijan Ministry of Health. 2020. Website. [<http://health.gov.az/#>] Accessed December 2020 and January 2021

[3] Republic of Azerbaijan. Ministry of Defense. 2020. Website. [<https://mod.gov.az/en/>] Accessed December 2020

[4] U.S. Embassy in Azerbaijan. "Defense Threat Reduction Office (DTRO)". [<https://az.usembassy.gov/embassy/baku/sections-offices/defense-threat-reduction-office-dtro/>] Accessed 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

Available evidence does not indicate that Azerbaijan has in place a general, stand-alone strategy document detailing a risk communication plan that is specifically intended for use during a public health emergency, let alone one that addresses special-needs populations.

The National Influenza Pandemic Preparedness Plan of 2008, evidently the country's sole stand-alone plan for a public health emergency arising from an outbreak of infectious disease, specifically describes a communications strategy involving public health authorities, the news media and the general public, but it does not break down the public into different groups for this strategy. [1]

It should be noted that Azerbaijan has a Ministry of Emergency Situations, but it focuses on civil defense and related issues, not on public health issues. [2] The Ministry of Health does not indicate that it has a risk communication plan in place to use during a public health emergency. [3]

The World Health Organization (WHO) indicated in 2019 that its Regional Office for Europe had launched an Emergency Risk Communication (ERC) five-step package to help Azerbaijan build its national capacity in ERC according to International Health Regulations (IHR) standards; the WHO also noted that the country had by that year completed steps 1 to 3 of the package including training, capacity mapping and plan writing. [4]

[1] Republic of Azerbaijan. Ministry of Health. August 8 2008. "NATIONAL INFLUENZA PANDEMIC PREPAREDNESS PLAN OF THE REPUBLIC OF AZERBAIJAN". [http://sehiyye.gov.az/files/pdf/PPP_OF_AZERBAIJAN_Eng.pdf] Accessed December 2020 and January 2021

[2] Republic of Azerbaijan. Ministry of Emergency Situations. "Activity fields." [<http://www.fhn.gov.az/?eng/menu/20>] Accessed December 2020 and January 2021

[3] Republic of Azerbaijan. Ministry of Health. 2020. Website. [<http://health.gov.az/>] Accessed December 2020 and January 2021

[4] World Health Organization (WHO). Regional Office for Europe. 2019. "Investing for a safe and healthy Azerbaijan: WHO Health Emergencies Programme at the country level." [https://www.euro.who.int/__data/assets/pdf_file/0003/430680/03_Azerbaijan.pdf] Accessed December 2020 and January 2021

3.5.1 Risk communication planning

3.5.1a

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

Yes = 1, No = 0

Current Year Score: 1

Available evidence indicates that Azerbaijan has in place a general, stand-alone strategy document detailing a risk communication plan that is specifically intended for use during a public health emergency.

One official document that does address risk communication is the National Influenza Pandemic Preparedness Plan of 2008, which is evidently the country's sole stand-alone plan for a public health emergency arising from an outbreak of infectious disease. Chapter 7 of the plan elucidates a communication strategy for dealing with the danger of an influenza pandemic prior to and after its occurrence; it is targeted towards "...ensuring information adequate for every type of audience, and specific about each phase of the influenza pandemic." In such a crisis, the plan mandates efficient communication with all involved parties, such as medical specialists, national and regional health authorities, media organizations, volunteer aid organisations and the general public. [1]

It should be noted that Azerbaijan has a Ministry of Emergency Situations, but this ministry focuses on civil defence and related issues, not on public health issues. [2] The Ministry of Health does not indicate that it has a risk communication plan in place to use during a public health emergency. [3]

The World Health Organization (WHO) indicated in 2019 that its Regional Office for Europe had launched an Emergency Risk Communication (ERC) five-step package to help Azerbaijan build its national capacity in ERC according to International Health Regulations (IHR) standards; the WHO also noted that the country had by that year completed steps 1 to 3 of the package including training, capacity mapping and plan writing. [4]

[1] Republic of Azerbaijan. Ministry of Health. August 8 2008. "NATIONAL INFLUENZA PANDEMIC PREPAREDNESS PLAN OF THE REPUBLIC OF AZERBAIJAN". [http://sehiyye.gov.az/files/pdf/PPP_OF_AZERBAIJAN_Eng.pdf] Accessed December 2020 and January 2021

[2] Republic of Azerbaijan. Ministry of Emergency Situations. "Activity fields." [<http://www.fhn.gov.az/?eng/menu/20>] Accessed December 2020 and January 2021

[3] Republic of Azerbaijan. Ministry of Health. 2020. Website. [<http://health.gov.az/>] Accessed December 2020 and January 2021

[4] World Health Organization (WHO). Regional Office for Europe. 2019. "Investing for a safe and healthy Azerbaijan: WHO Health Emergencies Programme at the country level." [https://www.euro.who.int/__data/assets/pdf_file/0003/430680/03_Azerbaijan.pdf] Accessed December 2020 and January 2021

3.5.1c

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

Yes = 1, No = 0

Current Year Score: 0

Available evidence does not indicate that Azerbaijan has legislation, regulations or a stand-alone strategy document used to guide national public health response that designates a specific position within the government to serve as the primary spokesperson to the public during a public health emergency.

One official document that does address risk communication is the National Influenza Pandemic Preparedness Plan of 2008, which is evidently the country's sole stand-alone plan for a public health emergency arising from an outbreak of infectious disease. Chapter 7 of the plan elucidates a communication strategy for dealing with the danger of an influenza pandemic prior to and after its occurrence; it is targeted towards "...ensuring information adequate for every type of audience, and specific about each phase of the influenza pandemic." In such a crisis, the plan mandates efficient communication with all involved parties, such as medical specialists, national and regional health authorities, media organizations, volunteer aid organisations and the general public. But the communication style foreseen in the plan is "from the top down", and does not stipulate a mechanism for reciprocal communication by the recipients of information. [1]

It should be noted that Azerbaijan has a Ministry of Emergency Situations, but this ministry focuses on civil defence and related issues, not on public health issues. [2]

Finally, the Ministry of Health does not indicate that it has a risk communication plan in place to use during a public health emergency. [3]

[1] Republic of Azerbaijan. Ministry of Health. August 8 2008. "NATIONAL INFLUENZA PANDEMIC PREPAREDNESS PLAN OF THE REPUBLIC OF AZERBAIJAN". [http://sehiyye.gov.az/files/pdf/PPP_OF_AZERBAIJAN_Eng.pdf] Accessed December 2020 and January 2021

[2] Republic of Azerbaijan. Ministry of Emergency Situations. "Activity fields." [<http://www.fhn.gov.az/?eng/menu/20>] Accessed December 2020 and January 2021

[3] Republic of Azerbaijan. Ministry of Health. 2020. Website. [<http://health.gov.az/>] Accessed December 2020 and January 2021

3.5.2 Public communication

3.5.2a

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

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

Current Year Score: 2

The public health system in Azerbaijan utilizes media platforms (social media, website updates, etc.) to inform the public about public health emergencies. Otherwise, the system uses such tools in a limited fashion, mostly to relate news of its own activities. [1]

The state entity most responsible for managing a public health emergency, the Ministry of Health, has a press office as well as more modern web-based media platforms; in addition to its own website which provides news [1], it has recently opened

dedicated pages on Facebook, Twitter, YouTube and Instagram. For example, the ministry's Facebook page provides daily updates on the current COVID-19 coronavirus pandemic, in the form of case statistics, latest recommendations for citizens, and news notices. Prior to the pandemic, the ministry's website and social-media pages contained mostly news about its own activities, such as opening new healthcare facilities, sponsoring blood-donation drives, and dispatching of emergency care specialists to earthquake victims. [1, 2]

The Cabinet of Ministers operates a dedicated website, KoronaVirusInfo, which includes a wealth of information on the disease, including daily news and situational updates, informational videos, statistical data and telephone "hotline" numbers. On the Statistics webpage is a data "dashboard", updated daily and displaying six numerical case indicators: infected, recovered, newly infected, actively under treatment, deceased, and tested. Cumulative statistics are also available, including surveillance data in schematic form. [3]

Among other key government entities, the Ministry of Health's Centre for Public Health and Reforms (ISIM--the national public health institute), has its own pages on Facebook, Twitter, YouTube and Instagram, as well as a dedicated webpage on the coronavirus. In all these media, the ISIM focuses on the policy aspects of public health. For example, the ISIM's website does not display surveillance data but directs the page visitor to the aforementioned dedicated COVID-19 website. [4]

[1] Republic of Azerbaijan. Ministry of Health. 2020. Press service (Mətbuat xidməti). "News (Xəbərlər)." [http://www.sehiyye.gov.az/xeberler/] Accessed December 2020 and January 2021

[2] Facebook. 2021. The Ministry of Health of the Republic of Azerbaijan (Azərbaycan Respublikası Səhiyyə Nazirliyi). [https://www.facebook.com/sehiyyegovaz/] Accessed December 2020 and January 2021

[3] Republic of Azerbaijan. Cabinet of Ministers.KoronaVirusInfo. 2021. Website. [https://koronavirusinfo.az/az] Accessed December 2020 and January 2021

[4] Republic of Azerbaijan. Ministry of Health. Center for Public Health and Reforms (ISIM). 2020. Website. [https://isim.az/en/main] Accessed December 2020 and January 2021

3.5.2b

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

No = 1, Yes = 0

Current Year Score: 1

Available evidence is insufficient that senior leaders (president or ministers) in Azerbaijan have shared misinformation or disinformation on infectious diseases in the past two years. A scan of the websites and social-media accounts of the key health-oriented government entities (the Ministry of Health and its Centre for Public Health and Reforms (ISIM--the national public health institute), as well as the international and local (Azeri-language) press reveals no controversial or blatantly inaccurate statements made by Azerbaijani key leaders on health issues over this time period. [1, 2, 3]

During the current COVID-19 coronavirus pandemic, the Cabinet of Ministers operates a dedicated website, KoronaVirusInfo, which includes a wealth of information on the disease, including daily news, situational updates and videos from the office of the Presidency, often featuring the president, Ilham Aliyev. [4] In March 2020, the president signed three parliamentary laws prohibiting owners of "internet information resources, domain names associated with these", and users of "information-telecommunication networks" from placing certain types of content on an internet information resource or information-telecommunication network; such content ranges from unlawful disclosure of state secrets, incitements to terrorism, pornography, and infringements of intellectual property. The laws also pertain to the spreading of mis- or disinformation regarding the current COVID-19 pandemic. Civil and criminal penalties, including monetary fines and imprisonment. apply for

violations. [5]

Some critics have argued, however, that the government has used the cover of these new laws to arrest individuals such as independent journalists, including some who had posted on social media that the real number of cases of COVID-19 was higher than official figures suggest. [6]

[1] Republic of Azerbaijan. Ministry of Health. 2020. Press service (Mətbuat xidməti). [<http://www.sehiyye.gov.az/main/>] Accessed December 2020 and January 2021

[2] Facebook. 2021. The Ministry of Health of the Republic of Azerbaijan (Azərbaycan Respublikası Səhiyyə Nazirliyi). [<https://www.facebook.com/sehiyyegovaz/>] Accessed December 2020 and January 2021

[3] Republic of Azerbaijan. Ministry of Health. Center for Public Health and Reforms (ISIM). 2020. Website. [<https://isim.az/en/main>] Accessed December 2020 and January 2021

[4] Republic of Azerbaijan. Cabinet of Ministers.KoronaVirusInfo. 2021. Website. [<https://koronavirusinfo.az/az>] Accessed December 2020 and January 2021

[5] United States Library of Congress. December 30 2020. "Freedom of Expression during COVID-19: Azerbaijan." [<https://www.loc.gov/law/help/covid-19-freedom-of-expression/azerbaijan.php?loclr=bloglaw>] Accessed December 2020 and January 2021

[6] Atlantic Council. May 19 2020. "Activists fight COVID-19 disinformation in the Caucasus." [<https://www.atlanticcouncil.org/blogs/new-atlanticist/activists-fight-covid-19-disinformation-in-the-caucasus/>] Accessed December 2020 and January 2021

3.6 ACCESS TO COMMUNICATIONS INFRASTRUCTURE

3.6.1 Internet users

3.6.1a

Percentage of households with Internet

Input number

Current Year Score: 79.8

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: 106.99

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: 6.0

2019

Gallup; Economist Impact calculation

3.6.4 Female access to the Internet

3.6.4a

Percentage point gap between males and females whose home has access to the Internet

Input number

Current Year Score: 10.0

2019

Gallup; Economist Impact calculation

3.7 TRADE AND TRAVEL RESTRICTIONS

3.7.1 Trade restrictions

3.7.1a

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

Yes = 0, No = 1

Current Year Score: 0

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

In response to the outbreak of the COVID-19 coronavirus pandemic, and in order to conserve and safeguard supplies for its own domestic use, in February 2020 Azerbaijan's Cabinet of Ministers issued prohibitions on the export of certain pharmaceutical goods and medical supply products including respirators and non-contact thermometers, disposable protective clothing such as gowns, sterile gloves, masks and goggles, and disinfectants. [1, 2] The bans were extended several times until finally being lifted on November 1 2020. [2]

[1] MENAFN News Agency. July 1 2020. "Azerbaijan extends ban on export of medical supplies."

[https://menafn.com/1100416510/Azerbaijan-extends-ban-on-export-of-medical-supplies] Accessed January 2021

[2] International Trade Centre (ITC). January 15 2021. Market Access Map. "COVID-19 Temporary Trade Measures:

Temporary trade measures enacted by government authorities in relation to COVID-19 pandemic rapidly spreading across

the world." [<https://www.macmap.org/covid19>] Accessed January 2021

3.7.1b

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

Yes = 0, No = 1

Current Year Score: 0

In the past year, there is evidence that Azerbaijan has issued a restriction on the import of non-medical goods from another country without international/bilateral support, stating that it was due to the risk posed by an infectious disease outbreak.

Citing reports from the World Organisation for Animal Health (OIE) on outbreaks of infectious disease in food animal populations in various areas of the world, in the first month of January 2021 alone the Food Safety Agency of the Republic of Azerbaijan (AQTA) put in place at least three separate bans on food-related imports. One applies to the import of all types of small livestock into Azerbaijan—including their genetic material—from the Blagoevgrad region of Bulgaria, as well as live poultry and poultry products from all regions of the Republic of Korea and from the Kherson region of Ukraine. [1] Another ban was imposed on the import of all species of live birds and poultry products from the province of Thuringia in the Federal Republic of Germany and the province of Ulster in Northern Ireland.[2] Also in January 2021, the AQTA banned the import of live poultry and poultry products from the South Khorasan province of the Islamic Republic of Iran, acting on information received from the OIE on the presence of highly pathogenic avian influenza in that region. [3]

[1] Republic of Azerbaijan. Food Safety Agency of the Republic of Azerbaijan (AQTA). January 6 2021. Information on temporary restrictions applied by AQTA to protect against infectious animal diseases (Yoluxucu heyvan xəstəliklərindən qorunmaq məqsədilə AQTA-nın tətbiq etdiyi müvəqqəti məhdudiyətlə bağlı məlumat)."

[http://afsa.gov.az/az/media/news_details/1111] Accessed January 2021

[2] Republic of Azerbaijan. Food Safety Agency of the Republic of Azerbaijan (AQTA). January 12 2021. "Imports of live birds and poultry products from Germany and some regions of Northern Ireland are temporarily restricted (Almaniya və Şimali İrlandiyanın bəzi regionlarından diri quş və quş məhsullarının idxalına müvəqqəti məhdudiyət qoyulub)."

[http://afsa.gov.az/az/media/news_details/1137] Accessed January 2021

[3] Republic of Azerbaijan. Food Safety Agency of the Republic of Azerbaijan (AQTA). January 13 2021. "Temporary restriction on import of all types of live birds and poultry products from South Khorasan province of Islamic Republic of Iran (İran İslam Respublikasının Cənubi Xorasan əyalətindən bütün növ diri quş və quşçuluq məhsullarının idxalına müvəqqəti məhdudiyət tətbiq olunub)."

[http://afsa.gov.az/az/media/news_details/1148] Accessed January 2021 Other sources: MENAFN News Agency. January 7 2021. "Azerbaijani Food Safety Agency suspends import of some products from several countries." [<https://menafn.com/1101402493/Azerbaijani-Food-Safety-Agency-suspends-import-of-some-products-from-several-countries&source=246>] Accessed January 2021

3.7.2 Travel restrictions

3.7.2a

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

Yes = 0, No = 1

Current Year Score: 0

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

In response to the outbreak of the global COVID-19 coronavirus in early 2020 the government put in place a series of restrictions and in some circumstances outright bans on international travel. As of January 2021, general restrictions on international travel to and from the country remain in place. While all of Azerbaijan's land border crossings with its neighbors remain closed, [1] visas are obtainable for individual travelers on special, private and charter flights. A negative COVID-19 test (PCR) is required for entry, and health screening procedures are in place at airports and other ports of entry; arriving visitors must self-quarantine for 14 days. [2]

Outright bans on air travel between Azerbaijan and its immediate neighbors Iran and Georgia have been imposed and remain in effect until April 1st 2021. Mutual visits of Azerbaijani and Russian citizens have been temporarily suspended. [3]

[1] Travelbans.org. "AZERBAIJAN TRAVEL RESTRICTIONS." [<https://travelbans.org/asia/azerbaijan/>] Accessed January 2021

[2] Azerbaijan Travel. 2021. "COVID-19 Restrictions & Advisory." [<https://azerbaijan.travel/covid-19-en>] Accessed January 2021

[3] U.S. Embassy in Azerbaijan. December 12 2020. "COVID-19 Information for Azerbaijan." [<https://az.usembassy.gov/covid-19-information-for-azerbaijan/>] Accessed January 2021

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

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

4.1.1 Available human resources for the broader healthcare system

4.1.1a

Doctors per 100,000 people

Input number

Current Year Score: 344.6

2014

WHO; national sources

4.1.1b

Nurses and midwives per 100,000 people

Input number

Current Year Score: 643.38

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

Although Azerbaijan has a public workforce strategy in place, updated in late 2018, to identify fields where there is an insufficient workforce and strategies to address these shortcomings, it has not been implemented yet and does not specifically address the field of public health.

Azerbaijan has long had top-down workforce strategies, with the latest relevant labour policy initiative, the Employment Strategy of the Republic of Azerbaijan for 2019-2030, being approved in October 2018. Whereas previous iterations focused on strengthening the social protection of workers in the country and formalising employer-employee relationships, the latest strategy focuses on enhancing workforce capacities. A significant aspect of this strategy is to raise the quality and productivity of labour resources in the country, one method being the development of a labour market monitoring and forecasting system. However, the text of the new regulation does not detail the individual economic sectors where the policy will be applied. [1]

The Ministry of Health does not indicate that it has an overarching, stand-alone strategy for the country's public health sector workforce. [2]

[1] Republic of Azerbaijan. Ministry of Labor and Social Protection of the Population. October 30 2018. "Employment Strategy of the Republic of Azerbaijan for 2019-2030 (2019-2030-cu illər üçün Azərbaycan Respublikasının Məşğulluq Strategiyası)." <http://e-qanun.az/framework/40416> Accessed December 2020 and January 2021

[2] Republic of Azerbaijan. Ministry of Health. 2020. Website. [<http://www.sehiyye.gov.az/>] Accessed December 2020

4.1.2 Facilities capacity

4.1.2a

Hospital beds per 100,000 people

Input number

Current Year Score: 482

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

Available evidence does not indicate that Azerbaijan has the capacity to isolate patients with highly communicable diseases in a biocontainment patient care unit and/or patient isolation facility located within the country.

The Ministry of Health's website makes no mention of having such a capacity, and a 2014 Ministry guide on Ebola virus detection and control in medical institutions makes only brief reference to patient isolation rooms without elaborating on the issue. [1, 2]

Finally, neither of the two key hospitals in the capital city Baku--the Central Clinical Hospital and the newly opened Bona Dea International Hospital--make mention of having patient isolation chambers. [3, 4]

[1] Republic of Azerbaijan. Ministry of Health. 2020. Website. [<http://health.gov.az/>] Accessed December 2020

[2] Ministry of Health of the Republic of Azerbaijan. 2014. "Ebola virus detection in medical institutions, treatment of suspected or confirmed patients, prevention of infection and control (Tibb müəssisələrində Ebola virusunun aşkarlanması, Şübhəli bilinən və ya təsdiq edilmiş xəstələrin müalicəsi, infeksiyanın profilaktikası və nəzarətin təşkilinə dair). [sehiyye.gov.az/files/pdf/ebola/ebola-004.pdf] Accessed December 2020

[3] Central Clinical Hospital. Website. [<http://www.merkeziklinika.az/index>] Accessed December 2020

[4] Bona Dea International Hospital. Website. [<https://www.bonadea.org/>] Accessed 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: 1

Available evidence indicates that Azerbaijan has demonstrated capacity to expand isolation capacity in response to an infectious disease outbreak in the past two years. However, evidence does not suggest that the country has developed, updated or tested a plan to expand isolation capacity in response to such an outbreak in the past two years.

According to the COVID-19 Health System Response Monitor, a services of the World Health Organization (WHO) Regional Office for Europe, European Commission and European Observatory on Health Systems and Policies, as of October 29 2020 (latest data available) Azerbaijan had designated a total of 35 hospitals in Baku and in the regions for treatment of COVID-19 cases. The total number of beds in these facilities was over 8000 (of which 437 were in ICUs with oxygen, equipped with a total of 267 ventilators). Two more hospitals have been transformed into quarantine hospitals. At the time, 5 of the 10 modular COVID-19 hospitals were in use. [1]

Otherwise, Azerbaijan has only one stand-alone policy plan in place to respond to an epidemic or pandemic health

emergency, and it applies only to one disease--influenza. This plan, the National Influenza Pandemic Preparedness Plan of 2008, mandates the implementation of several non-pharmaceutical interventions (NPIs) during an outbreak of pandemic influenza; in Chapter 6.1 it discusses home isolation for individuals with light and medium acuteness of influenza forms" and hospital isolation for acute cases. [2] While the 2008 plan does not indicate that it is applicable to outbreaks of other diseases or biological threats, according to the WHO it was "revisited" as a policy framework in the wake of the COVID-19 outbreak. [3]

In any case, there is evidence that Azerbaijan is currently developing a comprehensive plan to improve health emergency response capacity. Through its Health Emergencies Programme, the World Health Organization (WHO)'s Regional Office for Europe is active in Azerbaijan, helping the authorities there to build national capacity in planning for and responding to such emergencies according to International Health Regulations (IHR) standards. The WHO indicates that actions such as these form the foundation of a future National Action Plan for Health Emergency Preparedness. [3] However, neither the Ministry of Health, nor its Centre for Public Health and Reforms (ISIM--the national public health institute) nor the Ministry of Emergency Situations provide evidence that they currently have in place a comprehensive plan of this nature. [4, 5, 6]

[1] World Health Organization (WHO) Regional Office for Europe, European Commission and European Observatory on Health Systems and Policies. COVID-19 Health System Response Monitor. October 29 2020. Azerbaijan. Policy responses for Azerbaijan. "2. Ensuring sufficient physical infrastructure and workforce capacity."
[<https://www.covid19healthsystem.org/countries/azerbaijan/livinghit.aspx?Section=1.1%20Health%20communication&Type=Section>] Accessed April 2021

[2] Republic of Azerbaijan. Ministry of Health. August 8 2008. "NATIONAL INFLUENZA PANDEMIC PREPAREDNESS PLAN OF THE REPUBLIC OF AZERBAIJAN". [http://sehiyye.gov.az/files/pdf/PPP_OF_AZERBAIJAN_Eng.pdf] Accessed December 2020 and January and April 2021

[3] World Health Organization (WHO). Regional Office for Europe. 2019. "Investing for a safe and healthy Azerbaijan: WHO Health Emergencies Programme at the country level."
[https://www.euro.who.int/__data/assets/pdf_file/0003/430680/03_Azerbaijan.pdf] Accessed December 2020 and January 2021

[4] Republic of Azerbaijan. Ministry of Emergency Situations. "Activity fields." [<http://www.fhn.gov.az/?eng/menu/20>] Accessed December 2020 and January 2021

[5] Republic of Azerbaijan. Ministry of Health. 2020. Website. [<http://health.gov.az/>] Accessed December 2020 and January 2021

[6] Republic of Azerbaijan. Ministry of Health. Center for Public Health and Reforms (ISIM). 2020. Website.
[<https://isim.az/en/main>] Accessed December 2020 and January 2021

[6] World Health Organization (WHO) Regional Office for Europe, European Commission and European Observatory on Health Systems and Policies. COVID-19 Health System Response Monitor. 2020 and 2021. "Azerbaijan."
[<https://www.covid19healthsystem.org/countries/azerbaijan/livinghit.aspx?Section=1.1%20Health%20communication&Type=Section>] Accessed December 2020 and January and April 2021

[7] World Health Organization (WHO) Regional Office for Europe. August 11 2020. "Azerbaijan response to COVID-19: better testing and contact tracing are key." [<https://www.euro.who.int/en/health-topics/health-emergencies/coronavirus-covid-19/news/news/2020/8/azerbaijan-response-to-covid-19-better-testing-and-contact-tracing-are-key>] Accessed December 2020 and January 2021

4.2 SUPPLY CHAIN FOR HEALTH SYSTEM AND HEALTHCARE WORKERS

4.2.1 Routine health care and laboratory system supply

4.2.1a

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

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

Current Year Score: 0

Available evidence indicates that Azerbaijan does not yet have a single, national procurement protocol which can be utilised by entities such as 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.

While there is a central government procurement agency, called the State Service for Antimonopoly and Consumer Market Control and overseen by the Ministry of Economy, it is a policymaking and management body chiefly concerned with tenders. [1] Otherwise, the national procurement system is non-centralised, involving over 800 contracting authorities. [2] In the Ministry of Health, the responsible entity is the Innovation and Supply Center, which acts on orders from relevant specialists at the ministry, based either on their forecasts of needs, on the set requirements of state health programmes, or on the requests of health facilities. [3, 4]

Evidence of the existence of an analogous entity in the Ministry of Agriculture is sparse. Instead, procurement appears to be effected there by the particular unit of the ministry requiring supplies. One of these units is the Agrarian Supply and Procurement Company, which is mainly involved in the centralized ordering of food products by the state. [5]

Although the 2001 Law on Public Procurement, while amended as recently as 2018, does not specify a central procurement authority or mechanism, it does appear to envision a central electronic tender system. [6] Other evidence does indicate that a central electronic procurement portal is in the works. In late January 2019, the local press reported that a single internet-based procurement system will be put in place, but timing for the rollout of the new system was not specified. More recent evidence on the progress of this venture, if any, is lacking in the public domain. [7]

[1] Republic of Azerbaijan. Ministry of Economy. State Service for Antimonopoly and Consumer Market Control. 2021. Website. [<http://consumer.gov.az/en>] Accessed January 2021

[2] Malahat Aliyeva, Sabina Abdullayeva. 28-31 May 2013. "The State Procurement Agency of the Republic of Azerbaijan: Efficient Implementation of Procurement--Centralized Purchasing". PowerPoint presentation. [<https://slideplayer.com/slide/7940435/>] Accessed January 2021

[3] Bonilla-Chacin, M.E., Afandiyeva, G., and Suaya, A. 2018. "Challenges on the Path to Universal Health Coverage: The Experience of Azerbaijan". Universal Health Care Coverage Series 28, World Bank Group. [<http://documents.worldbank.org/curated/en/85475151619600443rbaijan-case-study-pages-fixed-PUBLIC.pdf>] Accessed January 2021

[4] Republic of Azerbaijan. Ministry of Health. "Innovation and Procurement Center Information (İnnovasiya və Təchizat Mərkəzinin məlumatı)." [http://health.gov.az/innovasiya_merkez.html] Accessed January 2021

[5] Republic of Azerbaijan. Ministry of Agriculture. 2021. "Subordinate Institutions (Təbeli Qurumlar)." [<https://agro.gov.az/az/nazirlik/tabeli-qurumlar>] Accessed January 2021

[6] Republic of Azerbaijan. Office of the Presidency. December 27 2001. № 245-IIQ "LAW OF THE REPUBLIC OF AZERBAIJAN On public procurement (Dövlət satınalmaları haqqında AZƏRBAYCAN RESPUBLİKASININ QANUNU)." [<http://www.e-qanun.az/framework/1029>] Accessed January 2021

[7] REPORT Information Agency. January 25 2019. "Reforms in public procurement were provided (Dövlət satınalmaları sahəsində islahatlar təqdim olunub)." [<https://report.az/maliyye/dovlet-satinalmalarinin-vahid-internet-portali-yaradilacaq/>] Accessed January 2021

4.2.2 Stockpiling for emergencies

4.2.2a

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

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

Current Year Score: 0

Evidence is insufficient that Azerbaijan maintains a stockpile of medical supplies (e.g. MCMs, medicines, vaccines, medical equipment, PPE) for national use during a public health emergency.

Although the country likely has agreements in place with manufacturers or distributors to procure medical supplies and MCMs in such a situation, publicly available documentation on such agreements is sparse. In fighting infectious diseases, the Ministry of Health states that it has undertaken "...effective prophylactic and anti-epidemic measures implemented in close cooperation with international organisations..." [1] The main intervention mechanism is a countrywide immunisation policy, prioritizing young children and currently executed through the national Program on Immunoprophylaxis of Infectious Diseases 2016-2020; point 3.2.4. of the program mandates "continuous funding of immunisation measures, quality vaccine supplies and equipment supply." [2] A cold chain system is used to safeguard and monitor the condition of vaccines, which along with related materials are kept at centralised locations. [1]

The Ministry of Health's National Influenza Pandemic Preparedness Plan of 2008 specifically mentions public health emergencies, and mandates funding for a "permanent national stock of antivirus medicinal products" and developing a strategy to ensure their future supply through setting down a protocol for negotiating on supplies with individual manufacturers or producing countries. [3] Otherwise, the ministry does not indicate that it maintains such a reserve. [4]

While the website of the Ministry of Emergency Situations states that it does manage the national reserves of emergency stocks, it does not state what these stocks are. Moreover, the Ministry does not count the management of infectious disease outbreaks among its core policy areas. [5] Finally, neither the Ministry of Defense nor the State Security Service indicate that they are involved in maintaining stockpiles of medical supplies and/or MCMs. [6, 7]

[1] Republic of Azerbaijan. Ministry of Health. January 18 2017. "Significant work is being done to prevent infectious diseases in Azerbaijan (Azərbaycanda yoluxucu xəstəliklərin profilaktikası sahəsində əhəmiyyətli işlər görülür)." [<http://sehiyye.gov.az/main/1498-azrbaycanda-yoluxucu-xstliklrin-profilaktikas-sahsind-hmiyytli-ilor-grlr.html>] Accessed December 2020 and January 2021

[2] Republic of Azerbaijan. Cabinet of Ministers. December 1 2015. "RESOLUTION OF THE CABINET OF MINISTERS OF THE REPUBLIC OF AZERBAIJAN On Approval of the Program of Immunoprophylaxis of Infectious Diseases for Children for 2016-2020 ("2016-2020-ci illər üçün uşaqlar arasında yoluxucu xəstəliklərin immunoprofilaktikasına dair Tədbirlər Programı")nın təsdiq edilməsi haqqında AZƏRBAYCAN RESPUBLİKASI NAZİRLƏR KABİNETİNİN QƏRARI." [<http://www.e-qanun.az/framework/27805>] Accessed December 2020 and January 2021

[3] Republic of Azerbaijan. Ministry of Health. August 8 2008. "NATIONAL INFLUENZA PANDEMIC PREPAREDNESS PLAN OF THE REPUBLIC OF AZERBAIJAN." [http://sehiyye.gov.az/files/pdf/PPP_OF_AZERBAIJAN_Eng.pdf] Accessed December 2020 and January 2021

[4] Republic of Azerbaijan. Ministry of Health. 2020. Website. [<http://sehiyye.gov.az>] Accessed December 2020 and January 2021

[5] Republic of Azerbaijan. Ministry of Emergency Situations. 2020. "Activity fields." [<https://www.fhn.gov.az/index.php?eng/menu/20>] Accessed December 2020 and January 2021

[6] Republic of Azerbaijan. State Security Service. 2020. Website. [<https://www.dtx.gov.az/en/>] Accessed December 2020 and January 2021

[7] Republic of Azerbaijan. Ministry of Defense. 2020. Website. [<https://mod.gov.az/en/>] Accessed December 2020 and January 2021

4.2.2b

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

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

Current Year Score: 0

Evidence is insufficient that Azerbaijan maintains a stockpile of laboratory supplies (e.g. reagents, media) for national use during a public health emergency.

Although the country likely has agreements in place with manufacturers or distributors to procure laboratory supplies in such a situation, publicly available documentation on such agreements is sparse. In fighting infectious diseases, the Ministry of Health states that it has undertaken "...effective prophylactic and anti-epidemic measures implemented in close cooperation with international organisations..." [1] The main intervention mechanism is a countrywide immunisation policy, prioritizing young children and currently executed through the national Program on Immunoprophylaxis of Infectious Diseases 2016-2020; point 3.2.4. of the program mandates "continuous funding of immunisation measures, quality vaccine supplies and equipment supply." [2] A cold chain system is used to safeguard and monitor the condition of vaccines, which along with related materials are kept at centralised locations. [1]

The Ministry of Health's National Influenza Pandemic Preparedness Plan of 2008 specifically mentions public health emergencies, and mandates funding for a "permanent national stock of antivirus medicinal products" and developing a strategy to ensure their future supply through setting down a protocol for negotiating on supplies with individual manufacturers or producing countries. But the plan does not mention the need to stock laboratory supplies. [3] In any case, the ministry does not indicate that it maintains a reserve of medical or laboratory supplies. [4]

While the website of the Ministry of Emergency Situations states that it does manage the national reserves of emergency stocks, it does not state what these stocks are. Moreover, the Ministry does not count the management of infectious disease outbreaks among its core policy areas. [5] Finally, neither the Ministry of Defense nor the State Security Service indicate that they are involved in maintaining stockpiles of laboratory supplies. [6, 7]

[1] Republic of Azerbaijan. Ministry of Health. January 18 2017. "Significant work is being done to prevent infectious diseases in Azerbaijan (Azərbaycanda yoluxucu xəstəliklərin profilaktikası sahəsində əhəmiyyətli işlər görülür)." [<http://sehiyye.gov.az/main/1498-azrbaycanda-yoluxucu-xstliklrin-profilaktikas-sahsind-hmiyytli-ilt-grlr.html>] Accessed December 2020 and January 2021

[2] Republic of Azerbaijan. Cabinet of Ministers. December 1 2015. "RESOLUTION OF THE CABINET OF MINISTERS OF THE

REPUBLIC OF AZERBAIJAN On Approval of the Program of Immunoprophylaxis of Infectious Diseases for Children for 2016-2020 ("2016-2020-ci illər üçün uşaqlar arasında yoluxucu xəstəliklərin immunoprofilaktikasına dair Tədbirlər Proqramı"nın təsdiq edilməsi haqqında AZƏRBAYCAN RESPUBLİKASI NAZİRLƏR KABİNETİNİN QƏRARI." [<http://www.e-qanun.az/framework/27805>] Accessed December 2020 and January 2021

[3] Republic of Azerbaijan. Ministry of Health. August 8 2008. "NATIONAL INFLUENZA PANDEMIC PREPAREDNESS PLAN OF THE REPUBLIC OF AZERBAIJAN." [http://sehiyye.gov.az/files/pdf/PPP_OF_AZERBAIJAN_Eng.pdf] Accessed December 2020 and January 2021

[4] Republic of Azerbaijan. Ministry of Health. 2020. Website. [<http://sehiyye.gov.az>] Accessed December 2020 and January 2021

[5] Republic of Azerbaijan. Ministry of Emergency Situations. 2020. "Activity fields." [<https://www.fhn.gov.az/index.php?eng/menu/20>] Accessed December 2020 and January 2021

[6] Republic of Azerbaijan. State Security Service. 2020. Website. [<https://www.dtx.gov.az/en/>] Accessed December 2020 and January 2021

[7] Republic of Azerbaijan. Ministry of Defense. 2020. Website. [<https://mod.gov.az/en/>] Accessed December 2020 and January 2021

4.2.2c

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

Yes = 1, No = 0

Current Year Score: 0

Available evidence does not indicate that Azerbaijan conducts or requires an annual review of the national stockpile to ensure the supply is sufficient for a public health emergency. Evidence is insufficient that Azerbaijan maintains a stockpile of medical supplies (e.g. equipment, PPE) and/or medical countermeasures (MCM) (i.e. vaccines, therapeutics and diagnostics) for national use during a public health emergency.

Although the country likely has agreements in place with manufacturers or distributors to procure medical supplies and MCMs in such a situation, publicly available documentation on such agreements is sparse. In fighting infectious diseases, the Ministry of Health states that it has undertaken "...effective prophylactic and anti-epidemic measures implemented in close cooperation with international organisations..." [1]

The Ministry of Health's National Influenza Pandemic Preparedness Plan of 2008 specifically mentions public health emergencies, and mandates funding for a "permanent national stock of antivirus medicinal products" and developing a strategy to ensure their future supply through setting down a protocol for negotiating on supplies with individual manufacturers or producing countries. [2] Otherwise, the ministry does not indicate that it maintains such a reserve. [3]

While the website of the Ministry of Emergency Situations states that it does manage the national reserves of emergency stocks, it does not state what these stocks are. Moreover, the Ministry does not count the management of infectious disease outbreaks among its core policy areas. [4] Finally, neither the Ministry of Defense nor the State Security Service indicate that they are involved in maintaining stockpiles of medical supplies and/or MCMs. [5, 6]

[1] Republic of Azerbaijan. Ministry of Health. January 18 2017. "Significant work is being done to prevent infectious diseases in Azerbaijan (Azərbaycanda yoluxucu xəstəliklərin profilaktikası sahəsində əhəmiyyətli işlər görülür)." [<http://sehiyye.gov.az/main/1498-azrbaycanda-yoluxucu-xstliklrin-profilaktikas-sahsind-hmiyytli-iltr-grlr.html>] Accessed December 2020 and January 2021

[2] Republic of Azerbaijan. Ministry of Health. August 8 2008. "NATIONAL INFLUENZA PANDEMIC PREPAREDNESS PLAN OF THE REPUBLIC OF AZERBAIJAN." [http://sehiyye.gov.az/files/pdf/PPP_OF_AZERBAIJAN_Eng.pdf] Accessed December 2020 and January 2021

[3] Republic of Azerbaijan. Ministry of Health. 2020. Website. [<http://sehiyye.gov.az>] Accessed December 2020 and January 2021

[4] Republic of Azerbaijan. Ministry of Emergency Situations. 2020. "Activity fields." [<https://www.fhn.gov.az/index.php?eng/menu/20>] Accessed December 2020 and January 2021

[5] Republic of Azerbaijan. State Security Service. 2020. Website. [<https://www.dtx.gov.az/en/>] Accessed December 2020 and January 2021

[6] Republic of Azerbaijan. Ministry of Defense. 2020. Website. [<https://mod.gov.az/en/>] Accessed December 2020 and January 2021

4.2.3 Manufacturing and procurement for emergencies

4.2.3a

Does the country meet one of the following criteria?

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

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

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

Current Year Score: 0

Available evidence does not indicate that in Azerbaijan there is an institutional plan or agreement to leverage domestic manufacturing capacity to produce/procure medical supplies (e.g. MCMs, medicines, vaccines, equipment, PPE) for national use during a public health emergency.

Although the country likely has agreements in place with manufacturers or distributors to procure medical supplies and MCMs in such a situation, publicly available documentation on such agreements is sparse. In fighting infectious diseases, the Ministry of Health states that it has undertaken "...effective prophylactic and anti-epidemic measures implemented in close cooperation with international organisations..." [1] Its National Influenza Pandemic Preparedness Plan of 2008 specifically mentions public health emergencies, and mandates funding for a "permanent national stock of antivirus medicinal products" and developing a strategy to ensure their future supply through setting down a protocol for negotiating on supplies with individual manufacturers or producing countries. In any case, the plan's procurement strategy focuses on antivirals not equipment. [2]

Otherwise, a review of the country's published laws, decrees, orders, decisions regulations, protocols and agreements that pertain to the health ministry does not reveal any aim to leverage domestic manufacturing capacity or to procure medical supplies from third parties. [3]

Finally, neither the Ministry of Defense, the State Security Service nor the Ministry of Emergency Situations indicate that they have agreements with outside parties to produce or procure medical supplies during a public health emergency. [4, 5, 6]

[1] Republic of Azerbaijan. Ministry of Health. January 18 2017. "Significant work is being done to prevent infectious diseases in Azerbaijan (Azərbaycanda yoluxucu xəstəliklərin profilaktikası sahəsində əhəmiyyətli işlər görülür)." [<http://sehiyye.gov.az/main/1498-azrbaycanda-yoluxucu-xstliklirin-profilaktikas-sahsind-hmiyytli-ilor-grlr.html>] Accessed

[<http://sehiyye.gov.az/main/1498-azrbaycanda-yoluxucu-xstliklirin-profilaktikas-sahsind-hmiyytli-ilor-grlr.html>] Accessed

December 2020 and January 2021

[2] Republic of Azerbaijan. Ministry of Health. August 8 2008. "NATIONAL INFLUENZA PANDEMIC PREPAREDNESS PLAN OF THE REPUBLIC OF AZERBAIJAN." [http://sehiyye.gov.az/files/pdf/PPP_OF_AZERBAIJAN_Eng.pdf] Accessed December 2020 and January 2021

[3] Republic of Azerbaijan. Ministry of Health. 2020. Website. [<http://sehiyye.gov.az>] Accessed December 2020 and January 2021

[4] Republic of Azerbaijan. Ministry of Emergency Situations. 2020. "Activity fields." [<https://www.fhn.gov.az/index.php?eng/menu/20>] Accessed December 2020 and January 2021

[5] Republic of Azerbaijan. State Security Service. 2020. Website. [<https://www.dtx.gov.az/en/>] Accessed December 2020 and January 2021

[6] Republic of Azerbaijan. Ministry of Defense. 2020. Website. [<https://mod.gov.az/en/>] Accessed December 2020 and January 2021

4.2.3b

Does the country meet one of the following criteria?

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

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

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

Current Year Score: 0

Available evidence does not indicate that in Azerbaijan there is an institutional plan or agreement to leverage domestic manufacturing capacity to produce laboratory supplies (e.g. reagents, media) for national use during a public health emergency. Neither is there evidence of an institutional plan or mechanism to procure laboratory supplies for national use during a public health emergency.

Although the country likely has agreements in place with manufacturers or distributors to procure laboratory supplies in such a situation, publicly available documentation on such agreements is sparse. In fighting infectious diseases, the Ministry of Health states that it has undertaken "...effective prophylactic and anti-epidemic measures implemented in close cooperation with international organisations..." [1] Its National Influenza Pandemic Preparedness Plan of 2008 specifically mentions public health emergencies, and mandates funding for a "permanent national stock of antivirus medicinal products" and developing a strategy to ensure their future supply through setting down a protocol for negotiating on supplies with individual manufacturers or producing countries. [3] In any case, the plan's procurement strategy focuses on antivirals not lab supplies. [2]

Otherwise, a review of the country's published laws, decrees, orders, decisions regulations, protocols and agreements that pertain to the health ministry does not reveal any aim to leverage domestic manufacturing capacity or to procure lab supplies from third parties. [3]

Finally, neither the Ministry of Defense, the State Security Service nor the Ministry of Emergency Situations indicate that they have agreements with outside parties to produce or procure laboratory supplies during a public health emergency. [4, 5, 6]

[1] Republic of Azerbaijan. Ministry of Health. January 18 2017. "Significant work is being done to prevent infectious diseases in Azerbaijan (Azərbaycanda yoluxucu xəstəliklərin profilaktikası sahəsində əhəmiyyətli işlər görülür)."

[<http://sehiyye.gov.az/main/1498-azbaycanda-yoluxucu-xstliklrin-profilaktikas-sahsind-hmiyytli-ilr-grlr.html>] Accessed

December 2020 and January 2021

[2] Republic of Azerbaijan. Ministry of Health. August 8 2008. "NATIONAL INFLUENZA PANDEMIC PREPAREDNESS PLAN OF THE REPUBLIC OF AZERBAIJAN." [http://sehiyye.gov.az/files/pdf/PPP_OF_AZERBAIJAN_Eng.pdf] Accessed December 2020 and January 2021

[3] Republic of Azerbaijan. Ministry of Health. 2020. Website. [<http://sehiyye.gov.az>] Accessed December 2020 and January 2021

[4] Republic of Azerbaijan. Ministry of Emergency Situations. 2020. "Activity fields." [<https://www.fhn.gov.az/index.php?eng/menu/20>] Accessed December 2020 and January 2021

[5] Republic of Azerbaijan. State Security Service. 2020. Website. [<https://www.dtx.gov.az/en/>] Accessed December 2020 and January 2021

[6] Republic of Azerbaijan. Ministry of Defense. 2020. Website. [<https://mod.gov.az/en/>] Accessed December 2020 and January 2021

4.3 MEDICAL COUNTERMEASURES AND PERSONNEL DEPLOYMENT

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

4.3.1a

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

Yes = 1 , No = 0

Current Year Score: 0

Evidence is insufficient that Azerbaijan has a plan, program, or guidelines in place for dispensing medical countermeasures other than vaccines for national use during a public health emergency.

While the country has an aggressive policy to fight infectious diseases through prophylactic and anti-epidemic measures, [1] available evidence points to only one stand-alone plan specifically to address a public health emergency arising from an outbreak of infectious disease: the National Influenza Pandemic Preparedness Plan of 2008. Among other measures, this plan mandates that antiviral medicines be permanently stocked, that future supplies of such medications be ensured, and that their distribution from the national stock during such outbreaks be clearly organized. The plan does not specifically discuss other types of countermeasures. [2]

While the website of the Ministry of Emergency Situations states that it does manage the national reserves of emergency stocks, it does not state what these stocks are. Moreover, the Ministry does not focus on managing infectious disease outbreaks as one of its policy areas. [3]

Finally, neither the Ministry of Defense nor the State Security Service indicate that they are involved in dispensing medical supplies during public health emergencies. [4, 5]

[1] Republic of Azerbaijan. Ministry of Health. January 18 2017. "Significant work is being done to prevent infectious diseases in Azerbaijan (Azərbaycanda yoluxucu xəstəliklərin profilaktikası sahəsində əhəmiyyətli işlər görülür)." [<http://sehiyye.gov.az/main/1498-azbaycanda-yoluxucu-xstliklrin-profilaktikas-sahsind-hmiyytli-ilr-grlr.html>] Accessed December 2020 and January 2021

[2] Republic of Azerbaijan. Ministry of Health. August 8 2008. "NATIONAL INFLUENZA PANDEMIC PREPAREDNESS PLAN OF

THE REPUBLIC OF AZERBAIJAN". [http://sehiyye.gov.az/files/pdf/PPP_OF_AZERBAIJAN_Eng.pdf] Accessed December 2020 and January 2021

[3] Republic of Azerbaijan. Ministry of Emergency Situations. 2020. "Activity fields." [<https://www.fhn.gov.az/index.php?eng/menu/20>] Accessed December 2020 and January 2021

[4] Republic of Azerbaijan. State Security Service. 2020. Website. [<https://www.dtx.gov.az/en/>] Accessed December 2020 and January 2021

[5] Republic of Azerbaijan. Ministry of Defense. 2020. Website. [<https://mod.gov.az/en/>] Accessed 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 little readily available evidence of a specific public plan in Azerbaijan to receive health personnel from other countries to respond to a public health emergency. The country has for decades received international assistance for disaster relief, but its one stand-alone plan specifically for a public health emergency due to an outbreak of infectious disease does not contain specific provisions for accepting front-line aid workers from foreign countries during such an event.

The plan, the National Influenza Pandemic Preparedness Plan of 2008, simply mandates the Ministry of Health to communicate with international institutions and coordinate relations with foreign countries during Phase 3 of a pandemic. It does support cooperation with the Azerbaijan Red Crescent Society and other voluntary institutions. [1] The mandate for interaction with the Azerbaijan Red Crescent was established in law in 2007, wherein the relationship with the government, non-governmental organisations, institutions and local authorities was clarified. The Azerbaijan Red Crescent has long-established ties with several national aid societies such as the Danish, German and Italian Red Crosses, Magen David Adom Israel and the Turkish Red Crescent. [2] However, to-date most of the activities of these affiliates of the International Committee of the Red Cross appear to be oriented towards helping in relief operations in manmade and natural disasters. [3]

In 2006 the Ministry of Emergency Situations signed a Memorandum of Understanding with the Azerbaijan Red Crescent Society, but the resulting cooperation between the two entities focuses on the provision of first aid to affected populations. Ultimately, the Ministry does not focus on managing infectious disease outbreaks as one of its policy areas; it is more concerned with managing the effects on health arising from natural disasters. [4]

[1] Republic of Azerbaijan. Ministry of Health. August 8 2008. "NATIONAL INFLUENZA PANDEMIC PREPAREDNESS PLAN OF THE REPUBLIC OF AZERBAIJAN". [http://sehiyye.gov.az/files/pdf/PPP_OF_AZERBAIJAN_Eng.pdf] Accessed December 2020 and January 2021

[2] International Federation of Red Cross and Red Crescent Societies. 2011. "Revised Plan 2011: Azerbaijan Executive Summary". [https://reliefweb.int/sites/reliefweb.int/files/resources/B92BD7C7435845B8852577CB005BFD81-Full_Report.pdf] Accessed December 2020 and January 2021

[3] International Committee of the Red Cross. September 2018. "ICRC in Azerbaijan: Facts and figures, January - June 2018". [<https://www.icrc.org/en/document/icrc-azerbaijan-facts-and-figures-january-june-2018>] Accessed December 2020 and January 2021

[4] Republic of Azerbaijan. Ministry of Emergency Situations. September 12 2019. "Ministry of Emergency Situations and Azerbaijan Red Crescent Society hold event." [<https://www.fhn.gov.az/index.php?eng/news/tedbir////33902>] Accessed

December 2020 and January 2021

4.4 HEALTHCARE ACCESS

4.4.1 Access to healthcare

4.4.1a

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

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

Current Year Score: 3

2020

World Policy Analysis Center

4.4.1b

Access to skilled birth attendants (% of population)

Input number

Current Year Score: 99.8

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: 975.97

2017

WHO Global Health Expenditure database

4.4.2 Paid medical leave

4.4.2a

Are workers guaranteed paid sick leave?

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

Current Year Score: 2

2020

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

Available evidence does not indicate that Azerbaijan's government has issued overarching legislation or regulations to provide prioritised health care services to healthcare workers who become sick as a result of responding to a public health emergency.

Evidence does suggest that there is just one stand-alone plan specifically addressing a public health emergency due to an outbreak of infectious disease--the National Influenza Pandemic Preparedness Plan of 2008, which in Chapter 3 stipulates the groups that are entitled to prioritised immunisation. In the first rank are professional groups responsible for preserving important public functions, such as public health workers, managing staff of the national administration with important public responsibilities, defense, police, firefighting personnel, and workers in public utilities such as water supply and sewerage, power engineering, transport and telecommunications. While the document states that "the fact that health-care and animal workers are likely to assume greater risks to their own health than other members of society is an argument in favor of giving them priority access to influenza vaccination to prevent infection and to antivirals if they become sick", it does not go as far as to state that healthcare workers should be given priority access to treatment such as antivirals. [1]

Finally, the Ministry of Health does not indicate that it has rules in place to prioritize the care of health care workers in the wake of a public health emergency. [2]

[1] Republic of Azerbaijan. Ministry of Health. August 8 2008. "NATIONAL INFLUENZA PANDEMIC PREPAREDNESS PLAN OF THE REPUBLIC OF AZERBAIJAN". [http://sehiyye.gov.az/files/pdf/PPP_OF_AZERBAIJAN_Eng.pdf] Accessed December 2020 and January 2021

[2] Republic of Azerbaijan. Ministry of Health. 2020. Website. [<http://www.sehiyye.gov.az/>] Accessed December 2020 and January 2021

4.5 COMMUNICATIONS WITH HEALTHCARE WORKERS DURING A PUBLIC HEALTH EMERGENCY

4.5.1 Communication with healthcare workers

4.5.1a

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

Yes = 1 , No = 0

Current Year Score: 0

Available evidence does not indicate that Azerbaijan has an overarching system in place for public health officials and healthcare workers to communicate in a two-way manner during a public health emergency.

Evidence does suggest that there is just one stand-alone plan specifically addressing a public health emergency due to an outbreak of infectious disease--the National Influenza Pandemic Preparedness Plan of 2008, which describes a communications strategy involving such participants. The plan mandates consistent and continuous coordination among the relevant national and regional public health bodies, according these authorities specific responsibilities. The domestic news media is also instructed not to broadcast or publish any information from unauthorised sources on matters related to the advancement of the pandemic. [1] Nevertheless, the plan envisions one-way dissemination of information "from the top down" and does not directly provide a mechanism for reciprocal communication by other stakeholders. However, neither the Ministry of Emergency Situations nor the Ministry of Health indicate that they have a communication plan in place for public-sector workers to use during a public health emergency. [2, 3]

The World Health Organization (WHO) indicated in 2019 that its Regional Office had launched an Emergency Risk Communication (ERC) five-step package to help Azerbaijan build its national capacity in ERC according to International Health Regulations (IHR) standards; the WHO also noted that the country had by that year completed steps 1 to 3 of the package including training, capacity mapping and plan writing. [4]

Finally, in their accounts of Azerbaijan's official policy responses to the COVID-19 coronavirus pandemic outbreak in early 2020, the Office of the United Nations High Commissioner for Human Rights (OHCHR). The World Health Organisation (WHO) give no indication that the healthcare workforce strategy during the crisis makes particular stipulations for workers with regard to communication methods. [5, 6]

[1] Republic of Azerbaijan. Ministry of Health. August 8 2008. "NATIONAL INFLUENZA PANDEMIC PREPAREDNESS PLAN OF THE REPUBLIC OF AZERBAIJAN". [http://sehiyye.gov.az/files/pdf/PPP_OF_AZERBAIJAN_Eng.pdf] Accessed December 2020 and January 2021

[2] Republic of Azerbaijan. Ministry of Emergency Situations. "Activity fields". [<http://www.fhn.gov.az/?eng/menu/20>] Accessed December 2020 and January 2021

[3] Republic of Azerbaijan. Ministry of Health. 2020. Website. [<http://www.sehiyye.gov.az/>] Accessed December 2020 and January 2021

[4] World Health Organization (WHO). Regional Office for Europe. 2019. "Investing for a safe and healthy Azerbaijan: WHO Health Emergencies Programme at the country level." [https://www.euro.who.int/__data/assets/pdf_file/0003/430680/03_Azerbaijan.pdf] Accessed December 2020 and January 2021

[5] Office of the United Nations High Commissioner for Human Rights (OHCHR). Undated. "COVID-19 response measures in the Republic of Azerbaijan." [<https://www.ohchr.org/Documents/Events/GoodPracticesCoronavirus/azerbaijan-submission-covid19.pdf>] Accessed April 2021

[6] WHO Regional Office for Europe and European Observatory on Health Systems and Policies. COVID-19 Health System Response Monitor. Azerbaijan. Policy responses for Azerbaijan. "Workforce." [<https://www.covid19healthsystem.org/countries/azerbaijan/livinghit.aspx?Section=2.2%20Workforce&Type=Section>] Accessed April 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

Available evidence does not indicate that Azerbaijan has an overarching system in place for public health officials and healthcare workers to communicate during a public health emergency that encompasses workers in both public and private healthcare.

Evidence indicates that Azerbaijan has just one stand-alone plan specifically addressing a public health emergency due to an outbreak of infectious disease--the National Influenza Pandemic Preparedness Plan of 2008. The plan mandates national and regional public health officials and healthcare workers to communicate consistently and continuously during an emergency and accords a role in the control process to news media and to volunteers such as staff of the Azerbaijan Red Crescent. However, it does not specifically address the role of private-sector healthcare workers in such an event. [1] Similarly, the plan accords the Ministry of Emergency Situations a coordinating role in a pandemic emergency, but does not elaborate on how it should communicate with private-sector actors. [1]

In their accounts of Azerbaijan's official policy responses to the COVID-19 coronavirus pandemic outbreak in early 2020, the Office of the United Nations High Commissioner for Human Rights (OHCHR). The World Health Organisation (WHO) give no indication that the healthcare workforce strategy during the crisis makes particular stipulations for workers with regard to communication methods. [4, 5]

Finally, neither the Ministry of Emergency Situations nor the Ministry of Health indicate that they have an overarching system in place for public health personnel to use for communication during a public health emergency that encompasses workers in both public and private healthcare. [2, 3]

[1] Republic of Azerbaijan. Ministry of Health. August 8 2008. "NATIONAL INFLUENZA PANDEMIC PREPAREDNESS PLAN OF THE REPUBLIC OF AZERBAIJAN". [http://sehiyye.gov.az/files/pdf/PPP_OF_AZERBAIJAN_Eng.pdf] Accessed December 2020 and January 2021

[2] Republic of Azerbaijan. Ministry of Emergency Situations. "Activity fields". [<http://www.fhn.gov.az/?eng/menu/20>] Accessed 2020 and January 2021

[3] Republic of Azerbaijan. Ministry of Health. 2020. Website. [<http://www.sehiyye.gov.az/>] Accessed 2020 and January 2021

[4] Office of the United Nations High Commissioner for Human Rights (OHCHR). Undated. "COVID-19 response measures in the Republic of Azerbaijan." [<https://www.ohchr.org/Documents/Events/GoodPracticesCoronavirus/azerbaijan-submission-covid19.pdf>] Accessed April 2021

[5] WHO Regional Office for Europe and European Observatory on Health Systems and Policies. COVID-19 Health System Response Monitor. Azerbaijan. Policy responses for Azerbaijan. "Workforce." [<https://www.covid19healthsystem.org/countries/azerbaijan/livinghit.aspx?Section=2.2%20Workforce&Type=Section>] Accessed April 2021

4.6 INFECTION CONTROL PRACTICES AND AVAILABILITY OF EQUIPMENT

4.6.1 Healthcare associated infection (HCAI) prevention and control programs

4.6.1a

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

Yes = 1 , No = 0

Current Year Score: 0

There is insufficient evidence that Azerbaijan's national public health system monitors and tracks the number of healthcare-associated infections that take place in healthcare facilities.

An article published in the local press in February 2018 quotes the Chief Epidemiologist of the Ministry of Health as indicating that Azerbaijan is trying to overcome hospital-acquired (nosocomial) infections, which are still one of the topical health problems in the country, although current levels do "not exceed the epidemiological range" and "even in the largest hospitals of the country there are no cases of death from these infections." [1]

Otherwise, there is little information published by the Ministry of Health on its monitoring and tracking of such infections as a category separate from general epidemiological surveillance. [2] That said, an infection control committee exists at the Central Clinic (Mərkəzi Klinika), the nation's premier state hospital, which works to prevent the occurrence of hospital infections in patients, workers and visitors. During the current COVID-19 coronavirus pandemic, the clinic provides no information on whether it is engaged in tracking COVID-19 infections among healthcare personnel. [3]

Finally, neither the Ministry of Health's Centre for Public Health and Reforms (ISIM--the national public health institute) nor the Ministry of Emergency Situations indicate that they track hospital infections. [4, 5]

[1] REPORT News Agency. February 21 2018. "Chief epidemiologist: Nosocomial infections not epidemiological in Azerbaijan." [<https://report.az/en/health/chief-epidemiologist-nosocomial-infections-not-epidemiological-in-azerbaijan/>] Accessed December 2020 and January 2021

[2] Republic of Azerbaijan. Ministry of Health. 2020. "Sanitary-epidemiological service (Sanitariya-epidemioloji xidmət)." [<http://health.gov.az/sanitariya-epidemioloji-xidmet.html>] Accessed December 2020 and January 2021

[3] Central Clinic (Mərkəzi Klinika). "Infection Control Committee (İnfeksiya Nəzarət Komitəsi)." [<http://www.merkeziklinika.az/merkezler/view/9>] Accessed December 2020 and January and April 2021

[4] Republic of Azerbaijan. Ministry of Health. Center for Public Health and Reforms (ISIM). 2020. Website. [<https://isim.az/en/main>] Accessed December 2020 and January 2021

[5] Republic of Azerbaijan. Ministry of Emergency Situations. 2020. Website. [<http://www.fhn.gov.az/>] Accessed December 2020 and January 2021

4.7 CAPACITY TO TEST AND APPROVE NEW MEDICAL COUNTERMEASURES

4.7.1 Regulatory process for conducting clinical trials of unregistered interventions

4.7.1a

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

Yes = 1 , No = 0

Current Year Score: 1

Azerbaijan's national laws require an ethical review (e.g. from an ethics committee or via Institutional Review Board approval) before beginning a clinical trial.

Azerbaijan's regulatory authority for medicines is called the Analytical Expertise Center. [1] It is a semi-autonomous agency responsible for the inspection, authorisation, registration, licensing, quality control and market supervision of medicinal products in the country (the relevant law provides a broad definition of such products, encompassing pharmacologically active substances as well as medical devices). [2]

The Center is also in charge of clinical trials control and pharmacovigilance. Laws require both authorization from the Center for conducting clinical trials as well as prior agreement by an ethics committee or institutional review board. [3]

[1] Republic of Azerbaijan. Analytical Expertise Center. Website. [<http://www.pharma.az/>] Accessed December 2020 and January 2021

[2] Republic of Azerbaijan. Analytical Expertise Center (Analitik Ekspertiza Merkezi). Legislation. "Law on Medicines (Dərman vasitələri haqqında Qanun)." [<http://www.pharma.az/index.php?lang=1&ind=main&id=184>] Accessed December 2020 and January 2021

[3] Pharmexcil. 2011. "Azerbaijan: REGULATIONS OF STATE REGISTRATION AND REGISTER: COMPILATION OF MEDICINAL PRODUCTS: MEDICINES REGULATION - Pharmaceutical Regulatory framework". [pharmexcil.org/uploadfile/ufiles/1440510955_Azerbaijan_DrugReg_Report_4web.pdf] Accessed December 2020 and January 2021

4.7.1b

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

Yes = 1, No = 0

Current Year Score: 0

Available evidence does not indicate that there is an expedited process in Azerbaijan for approving clinical trials for unregistered medical countermeasures (MCMs) to treat ongoing pandemics.

By law, the Analytical Expertise Center, Azerbaijan's regulatory authority for medicinal products, must authorise the registration and marketing for all medicinal products sold on the domestic market, including those intended for vital and urgent cases. [1, 2, 4] The relevant law, the Law on Medicines, provides a broad definition of such products, encompassing pharmacologically active substances as well as medical devices. [3]

While exceptions or waivers for the non-commercial use of certain medicinal products do exist in the following circumstances: "...medicines for humanitarian purposes, rare medicines, medicines used to cure diseases that require specific treatment, and WHO pre-qualification medicines without public registration in Azerbaijan...", there is little to no public evidence of a law or regulation authorizing the expedited approval of such products in a pandemic situation. [2, 5]

Finally, the Ministry of Health does not indicate that it oversees such a process. [6]

[1] Republic of Azerbaijan. Analytical Expertise Center. Website. [<http://www.pharma.az/>] Accessed December 2020 and January 2021

[2] Pharmexcil. 2011. "Azerbaijan: REGULATIONS OF STATE REGISTRATION AND REGISTER: COMPILATION OF MEDICINAL PRODUCTS: MEDICINES REGULATION - Pharmaceutical Regulatory framework". [pharmexcil.org/uploadfile/ufiles/1440510955_Azerbaijan_DrugReg_Report_4web.pdf] Accessed December 2020 and January 2021

[3] Republic of Azerbaijan. Analytical Expertise Center (Analitik Ekspertiza Merkezi). Legislation. "Law on Medicines (Dərman

vasitələri haqqında Qanun)." [<http://www.pharma.az/index.php?lang=1&ind=main&id=184>] Accessed December 2020 and January 2021

[4] Republic of Azerbaijan. Analytical Expertise Center. "List of medicines used in vital and urgent cases (Həyati vacib və təcili hallarda istifadə olunan dərman preparatlarının siyahısı)." [<http://www.pharma.az/index.php?lang=1&ind=main&id=98>] Accessed December 2020 and January 2021

[5] Republic of Azerbaijan. Analytical Expertise Center. "Legislation (Qanunvericilik)." [<http://www.pharma.az/index.php?lang=1&ind=main&id=23>] Accessed January 2021

[6] Republic of Azerbaijan. Ministry of Health. 2020. Website. [<http://health.gov.az/>] Accessed December 2020 and January 2021

4.7.2 Regulatory process for approving medical countermeasures

4.7.2a

Is there a government agency responsible for approving new medical countermeasures (MCM) for humans?

Yes = 1 , No = 0

Current Year Score: 1

Azerbaijan has a government agency responsible for approving new medical countermeasures (MCMs) for humans. The agency is the Analytical Expertise Center, a semi-autonomous body responsible for the inspection, authorisation, registration, licensing, quality control and market supervision of medicinal products in the country. [1] By law, this body must authorise the registration and marketing for all medicinal products sold on the domestic market, including those intended for vital and urgent cases. [2, 3, 4]

The relevant law, the Law on Medicines, provides a broad definition of such products, encompassing diagnostics, prophylaxes and therapeutics that are pharmacologically active substances as well as medical devices and equipment. [3] Exceptions or waivers for registration do exist for certain products, such as medicines for humanitarian purposes or medicines used to cure diseases that require specific treatment, for non-commercial use only. [2]

[1] Republic of Azerbaijan. Analytical Expertise Center. Website. [<http://www.pharma.az/>] Accessed December 2020 and January 2021

[2] Pharmexcil. 2011. "Azerbaijan: REGULATIONS OF STATE REGISTRATION AND REGISTER: COMPILATION OF MEDICINAL PRODUCTS: MEDICINES REGULATION - Pharmaceutical Regulatory framework". [pharmexcil.org/uploadfile/ufiles/1440510955_Azerbaijan_DrugReg_Report_4web.pdf] Accessed December 2020 and January 2021

[3] Republic of Azerbaijan. Analytical Expertise Center. Legislation. "Law on Medicines (Dərman vasitələri haqqında Qanun)." [<http://www.pharma.az/index.php?lang=1&ind=main&id=184>] Accessed December 2020 and January 2021

[4] Republic of Azerbaijan. Analytical Expertise Center. "List of medicines used in vital and urgent cases (Həyati vacib və təcili hallarda istifadə olunan dərman preparatlarının siyahısı)." [<http://www.pharma.az/index.php?lang=1&ind=main&id=98>] Accessed December 2020 and January 2021

4.7.2b

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

Yes = 1 , No = 0

Current Year Score: 1

Evidence suggests that in Azerbaijan there is an expedited process for approving medical countermeasures for human use during public health emergencies. But specific regulatory details on this process are not readily available.

By law, the Analytical Expertise Centre, Azerbaijan's medicinal products regulator, must approve all medicinal products sold on the domestic market. [1, 2] The legal definition of such products is broad, encompassing diagnostic, prophylactic and therapeutic materials, pharmacologically active substances, and medical devices and equipment. [3]

According to the Azerbaijan Pharmaceutical Country Profile, published in 2011 by the national Ministry of Health in collaboration with the World Health Organization; "In Azerbaijan, legal provisions require marketing authorization (registration) for all pharmaceutical products on the market, however exceptions/waivers for registration do exist. Medicines for humanitarian purposes, rare medicines, [and] medicines used to cure diseases that require specific treatment and WHO prequalification medicines without public registration in Azerbaijan may be imported only for non-commercial use." The study adds that such exceptions and waivers were authorized by Decree #108-2007 of the Cabinet of Ministers. [4]

Azerbaijan's Law on Medicines indicates in Article 4.2.7 that the state approves the "List of medicinal products used in vital and emergency situations" as well as the "List of medicinal products released without doctor's prescription." In Article 6.5.3, the law indicates that medicinal products imported with the purpose to be used during epidemics, natural disasters and other emergency situations" still must be registered by the state. In Article 9.3., the law notes; "In cases of epidemics, natural disasters and other emergencies, import of medicinal products, which are not registered in Azerbaijan Republic, is allowed by the decision of the relevant executive authority, if only the documents confirming their registration and use in the manufacturer's country are available." [3]

However, the Ministry of Health provides no readily available information on how it oversees such a process. [5]

By late 2020, in response to the ongoing COVID-19 coronavirus pandemic, the government of Azerbaijan was developing a policy on vaccinations as a way to combat the virus, with the health authorities assessing different vaccine products and conducting bilateral negotiations with producing nations such as nearby Turkey. [6] In December 2020, prior to importing any vaccines, the government legally exempted such imports from value added tax (VAT) for a period of 1 to 2 years from January 1, 2021. [7] These one-off policies culminated in the adoption on January 16 2021 of a comprehensive, formalized strategy on vaccinations against the disease, covering the years 2021 and 2022. The new strategy rationalizes the vaccination process in the country, and concentrates activities on such areas as assessment of high-risk groups, selection of vaccines, purchase, import and storage of vaccines, management of vaccination points and distribution of vaccines, training of operational staff performing vaccinations, control, monitoring and evaluation of vaccination measures, and the regular education of the population. [8]

[1] Republic of Azerbaijan. Analytical Expertise Center. Website. [<http://www.pharma.az/>] Accessed December 2020 and January 2021

[2] Pharmexcil. 2011. "Azerbaijan: REGULATIONS OF STATE REGISTRATION AND REGISTER: COMPILATION OF MEDICINAL PRODUCTS: MEDICINES REGULATION - Pharmaceutical Regulatory framework". [http://pharmexcil.org/uploadfile/ufiles/1440510955_Azerbaijan_DrugReg_Report_4web.pdf] Accessed December 2020 and January 2021

[3] Republic of Azerbaijan. Analytical Expertise Center. Legislation. "Law on Medicines (Dərman vasitələri haqqında Qanun)." [<http://www.pharma.az/index.php?lang=1&ind=main&id=184>] Accessed December 2020 and January 2021

[4] World Health Organization (WHO). 2011. "Azerbaijan Pharmaceutical Country Profile."

[https://www.who.int/medicines/areas/coordination/Azerbaijan_PSCPNarrativeQuestionnaire_12052011.pdf?ua=1] Accessed

December 2020 and January 2021

[5] Republic of Azerbaijan. Ministry of Health. 2020. Website. [<http://www.sehiyye.gov.az/>] Accessed December 2020 and January 2021

[6] Azer News. December 16 2020. 'Azerbaijan reveals list of COVID-19 vaccines possible to import.'
[<https://www.azernews.az/healthcare/173942.html>] Accessed January 2021

[7] Radio Free Europe in Azerbaijan (Azadliq Radosu). Azerbaijan News. December 30 2020. "The coronavirus vaccine is exempt from tax." [<https://www.azadliq.org/a/31026185.html>] Accessed January 2021

[8] Republic of Azerbaijan. Cabinet of Ministers. January 16 2021. "VACCINATION STRATEGY Against COVID-19 in the Republic of Azerbaijan for 2021-2022 (Azərbaycan Respublikasında COVID-19 xəstəliyi əleyhinə 2021-2022-ci illər üçün VAKSİNASIYA STRATEGİYASI)." [<https://nk.gov.az/media/files/aacabbd711bceaf011679298e9eb8a89.pdf>] Accessed January 2021

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

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

5.1.1 Official IHR reporting

5.1.1a

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

Yes = 1 , No = 0

Current Year Score: 1

2020

World Health Organization

5.1.2 Integration of health into disaster risk reduction

5.1.2a

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

Yes = 1 , No = 0

Current Year Score: 0

Available evidence does not indicate that epidemics and pandemics are integrated into Azerbaijan's national risk reduction strategy, as the country as of yet does not have a general, stand-alone risk-reduction strategy intended for use during a public health emergency.

There exists one stand-alone national disaster risk-reduction strategy for pandemics, the Ministry of Health's National Influenza Pandemic Preparedness Plan of 2008. Although it addresses risk management issues, the plan specifically is in regard to influenza and does not take other infectious diseases into account. [1] According to the COVID-19 Health System Response Monitor (a joint effort of the WHO, the European Commission and the European Observatory on Health Systems and Policies), in the face of the COVID-19 outbreak Azerbaijan did activate its 2008 influenza plan but had to "revisit" it due to its limited scope. [2]

Azerbaijan's one law that might be considered a proxy for a national plan on infectious diseases and public health--the Law of the Republic of Azerbaijan on sanitary-epidemiological safety (1992)--in Article 25 simply mandates state health authorities to institute special policies in their areas of competence and to carry out control measures in the event of a threat of the emergence or spread of infectious, parasitic, mass non-communicable diseases. [3] Similarly, its basic law on fighting infectious diseases, "On Immunoprophylaxis of Infectious Diseases", makes minimal mention of epidemics (in regard to the administration of prophylactic vaccines in such an event) and does not discuss risk reduction. The law was issued in 2000 and has been amended only very slightly since then. [4]

However, there is evidence that Azerbaijan is currently developing a comprehensive plan to improve health emergency response capacity. Through its Health Emergencies Programme, the World Health Organization (WHO)'s Regional Office for Europe is active in Azerbaijan, helping the authorities there to build national capacity in planning for and responding to such emergencies according to International Health Regulations (IHR) standards. The WHO indicates that actions such as these form the foundation of a future National Action Plan for Health Emergency Preparedness. [5] However, neither the Ministry of Health, nor its Centre for Public Health and Reforms (ISIM--the national public health institute) nor the Ministry of Emergency Situations provide evidence that they currently have in place a comprehensive plan of this nature. [6, 7, 8]

[1] Republic of Azerbaijan. Ministry of Health. August 8 2008. "NATIONAL INFLUENZA PANDEMIC PREPAREDNESS PLAN OF THE REPUBLIC OF AZERBAIJAN". [http://sehiyye.gov.az/files/pdf/PPP_OF_AZERBAIJAN_Eng.pdf] Accessed December 2020 and January 2021

[2] World Health Organization (WHO) Regional Office for Europe, European Commission and European Observatory on Health Systems and Policies. COVID-19 Health System Response Monitor. 2020. "Azerbaijan." [<https://www.covid19healthsystem.org/countries/azerbaijan/livinghit.aspx?Section=1.1%20Health%20communication&Type=Section>] Accessed December 2020 and January 2021

[3] Republic of Azerbaijan. Ministry of Health. 1992. "Law of the Republic of Azerbaijan on sanitary-epidemiological safety (Sanitariya-epidemioloji salamatliq haqqında Azərbaycan Respublikasının Qanunu)." [<http://e-qanun.az/framework/7916>] Accessed December 2020 and January 2021

[4] Republic of Azerbaijan. Ministry of Health. 2000. "On Immunoprophylaxis of Infectious Diseases (Yoluxucu xəstəliklərin immunoprofilaktikası haqqında)." Text as amended 2008, 2014. [<http://sehiyye.gov.az/files/pdf/qanun/857.pdf>] Accessed December 2020 and January 2021

[5] World Health Organization (WHO). Regional Office for Europe. 2019. "Investing for a safe and healthy Azerbaijan: WHO Health Emergencies Programme at the country level." [https://www.euro.who.int/__data/assets/pdf_file/0003/430680/03_Azerbaijan.pdf] Accessed December 2020 and January 2021

[6] Republic of Azerbaijan. Ministry of Emergency Situations. "Activity fields." [<http://www.fhn.gov.az/?eng/menu/20>] Accessed December 2020 and January 2021

[7] Republic of Azerbaijan. Ministry of Health. 2020. Website. [<http://health.gov.az/>] Accessed December 2020 and January 2021

[8] Republic of Azerbaijan. Ministry of Health. Center for Public Health and Reforms (ISIM). 2020. Website. [<https://isim.az/en/main>] Accessed December 2020 and January 2021

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

5.2.1 Cross-border agreements

5.2.1a

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

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

Current Year Score: 0

Although Azerbaijan does conclude cross-border agreements with neighbouring countries and regional groups on public health issues, evidence does not indicate that such agreements involve cooperation during public health emergencies.

For example, while Azerbaijan is a participating member of CAESAR (Central Asian and Eastern European Surveillance of Antimicrobial Resistance) the regional AMR surveillance network, the rules of the network do not mandate any lateral exchange of information from members' national datasets. [1] Similarly, while as a European Neighbourhood Policy (ENP) partner country Azerbaijan cooperates closely with the European Centre for Disease Control and Prevention (ECDC), such as on tuberculosis surveillance and monitoring, the relationship does not imply a lateral exchange of data between partner countries in the event of a public health emergency. [2]

Finally, neither the Ministry of Emergency Situations nor the Ministry of Health indicate that they conclude cross-border agreements involving cooperation during public health emergencies. [3, 4]

[1] World Health Organization (WHO). Central Asian and Eastern European Surveillance of Antimicrobial Resistance (CAESAR). "CAESAR Manual Version 2, 2015." [https://www.euro.who.int/__data/assets/pdf_file/0005/293369/CAESAR-V2-Surveillance-Antimicrobial-Resistance-2015-en.pdf] Accessed December 2020

[2] World Health Organization (WHO) & European Centre for Disease Control and Prevention (ECDC). "Tuberculosis surveillance and monitoring in Europe 2019. 2017 data." [https://www.ecdc.europa.eu/sites/default/files/documents/tuberculosis-surveillance-monitoring-Europe-2019-20_Mar_2019.pdf] Accessed December 2020

[3] Republic of Azerbaijan. Ministry of Emergency Situations. 2020. Website. [http://www.fhn.gov.az/] Accessed December 2020 and January 2021

[4] Republic of Azerbaijan. Ministry of Health. 2020. Website. [http://health.gov.az/] Accessed 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

Although Azerbaijan does conclude cross-border agreements with neighbouring countries and regional groups on public health issues, evidence does not indicate that such agreements address animal health emergencies.

Azerbaijan is developing a cooperation framework with neighbouring countries with regards to animal health emergencies,

and already reports to the World Organization for Animal Health (OIE), the main international network for animal health. [1] Aside from its existent cooperation with the OIE, Azerbaijan has begun to cooperate with neighbouring countries under the Global Health Security Agenda (GHSA)'s framework to develop an initiative called the Biosurveillance Network of the Silk Road (BNSR). The intended goal is the adoption of a regional approach for communicable disease surveillance, such as through the implementation of integrated electronic systems. The surveillance framework encompasses both human and animal diseases. The initiative, however, is still in its infancy and concrete implementation strategies have not yet been mapped out. [2]

Finally, neither the Ministries of Health, Emergency Situations or Agriculture indicate that they conclude cross-border agreements involving cooperation during animal health emergencies. [3, 4, 5]

[1] World Organisation for Animal Health (OIE). WAHIS Interface. "Country Information: Azerbaijan".

[http://www.oie.int/wahis_2/public/wahid.php/Countryinformation/countryhome] Accessed December 2020 and January 2021

[2] Science & Technology Center in Ukraine (STCU). September 2019. "Biosurveillance Network of the Silk Road (BNSR) Annual Meeting." [<http://www.stcu.int/news/index.php?id=505>] December 2020 and January 2021

[3] Republic of Azerbaijan. Ministry of Emergency Situations. 2020. Website. [<http://www.fhn.gov.az/>] Accessed December 2020 and January 2021

[4] Republic of Azerbaijan. Ministry of Health. 2020. Website. [<http://health.gov.az/>] Accessed December 2020 and January 2021

[5] Republic of Azerbaijan. Ministry of Agriculture. 2021. Website. [<http://axa.gov.az/>] Accessed December 2020 and January 2021

5.3 INTERNATIONAL COMMITMENTS

5.3.1 Participation in international agreements

5.3.1a

Does the county have signatory and ratification (or same legal effect) status to the Biological Weapons Convention?

Signed and ratified (or action having the same legal effect) = 2, Signed = 1, Non-compliant or not a member = 0

Current Year Score: 2

2021

Biological Weapons Convention

5.3.1b

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

Yes = 1, No = 0

Current Year Score: 1

2021

Biological Weapons Convention

5.3.1c

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

Yes = 1, No = 0

Current Year Score: 1

2021

Biological Weapons Convention

5.3.1d

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

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

Current Year Score: 3

2021

Biological Weapons Convention

5.3.2 Voluntary memberships

5.3.2a

Does the country meet at least 2 of the following criteria?

- Membership in Global Health Security Agenda (GHSA)
- Membership in the Alliance for Country Assessments for Global Health Security and IHR Implementation (JEE Alliance)
- Membership in the Global Partnership Against the Spread of Weapons and Materials of Mass Destruction (GP)
- Membership in the Australia Group (AG)
- Membership in the Proliferation Security Initiative (PSI)

Needs to meet at least two of the criteria to be scored a 1 on this measure. , Yes for five = 1 , Yes for four = 1 , Yes for three = 1 , Yes for two = 1 , Yes for one = 0 , No for all = 0

Current Year Score: 1

2021

Global Health Security Agenda; JE Alliance; Global Partnership; Australia Group; PSI

5.4 JOINT EXTERNAL EVALUATION (JEE) AND PERFORMANCE OF VETERINARY SERVICES PATHWAY (PVS)

5.4.1 Completion and publication of a Joint External Evaluation (JEE) assessment and gap analysis

5.4.1a

Has the country completed a Joint External Evaluation (JEE) or precursor external evaluation (e.g., GHSA pilot external assessment) and published a full public report in the last five years?

Yes = 1, No = 0

Current Year Score: 0

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

Available evidence does not indicate that Azerbaijan has allocated funds from the national budget specifically to improve capacity to address epidemic threats within the past three years. Annual state budget laws, such as the one for fiscal year 2020, do not provide a breakdown of the funds allocated made to the Ministry of Health and other related entities. [1] However, in recent years budgetary allocations have aimed to ensure the sustainability of the pension and health care systems, in particular because the country is moving towards establishing a mandatory health insurance scheme (MHIS) and thus increasing funds to meet this goal is a priority. [2] In November 2019 the State Agency on Mandatory Health Insurance reported that the first time in Azerbaijan, for fiscal year 2020 health care allocations in the state budget will reach AZN1.4bn (US\$820m--an increase of 31% over the previous year) and may reach AZN2.0bn in fiscal 2021, once the MHIS is fully in place. Quoting a member of the Parliament, the Agency noted that about 75-80% of the total budget expenditures on health care will be spent on the MHIS scheme, with around AZN300m going towards targeted programs including for oncological diseases, tuberculosis, blood diseases, thalassemia and other diseases. Some of the remainder will be "...spent on strengthening the material and technical base of medical institutions, and part on the salaries of medical workers." [3] Finally, on their websites the Ministry of Health and the Ministry of Agriculture do not publish a breakdown of their respective budgetary allocations, if any, toward improving capacity to address epidemic threats. [4, 5]

[1] Republic of Azerbaijan. Office of the Presidency. December 16 2019. "On a number of issues related to the application of the Law of the Republic of Azerbaijan "On the State Budget of the Republic of Azerbaijan for 2020" DECREE OF THE PRESIDENT OF THE REPUBLIC OF AZERBAIJAN. ("Azərbaycan Respublikasının 2020-ci il dövlət büdcəsi haqqında" Azərbaycan Respublikası Qanununun tətbiqi ilə bağlı bir sıra məsələlər barədə AZƏRBAYCAN RESPUBLİKASI PREZİDENTİNİN FƏRMANI)." [<http://www.e-qanun.gov.az/framework/43944>] Accessed December 2020 and January 2021

[2] Vergiler Magazine. December 17 2019. "The state budget for 2020 will serve sustainable economic development (2020-ci ilin dövlət büdcəsi davamlı iqtisadi inkişafa xidmət edəcək)." [<https://vergiler.az/news/economy/6226.html>] Accessed December 2020 and January 2021

[3] Republic of Azerbaijan. State Agency on Mandatory Health Insurance. November 4 2019. "For the first time in Azerbaijan, health care costs will be more than 2 billion manat." [<https://its.gov.az/bloq/azerbaycanda-sehiyye-xercleri-ilk-defe-2-milyard-manatdan-cox-olacaq>] Accessed December 2020 and January 2021

[4] Republic of Azerbaijan. Ministry of Health. 2021. Website. [<http://sehiyye.gov.az/>] Accessed January 2021

[5] Republic of Azerbaijan. Ministry of Agriculture. 2021. Website. [<http://www.agro.gov.az/>] Accessed January 2021

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

5.5.2a

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

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

Current Year Score: 0

2021

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

5.5.2b

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

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

Current Year Score: 0

2021

OIE PVS assessments

5.5.3 Financing for emergency response

5.5.3a

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

Yes = 1 , No = 0

Current Year Score: 0

Available evidence does not indicate that in Azerbaijan a publicly identified special emergency public financing mechanism exists that the government can access in the face of a public health emergency.

In terms of receiving outside funding for such a purpose, Azerbaijan is not currently listed among the eligible countries for International Development Association (IDA) borrowing, [1] and little if any of the aid that the country has received over the 2014 to 2020 period from international donors on public health--such as the The Global Fund to Fight AIDS, Tuberculosis and Malaria, the International Bank for Reconstruction and Development (IBRD), the Global Alliance for Vaccines and Immunisation (GAVI), the World Health Organization (WHO) and sovereign governments--specifically is for building capacity in emergency preparedness and response operations. [2]

On the home front, there is no evidence that the government has a dedicated national reserve fund for public health emergencies. The country's sole strategy document on such crises, the Ministry of Health's National Influenza Pandemic Preparedness Plan (2008) indicates that financial resources must be properly planned for in the face of an emerging health emergency, but otherwise does not address the topic of a reserve fund for such emergencies. [3] According to the WHO, it is assisting Azerbaijan in building its health emergency response capacity, activity which may form the foundation of a future National Action Plan for Health Emergency Preparedness. But the country does not yet have such a comprehensive plan.[4]

Furthermore, the Ministry of Health does not provide evidence of the existence of a dedicated health-emergency reserve funding mechanism, [5] while the Ministry of Emergency Situations--which does maintain emergency funding and material stocks--primarily deals with natural and manmade disasters rather than with infectious disease outbreaks, with the latter not being among its core policy concerns. [6]

[1] World Bank Group. International Development Association (IDA). "Borrowing Countries".

[<http://ida.worldbank.org/about/borrowing-countries>] Accessed December 2020 and January 2021

[2] Georgetown Infectious Disease Atlas (GIDA) Global Health Security Tracker. 2021. "Azerbaijan: Total funds received from 2014 to 2020." [<https://tracking.ghscosting.org/details/18/recipient>] Accessed January 2021

[3] Republic of Azerbaijan. Ministry of Health. August 8 2008. "NATIONAL INFLUENZA PANDEMIC PREPAREDNESS PLAN OF THE REPUBLIC OF AZERBAIJAN". [http://sehiyye.gov.az/files/pdf/PPP_OF_AZERBAIJAN_Eng.pdf] Accessed December 2020 and January 2021

[4] World Health Organization (WHO). Regional Office for Europe. 2019. "Investing for a safe and healthy Azerbaijan: WHO Health Emergencies Programme at the country level." [https://www.euro.who.int/__data/assets/pdf_file/0003/430680/03_Azerbaijan.pdf] Accessed December 2020 and January 2021

[5] Republic of Azerbaijan. Ministry of Health. 2020. Website.[<http://health.gov.az/>] Accessed December 2020 and January 2021

[6] Republic of Azerbaijan. Ministry of Emergency Situations. "Activity fields." [<http://www.fhn.gov.az/?eng/menu/20>] Accessed December 2020 and January 2021

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

5.5.4a

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

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

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

Current Year Score: 0

There is insufficient evidence that senior leaders (president or ministers) in Azerbaijan have in the past three years made a public commitment to commit resources to fight epidemic disease at home, such as by improving the country's domestic capacity to address epidemic threats by expanding financing or requesting support to improve capacity. There is, however, evidence of support for response efforts. There is less evidence of such officials' public commitments to support other countries to improve their own capacity to address such threats.

During the current COVID-19 coronavirus pandemic, Azerbaijan's highest public officials, most prominently President Ilham Aliyev, Prime Minister Ali Asadov, and Minister of Labor and Social Protection Sahil Babayev have made personal announcements on the current state of the fight against the disease. On occasion such statements do mention capacity-building efforts and assistance provided from abroad for this purpose. For example, on August 6 2020 the three leaders held a joint video conference on measures taken to combat the coronavirus pandemic, and announced such initiatives as; domestically funded efforts to build capacity such as through the construction of modular hospitals, invitations extended to foreign physicians, and paid social work and self-employment programs in which the World Bank and the United Nations Development Program participate. [1]

Although Azerbaijan works continuously with international agencies such as the World Health Organization (WHO) on capacity-building measures, [2] over the past three years the most senior leaders of the country have made very few direct statements on the technical aspects of such assistance. [3] Instead, such commitments appear to have been made on an institutional rather than personal level. According to the Georgetown Infectious Disease Atlas (GIDA) Global Health Security Tracker, as a recipient nation from 2014 to 2020 Azerbaijan has disbursed US\$72.88m and committed US\$91.34m worth of funds (US\$48.60m of the total amount disbursed has been allocated to address antimicrobial resistance). [4] As a donor nation, over this time period Azerbaijan has provided US\$15.50m and committed US\$15.00m; almost all disbursed funds have been allocated to the WHO over the past year for unspecified purposes. [5]

In recent years, Azerbaijan has stepped up its efforts to become a donor country. A dedicated agency, the Azerbaijan International Development Agency (AIDA) at the Ministry of Foreign Affairs, provides development assistance in the form of funds to foreign countries. It states that in 2015 the government provided US\$1m to the African nations of Guinea, Liberia and Sierra Leone to help them fight Ebola outbreaks on their territory. As the AIDA notes, "...the aid was provided via United Nations Development Programme (UNDP) and United Nations Office for the Coordination of Humanitarian Affairs (OCHA)." Such aid also appears to be provided, and commitments announced, at the institutional level. In any case, the AIDA offers no evidence of directly financing programs to build capacity to address epidemic threats, or of having made more recent direct funding commitments. [6]

[1] Republic of Azerbaijan. Office of the President. August 6 2020. "Ilham Aliyev held a video conference on measures taken to combat the coronavirus and the socio-economic situation." [https://president.az/articles/40297] Accessed January 2021

[2] World Health Organization (WHO). Regional Office for Europe. 2019. "Investing for a safe and healthy Azerbaijan: WHO Health Emergencies Programme at the country level." [https://www.euro.who.int/__data/assets/pdf_file/0003/430680/03_Azerbaijan.pdf] Accessed December 2020 and January 2021

[3] World Health Organization (WHO). Regional Office for Europe. Azerbaijan. "News." [https://www.euro.who.int/en/countries/azerbaijan/news/news/news?root_node_selection=71120] Accessed December 2020 and January 2021

[4] Georgetown Infectious Disease Atlas (GIDA) Global Health Security Tracker. 2021. "Azerbaijan: Total funds received from 2014 to 2020." [https://tracking.ghscosting.org/details/18/recipient] Accessed January 2021

[5] Georgetown Infectious Disease Atlas (GIDA) Global Health Security Tracker. 2021. "Azerbaijan: Total funds provided from 2014 to 2020." [https://tracking.ghscosting.org/details/18/funder] Accessed January 2021

[6] Republic of Azerbaijan. Ministry of Foreign Affairs. Azerbaijan International Development Agency (AIDA). "Humanitarian aid." [http://aida.mfa.gov.az/en/humanitar_yardim/page/1/] Accessed January 2021

5.5.4b

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

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

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

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

Current Year Score: 1

There is evidence that Azerbaijan has in the past three years requested financing or technical support from donors to improve the country's domestic capacity to address epidemic threats. The country is expanding its assistance to other nations in health care fields but not specifically for building capacity to address epidemic threats.

As a recipient of support, Azerbaijan cooperates in particular with World Health Organization (WHO)'s Regional Office for Europe, which through its Health Emergencies Programme helps in building the country's national capacity to plan for and respond to such emergencies according to International Health Regulations (IHR) standards. [1] The WHO's news feed for Azerbaijan indicates that it has for several years provided technical and policy guidance in Azerbaijan's efforts to improve its capacity to address epidemic threats, such as in eradicating malaria, measles and rubella. [2]

The Georgetown Infectious Disease Atlas (GIDA) Global Health Security Tracker indicates that as a recipient nation from 2014 to 2020 Azerbaijan has a disbursed US\$72.88m and committed US\$91.34m worth of funds. US\$48.60m of the total amount disbursed has been allocated to address antimicrobial resistance. [3] As a donor nation, over this time period Azerbaijan has provided US\$15.50m and committed US\$15.00m; almost all disbursed funds have been allocated to the WHO over the past year for unspecified purposes. [4]

As a provider of support, in recent years, Azerbaijan has stepped up its efforts to become a donor country. A dedicated agency, the Azerbaijan International Development Agency (AIDA) at the Ministry of Foreign Affairs, provides development assistance in the form of funds to foreign countries, although it offers no evidence of directly financing programs to build capacity to address epidemic threats since 2015, when it assisted African countries to fight an outbreak of Ebola virus.[5]

[1] World Health Organization (WHO). Regional Office for Europe. 2019. "Investing for a safe and healthy Azerbaijan: WHO Health Emergencies Programme at the country level." [https://www.euro.who.int/__data/assets/pdf_file/0003/430680/03_Azerbaijan.pdf] Accessed December 2020 and January 2021

[2] World Health Organization (WHO). Regional Office for Europe. Azerbaijan. "News." [https://www.euro.who.int/en/countries/azerbaijan/news/news/news?root_node_selection=71120] Accessed December 2020 and January 2021

[3] Georgetown Infectious Disease Atlas (GIDA) Global Health Security Tracker. 2021. "Azerbaijan: Total funds received from 2014 to 2020." [https://tracking.ghscosting.org/details/18/recipient] Accessed January 2021

[4] Georgetown Infectious Disease Atlas (GIDA) Global Health Security Tracker. 2021. "Azerbaijan: Total funds provided from 2014 to 2020." [https://tracking.ghscosting.org/details/18/funder] Accessed January 2021

[5] Republic of Azerbaijan. Ministry of Foreign Affairs. Azerbaijan International Development Agency (AIDA). "Humanitarian aid." [http://aida.mfa.gov.az/en/humanitar_yardim/page/1/] Accessed January 2021

5.5.4c

Is there evidence that the country has fulfilled its full contribution to the WHO within the past two years?

Yes = 1, No = 0

Current Year Score: 1

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

Available evidence does not clearly indicate that Azerbaijan has a publicly available policy for sharing genetic data, epidemiological data, as well as clinical specimens, and/or isolated specimens (biological materials) with international organizations and/or other countries that goes beyond influenza.

Although there is evidence that Azerbaijan is sharing surveillance data, there is no evidence of sharing genetic data or specimens. Azerbaijan is one of 19 countries participating in the Central Asian and Eastern European Surveillance of Antimicrobial Resistance (CAESAR). CAESAR "... is a network of national AMR surveillance systems and includes all countries of the WHO European Region that are not part of the European Antimicrobial Resistance Surveillance Network (EARS-Net), which is coordinated by the European Centre for Disease Prevention and Control in the European Union." However, there is no evidence of sharing anything beyond surveillance data. [1,2]

Finally, neither the Ministry of Health nor its Centre of Public Health and Reforms (ISIM--the national public health institute) nor the Ministry of Agriculture indicate that they have a policy in place to share data internationally, in a manner that includes the sending of physical samples or genetic data. [3, 4, 5]

[1] 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 December 2020 and January 2021

[2] World Health Organization (WHO). "Central Asian and Eastern 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 December 2020 and January 2021

[3] Republic of Azerbaijan. Ministry of Health. 2020. Website. [<http://sehiyye.gov.az/>] Accessed December 2020

[4] Republic of Azerbaijan. Ministry of Health. Center for Public Health and Reforms (ISIM). 2020. Website. [<https://isim.az/en/main>] Accessed December 2020

[5] Republic of Azerbaijan. Ministry of Agriculture. 2020. Website. [<http://www.agro.gov.az/>] Accessed 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 evidence from news media or from the World Health Organization (WHO) that Azerbaijan has not shared samples in accordance with the PIP framework in the past two years.

A scan of the international and local press does not provide evidence for or against such an action, and the WHO's PIP Framework annual report for 2019 does not mention Azerbaijan. [1]

[1] World Health Organization (WHO). 2017. "Pandemic Influenza Preparedness Framework Advisory Group 2019 Annual Report to the Director-General (PIP Framework Section 7.2.5)." [<https://www.who.int/influenza/pip/governance/PIPAG-2019AnnualReport.pdf?ua=1>] Accessed 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 from news media or from the World Health Organization (WHO) that Azerbaijan has not shared pandemic pathogen samples during an outbreak in the past two years. A scan of the international and local press does not provide evidence for or against such an action--including during the current COVID-19 coronavirus pandemic--and the WHO's data on disease outbreaks by country do not indicate a notifiable outbreak with this time period. [1]

As regards zoonoses and animal diseases with pandemic potential, Azerbaijan reports biennially to the World Organization for Animal Health (OIE), last doing so in 2019. [2]

The WHO considers Azerbaijan one of the 18 high-priority countries for tuberculosis surveillance, and provided the country with fairly good scores (e.g., a testing level of above 90%) for the completeness of its reporting into the Global TB database as of 2019 (2017 data apply). [3]

[1] World Health Organization (WHO). "Emergencies preparedness, response: Azerbaijan."

[<https://www.who.int/csr/don/archive/country/aze/en/>] Accessed December 2020 and January 2021

[2] World Organisation for Animal Health (OIE). WAHIS Interface. "OIE reporting history: Azerbaijan."

[https://www.oie.int/wahis_2/public/wahid.php/Countryinformation/reporting/reporthistory] Accessed December 2020

[3] World Health Organization (WHO) & European Centre for Disease Control and Prevention (ECDC). "Tuberculosis surveillance and monitoring in Europe 2019. 2017 data."

[https://www.ecdc.europa.eu/sites/default/files/documents/tuberculosis-surveillance-monitoring-Europe-2019-20_Mar_2019.pdf] Accessed 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: 2

2020

Economist Intelligence

6.1.1b

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

Input number

Current Year Score: 1

2020

Economist Intelligence

6.1.1c

Excessive bureaucracy/red tape (Economist Intelligence score; 0-4, where 4=best)

Input number

Current Year Score: 2

2020

Economist Intelligence

6.1.1d

Vested interests/cronyism (Economist Intelligence score; 0-4, where 4=best)

Input number

Current Year Score: 0

2020

Economist Intelligence

6.1.1e

Country score on Corruption Perception Index (0-100, where 100=best)

Input number

Current Year Score: 30

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: 1

2020

Economist Intelligence

6.1.2 Orderly transfers of power

6.1.2a

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

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

Current Year Score: 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: 2

2021

Economist Intelligence

6.1.4b

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

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

Current Year Score: 3

2020

UN Office of Drugs and Crime (UNODC)

6.1.4c

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

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

Current Year Score: 2

2021

Economist Intelligence

6.1.5 Armed conflict

6.1.5a

Is this country presently subject to an armed conflict, or is there at least a moderate risk of such conflict in the future?

No armed conflict exists = 4, Yes; sporadic conflict = 3, Yes; incursional conflict = 2, Yes, low-level insurgency = 1, Yes; territorial conflict = 0

Current Year Score: 1

2021

Economist Intelligence

6.1.6 Government territorial control

6.1.6a

Does the government's authority extend over the full territory of the country?

Yes = 1, No = 0

Current Year Score: 0

2021

Economist Intelligence

6.1.7 International tensions

6.1.7a

Is there a threat that international disputes/tensions could have a negative effect?

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

Current Year Score: 1

2021

Economist Intelligence

6.2 SOCIO-ECONOMIC RESILIENCE

6.2.1 Literacy

6.2.1a

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

Input number

Current Year Score: 99.8

2016

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: 0.68

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

2005

World Bank; Economist Impact

6.2.3b

Share of employment in the informal sector

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

Current Year Score: 2

The share of employment in the informal sector in Azerbaijan is very difficult to determine, but likely to be greater than 50%.

Official statistics for this metric are very limited. A study funded by the European Union and published in 2011 cites an earlier World Bank report from 2009 which stated that in Azerbaijan the share of workers employed without a contract increased from 45.3% to 59.5% between 2003 and 2006. The 2011 study relates figures from the State Statistical Committee indicating that in 2009 only 1.385 million out of 4.07 million people employed (34%) were registered on formal payrolls, rendering an informal employment rate of 66%. [1]

A scholarly paper published in 2015 in the Caucasus Analytical Digest estimates that the informal economy in Azerbaijan accounted for between 31.5% and 60% of GDP. [2]

Finally, another study, independently published in 2019 by a local scholar, concludes that the economically active population in Azerbaijan numbered around 4.7m in 2017, of which approx. 1.5m were waged workers with formal labor contracts, around 1.7m were agricultural workers, and the balance of roughly 1.5m workers were self-employed and not registered in

the formal labor system. This renders a figure of only 32% formal workers and 68% informal. [3]

[1] European Commission. Directorate-General for Employment, Social Affairs and Inclusion. 2011. "Social Protection and Social Inclusion in Azerbaijan. CHAPTER 1: ECONOMIC, DEMOGRAPHIC, LABOR MARKET AND EDUCATION TRENDS."

[<https://ec.europa.eu/social/BlobServlet?docId=6885&langId=en>] Accessed December 2020 and January 2021

[2] Farid Guliyev. July 17 2015. "The Informal Economy in Azerbaijan." Caucasus Analytical Digest, No. 75, July 17, 2015.

[<https://ssrn.com/abstract=2633425>] Accessed December 2020 and January 2021

[3] Fidan Abdurrahimli. October 30, 2019. "Informal Employment as a Side Effect of Informal Economy in Azerbaijan."

[<https://ssrn.com/abstract=3521811>] Accessed December 2020 and January 2021

6.2.3c

Coverage of social insurance programs (% of population)

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

Current Year Score: 3

2016, or latest available

World Bank; Economist Impact calculations

6.2.4 Public confidence in government

6.2.4a

Level of confidence in public institutions

Input number

Current Year Score: 2

2021

Economist Intelligence Democracy Index

6.2.5 Local media and reporting

6.2.5a

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

Input number

Current Year Score: 0

2021

Economist Intelligence Democracy Index

6.2.6 Inequality

6.2.6a

Gini coefficient

Scored 0-1, where 0=best

Current Year Score: 0.27

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: 2

2021

Economist Intelligence

6.3.2 Adequacy of airports

6.3.2a

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

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

Current Year Score: 3

2021

Economist Intelligence

6.3.3 Adequacy of power network

6.3.3a

What is the risk that power shortages could be disruptive?

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

Current Year Score: 3

2021

Economist Intelligence

6.4 ENVIRONMENTAL RISKS

6.4.1 Urbanization

6.4.1a

Urban population (% of total population)

Input number

Current Year Score: 56.03

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: 1.03

2008-2018

World Bank; Economist Impact

6.4.3 Natural disaster risk

6.4.3a

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

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

Current Year Score: 3

2021

Economist Intelligence

6.5 PUBLIC HEALTH VULNERABILITIES

6.5.1 Access to quality healthcare

6.5.1a

Total life expectancy (years)

Input number

Current Year Score: 72.86

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: 839.4

2019

WHO

6.5.1c

Population ages 65 and above (% of total population)

Input number

Current Year Score: 6.45

2019

World Bank

6.5.1d

Prevalence of current tobacco use (% of adults)

Input number

Current Year Score: 19.6

2018

World Bank

6.5.1e

Prevalence of obesity among adults

Input number

Current Year Score: 19.9

2016

WHO

6.5.2 Access to potable water and sanitation

6.5.2a

Percentage of homes with access to at least basic water infrastructure

Input number

Current Year Score: 91.39

2017

UNICEF; Economist Impact

6.5.2b

Percentage of homes with access to at least basic sanitation facilities

Input number

Current Year Score: 92.51

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: 168.07

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