

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

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

1.1 ANTIMICROBIAL RESISTANCE (AMR)

1.1.1 AMR surveillance, detection, and reporting

1.1.1a

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

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

Current Year Score: 0

Kazakhstan does have a National AMR Plan, though this has not been published, and is not publicly accessible.

Kazakhstan is not listed by the World Health Organization (WHO) Library of National Action Plans among the countries with existing plans. [1]

However, Kazakhstan's response to the WHO's 2018-2019 "AMR Self-Assessment Survey" was that a National AMR Action Plan was developed (Kazakhstan's response to the 2016-2017 Self-Assessment Survey was that a National AMR Action Plan was developed, and its response to the 2017-2018 Self-Assessment Survey was that a National AMR Action Plan was under development). [2, 3, 4]

According to Kazakhstan's response to the WHO's 2018-2019 Self-Assessment Survey, the country's National AMR Action Plan is multi-sectoral, working on issues including agreement on common objectives, and includes human health, animal health, food safety and environment (it does not include plant health and food production). [2] The country's National AMR Plan is not linked to any other existing action plans, strategies or targets related to HIV, Tuberculosis, Malaria or neglected tropical diseases. [2]

Kazakhstan did not provide a link to a published National AMR Plan in its response to the WHO's 2018-2019 Self-Assessment Survey. [2] Indeed, a search of Kazakhstan's e-Government Portal, which is linked to the Ministry of Health, Ministry of Agriculture, as well as all other state organs, revealed no links to a published National AMR Plan. [5] Indeed, there is no additional publicly-available evidence to suggest that Kazakhstan has in fact developed a National AMR Plan.

Additionally, there were no references on either the websites of the Ministry of Health or the Ministry of Agriculture to a National AMR Plan. [6, 7]

[1] World Health Organization (WHO). "Library of national action plans". [<https://www.who.int/antimicrobial-resistance/national-action-plans/library/en/>]. Accessed 1 August 2020.

[2] World Health Organization (WHO). 2018/2019. "Tripartite Antimicrobial Resistance Country Self-Assessment Survey Results 2018/19". [<https://amrcountryprogress.org/download/AMR-self-assessment-survey-country-responses-2018-19.xls>]. Accessed 1 August 2020.

[3] World Health Organization (WHO). 2016/2017. "Global Tripartite Database for Antimicrobial Resistance Country Self-Assessment". [<https://amrcountryprogress.org/download/AMR-self-assessment-survey-country-responses-2016-17.xlsx>]. Accessed 1 August 2020.

[4] World Health Organization (WHO). 2017/2018. "Global Tripartite Database for Antimicrobial Resistance Country Self-Assessment". [<https://amrcountryprogress.org/download/AMR-self-assessment-survey-country-responses-2016-17.xlsx>]. Accessed 1 August 2020.

[5] e.gov (Kazakhstan). [<https://egov.kz/cms/ru>]. Accessed 1 August 2020.

[6] Ministry of Healthcare of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/dsm?lang=ru>]. Accessed 20 August 2020.

[7] Ministry of Agriculture of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/moa?lang=ru>]. Accessed 20 August 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: 0

There is no publicly available evidence that there is a national laboratory or laboratory system in Kazakhstan which can test for all or some of the 7+1 priority AMR pathogens.

A Central Reference Laboratory (CRL) was established in Kazakhstan in 2016, and it is the only "Biological Security Level-3 Laboratory" in Central Asia. [1] The main functions of the CRL are to: integrate epizootic and epidemiological monitoring, lab indications of unknown infectious agents, and for the storage, deposit and support of the national collection of especially dangerous pathogens, as well as functioning as an international cooperation center for research and diagnostics of infectious diseases. [1]

In 2020, the previously-accessible website of the CRL is no longer functioning. [2]

Additionally, there is no evidence on the websites of the Ministry of Health, Ministry of Agriculture or National Center for Public Health, which suggests that the CRL tests for AMR or resistant strains of certain diseases. [3, 4, 5]

In 2014 Kazakhstan adopted a "National Plan to Fight Tuberculosis" for the period 2014-2020, which has an associated surveillance system, which in 2012 consisted of 315 microscopy laboratories. [6]

Kazakhstan is a member of the Central Asian and Eastern European Surveillance of Antimicrobial Resistance (CAESAR) network, a joint initiative of the World Health Organization (WHO) Regional Office for Europe, the Netherlands National Institute for Public Health and the Environment and the European Society of Clinical Microbiology and Infectious Diseases. [7] According to the 2019 CAESAR Annual Report, Kazakhstan is still in the process of appointing an entity to coordinate the AMR surveillance network and forming an AMR surveillance team. [7] Further steps such as setting up laboratories and surveillance have not been implemented. [7]

Additionally, the website of the Kazakh National Research Center for Highly Dangerous Infections has some information on the CRL, but it does not mention whether the CRL tests for priority AMR pathogens. [8]

None of the websites of the Ministry of Health, Ministry of Agriculture, National Center for Public Health, or National Research Center for Highly Dangerous Infections, mention the number of AMR pathogens that Kazakhstan can test for, and which of the 7+1 WHO priority pathogens Kazakhstan can test for. [3, 4, 5, 8]

- [1] Nunn-Lugar Cooperative Threat Reduction Program. 21 June 2016. "Kazakhstan's Central Reference Laboratory in Almaty". [<https://www.youtube.com/watch?v=bU-bB2VenAs>]. Accessed 1 August 2020.
- [2] Central Reference Laboratory. [www.crl.org.kz]. Accessed 1 August 2020.
- [3] Ministry of Healthcare of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/dsm?lang=en>]. Accessed 1 August 2020.
- [4] Ministry of Agriculture of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/moa?lang=en>]. Accessed 1 August 2020.
- [5] National Center for Public Health. [<https://hls.kz/>]. Accessed 1 August 2020.
- [6] Adilet (Legal Information System, Republic of Kazakhstan). 31 May 2014. "Decree of the Government of the Republic of Kazakhstan dated May 31, 2014 No. 597 On approval of the Comprehensive Plan to Combat Tuberculosis in the Republic of Kazakhstan for 2014-2020", ("Постановление Правительства Республики Казахстан от 31 мая 2014 года № 597 Об утверждении Комплексного плана по борьбе с туберкулезом в Республике Казахстан на 2014 - 2020 годы"). [<http://adilet.zan.kz/rus/docs/P1400000597>]. Accessed 1 August 2020.
- [7] World Health Organization (WHO). 2019. "Central Asian and European Surveillance of Antimicrobial Resistance: Annual Report 2019". [https://www.euro.who.int/__data/assets/pdf_file/0003/418863/53373-WHO-CAESAR-annual-report-2019.pdf]. Accessed 1 August 2020.
- [8] National Research Center for Highly Dangerous Infections. "CRL (ЦРЛ)". [<https://nncooi.kz/crl/>]. Accessed 9 August 2020.

1.1.1c

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

Yes = 1, No = 0

Current Year Score: 0

There is no evidence of Antimicrobial resistance (AMR) detection or surveillance activities conducted by the Kazakhstan government. In Kazakhstan, the Ministry of Ecology, Geology and Natural Resources is the state agency responsible for environmental matters. [1]

Under the auspices of the Ministry of Ecology, Geology and Natural Resources, the National Hydrometeorological Service ("Kazhydromet") is charged with environmental monitoring, however, there is no evidence to suggest that Kazhydromet carries out AMR detection or surveillance activities. [2]

Similarly, the Committee for Public Health Protection of the Ministry of Health, which is the central agency responsible for protecting public health in Kazakhstan, does not specifically refer to conducting surveillance for antimicrobial residues or AMR organisms. [3]

The Committee for Public Health Protection of the Ministry of Health refers generally to organization and conduct of measures for the sanitary protection of the territory of the republic from the introduction and spread of infectious and parasitic diseases but does not specifically refer to detection and surveillance activities for antimicrobial residues or AMR organisms. [3]

Kazakhstan is not listed by the World Health Organization (WHO) as a country with a National AMR Plan, and there is no evidence of the existence of such a plan on the Kazakh e-Government website, which collects data from various state organs in Kazakhstan. [4, 5]

Notably, Kazakhstan did not mention that a national plan for environmental detection or surveillance activities (e.g., in soil,

waterways) for antimicrobial residues or AMR organisms existed. [6]

[1] Government of Kazakhstan. 5 July 2019. “Decree on the Ministry of Ecology, Geology and Natural Resources of the Republic of Kazakhstan, of 5 July 2019, No. 479”, (“Положение о Министерстве экологии, геологии и природных ресурсов Республики Казахстан от 5 июля 2019 года № 479”).

[https://www.gov.kz/api/v1/public/assets/2019/10/20/b63ff759434926f5bedbb6be11043b22_original.109556.docx]. Accessed 2 August 2020.

[2] RSE Kazhydromet. “About the National Hydrometeorological Service of Kazakhstan (О национальной гидрометеорологической службе Казахстана)”. [<https://www.kazhydromet.kz/about/o-nacionalnoy-gidrometeorologicheskoy-sluzhbe-kazahstana>]. Accessed 2 August 2020.

[3] World Health Organization. 23 May 2019. “Mechanisms - Committee for Public Health under the Ministry of Health of the Republic of Kazakhstan (Комитет охраны общественного здоровья Министерства здравоохранения Республики Казахстан)”. [<https://extranet.who.int/nutrition/gina/en/node/36199>]. Accessed 2 August 2020.

[4] World Health Organization (WHO). “Library of national action plans”. [<https://www.who.int/antimicrobial-resistance/national-action-plans/library/en/>]. Accessed 2 August 2020.

[5] e.gov (Kazakhstan). [<https://egov.kz/cms/ru>]. Accessed 2 August 2020.

[6] World Health Organization (WHO). 2018/2019. “Tripartite Antimicrobial Resistance Country Self-Assessment Survey Results 2018/19”. [<https://amrcountryprogress.org/download/AMR-self-assessment-survey-country-responses-2018-19.xls>]. Accessed 2 August 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: 1

In Kazakhstan, there is national legislation in place, requiring prescriptions for antibiotic use for humans, though there is evidence of gaps in enforcement.

Prescription medicines in Kazakhstan are regulated by the 2015 Rules for Prescribing, Accounting and Storage of Prescriptions, as approved by order of the Minister of Health and Social Development. [1]

According to a 2019 press report by the Committee for Quality Control and Safety of Goods and Services of the Ministry of Health, Kazakhstan has enforced a prohibition on the sale of prescription drugs without a prescription since 2004. [2]

The current regulatory framework for the sale of prescription drugs is regulated by the 2020 Health Code, which requires prescriptions for 6,033 of the total 7,792 officially registered medicines (i.e. 77%). [3]

The list of prescription drugs includes antibiotics and hormonal drugs, medicinal products containing narcotic drugs and psychotropic substances, medicines for the treatment of cardiovascular diseases, amongst others. [3] Non-prescription medicines include vitamins, nasal sprays, syrups, amongst others. [3]

According to a 2019 report by local news website “zakon.kz”, many pharmacies in Kazakhstan still provide customers with antibiotic medications, without the presentation of a prescription, even though a prescription for such medications is required. [4] In response, the Ministry of Health, taking into account recommendations of the World Health Organization

(WHO), as well as the growth of the uncontrolled use of prescription medications and the consequences of this, has intensified its information and explanatory work with medical and pharmaceutical workers about the need to comply with the current requirements for the prescription and sale of drugs, with the population - about the risks of irresponsible self-medication. [4]

In 2019, the “Astana chooses health!” project was launched in Kazakhstan’s capital, which included meetings between specialists and doctors/pharmacists, at which the discussion of compliance with the current rules for the sale of prescription medications was discussed. [4] As part of the project’s drive for awareness-raising of the issue of AMR, information posters were published throughout the city's clinics and pharmacies. [4] Similar projects are being supported in other parts of the country. [4]

[1] Ministry of Health and Social Development of the Republic of Kazakhstan. 22 May 2015. “Order of the Minister of Health and Social Development of the Republic of Kazakhstan dated May 22, 2015 No. 373 On approval of the Rules for Prescribing, Accounting and Storage of Prescriptions (Приказ Министра здравоохранения и социального развития Республики Казахстан от 22 мая 2015 года № 373 Об утверждении Правил выписывания, учета и хранения рецептов)”. [https://online.zakon.kz/document/?doc_id=32582902]. Accessed 3 August 2020.

[2] Official Information Resource of the Prime-Minister of the Republic of Kazakhstan. 13 June 2019. “Writing prescriptions contributes to the rational use of drugs and the prevention of self-medication - L. Vyurabekova (Выписывание рецептов способствует рациональному применению лекарств и предотвращению самолечения — Л. Бюрабекова)”. [<https://primeminister.kz/ru/press/news/vipisivanie-retseptov-sposobstvuet-ratsionalnomu-primeneniu-lekarstv-i-predotvrashcheniu-samolecheniya-l-burabekova>]. Accessed 3 August 2020.

[3] Government of Kazakhstan. 7 July 2020. “Code of the Republic of Kazakhstan dated July 7, 2020 No. 360-VI “On people's health and the health care system” (Кодекс Республики Казахстан от 7 июля 2020 года № 360-VI «О здоровье народа и системе здравоохранения»)”. [https://online.zakon.kz/document/?doc_id=34464437]. Accessed 3 August 2020.

[4] zakon.kz. 21 May 2019. “The sale of prescription medicines was explained by the Ministry of Health (Продажу лекарств по рецепту разъяснили в Минздраве)”. [<https://www.zakon.kz/4970434-prodazhu-lekarstv-po-retseptu.html>]. Accessed 3 August 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: 1

In Kazakhstan, there is national legislation or regulation in place requiring prescriptions for antibiotic use for animals, however, there is evidence of gaps in enforcement.

The 2008 Veterinary Medicine Regulations do not specify the need to use prescriptions for antibiotics, but rather require prescriptions for any medicinal biological products for animals. [1]

Article 11(42) of the Regulations states that “Any use of a medicinal product, a biological preparation for animals, should be documented with indication of the name of the medicinal product for animals (written on the label), serial number, dose, route of administration; identification of the animal(s) that received the medicinal product; the reasons for prescribing the medicinal product, the biological preparation and the signature of the person(s) who appointed and applied the medicinal product, the biological preparation, as well as the period of pre-stop aging for farm animals and (or) the use of livestock products”. Documentary records of accepted and dispensed medicines, biological preparations for animals should be kept. [1]

No evidence of discussions about gaps in the implementation of prescriptions for use of antibiotics for animals was found. However, there are certain online shopping platforms in Kazakhstan, where it was possible to purchase antibiotics for animals online, including on Satu.kz, a Kazakh online marketplace, used by 18 thousand businesses. [2, 3]

[1] online.zakon.kz (Kazakhstan Legislation Library). 23 April 2008. "Decree of the Government of the Republic of Kazakhstan dated April 23, 2008 No. 380 On approval of the Technical Regulations "Requirements for the safety of medicines and biological products used in veterinary medicine" (Постановление Правительства Республики Казахстан от 23 апреля 2008 года № 380 Об утверждении Технического регламента «Требования к безопасности лекарственных средств и биологических препаратов, используемых в ветеринарии»)".

[https://online.zakon.kz/Document/?doc_id=30177816#pos=0;68]. Accessed 3 August 2020.

[2] Satu.kz. "Antibiotics for animals in Kazakhstan (Антибиотики для животных в Казахстане)". [<https://satu.kz/Antibiotiki-dlya-zhivotnyh.html>]. Accessed 3 August 2020.

[3] Satu.kz. "About us (О нас)". [https://satu.kz/about_us]. Accessed 20 August 2020.

1.2 ZOOBOTIC 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

Kazakhstan does have a plan that covers certain zoonotic diseases.

The Ministry of Agriculture has a Committee on Veterinary Control and Surveillance, which is charged with performing regulatory, implementation and control functions in the field of veterinary medicine and food safety subject to veterinary and sanitary control and supervision. [1]

The Committee covers preventative measures in relation to zoonotic diseases, which include for quarantine of imported livestock, with testing for various diseases including brucellosis, tuberculosis, paratuberculosis, enzootic leukaemia, trichomoniasis (*Trichomonas fetus*), campylobacteriosis (*Campylobacter fetus venerealis*) for bulls, chlamydiosis and leptospirosis; as well as a plan of vaccination of animals against 18 especially dangerous diseases, including: rabies, leptospirosis, anthrax, echinococcosis carnivorous, avian influenza, plague, tuberculosis; but they do not cover wider plans or strategies. [1, 2]

There is no further information of a plan or strategy on zoonoses on the Ministry of Health website or the non-functioning website of the Kazakh Scientific Center for Quarantine and Zoonotic Diseases. [3, 4]

[1] Ministry of Agriculture of the Republic of Kazakhstan. 31 July 2015. "Decree on the Committee for Veterinary Control and Supervision of the Ministry of Agriculture of the Republic of Kazakhstan dated July 31, 2015 No. 16-05 / 715 (Положение о Комитете ветеринарного контроля и надзора Министерства сельского хозяйства Республики Казахстан от 31 июля 2015 года № 16-05/715)".

[https://www.gov.kz/api/v1/public/assets/2019/7/1/fd2eb717954c21daa9ad688e085d9421_original.208048.pdf]. Accessed 3 August 2020.

[2] Ministry of Agriculture of the Republic of Kazakhstan. 29 June 2015. "Order of the Minister of Agriculture of the Republic of Kazakhstan dated May 23, 2019 No. 206 "On amendments and additions to the order of the Minister of Agriculture of the Republic of Kazakhstan dated June 29, 2015 No. 7-1 / 587" On approval of Veterinary (veterinary and sanitary) rules" (Приказ Министра сельского хозяйства Республики Казахстан от 23 мая 2019 года № 206 "О внесении изменений и дополнений в приказ Министра сельского хозяйства Республики Казахстан от 29 июня 2015 года № 7-1/587 "Об утверждении Ветеринарных (ветеринарно-санитарных) правил")".

[https://tengrinews.kz/zakon/pravitelstvo_respubliki_kazahstan_premier_ministr_rk/selskoe_hozyaystvo/id-V1900018716/]. Accessed 9 August 2020.

[3] Ministry of Health of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/dsm?lang=ru>]. Accessed 3 August 2020.

[4] Central Reference Laboratory. [www.crl.org.kz]. Accessed 3 August 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

No evidence could be found to suggest that Kazakhstan has national legislation, plans or equivalent strategy document(s) which includes measures for risk identification and reduction for zoonotic disease spillover events from animals to humans.

Indeed, a search of the Ministry of Health website, via the e-Government Portal, which connects all of Kazakhstan's governmental organs, revealed no evidence of the existence of a strategy to identify and reduce zoonotic disease spillover events from animals to humans. [1] The same is true of the Ministry of Agriculture. [2]

Additionally, no World Health Organization (WHO) Joint External Evaluation Reports, or Organization for Animal Health PVS Pathway Reports were available for Kazakhstan. [3, 4]

A 2012 study by the Kazakh Scientific Research Veterinary Institute noted that a strategy towards surveillance of zoonotic disease spillover events from animals to humans was necessary in Kazakhstan, due to the high risk that such spillover events pose, and due to the fact that Kazakhstan's unique and diverse climate increase the risk of such spillover events occurring. [5] No evidence was found to suggest that such a monitoring system was ever put in place.

[1] Ministry of Health of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/dsm?lang=ru>]. Accessed 3 August 2020.

[2] Ministry of Agriculture of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/moa?lang=ru>]. Accessed 3 August 2020.

[3] World Health Organization (WHO). "WHO European Region: JEE mission reports". [<https://www.who.int/ihr/procedures/mission-reports-europe/en/>]. Accessed 3 August 2020.

[4] World Organization for Animal Health (OIE). "PVS Pathway State of Play and Mission Reports". [<https://www.oie.int/solidarity/pvs-pathway-state-of-play-and-mission-reports/>]. Accessed 3 August 2020.

[5] M. Suleimenov, et al.. 2012. "Distribution of Zoonotic Parasitic Agents in Kazakhstan (Распространение Возбудителей Паразитарных Зоонозов в Казахстане)". [<https://cyberleninka.ru/article/n/rasprostranenie-vozbuditeley-parazitarnyh-zoonozov-v-kazahstane/pdf>]. Accessed 3 August 2020.

1.2.1c

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

Yes = 1, No = 0

Current Year Score: 1

There is evidence of national plans that account for the surveillance and control of multiple zoonotic pathogens of public health concern in Kazakhstan.

Under the Ministry of Agriculture, the Committee on Veterinary Control and Surveillance is charged with performing regulatory, implementation and control functions in the field of veterinary medicine and food safety subject to veterinary and sanitary control and supervision. [1]

The Committee on Veterinary Control and Surveillance website has numerous documents covering zoonotic diseases, as well as measures of surveillance, prevention and control. [2] These include a basic list of steps for quarantine of imported livestock with testing for brucellosis, tuberculosis, paratuberculosis, enzootic leukaemia, trichomoniasis (*Trichomonas fetus*), campylobacteriosis (*Campylobacter fetus venerealis*) for bulls, chlamydiosis and leptospirosis; as well as a plan of vaccination of animals against 18 especially dangerous diseases, including: rabies, leptospirosis, anthrax, echinococcosis carnivorous, avian influenza, plague, tuberculosis. [2, 3]

According to documents published on the Ministry of Agriculture’s website, surveillance is conducted through regular laboratory tests and diagnostic tests on farms in areas including bacteriology, virology, parasitology. [3] The Ministry of Agriculture also has reports detailing the incidence of several zoonotic diseases, including rabies, tuberculosis, anthrax and brucellosis, though these only cover the years 2015-2016. [3] The documents are not assigned to particular diseases but are rather dedicated to specific areas of surveillance and control, such as diagnostic data, vaccination data, and preventive measures. [3] It should be noted that this information is currently not available on the Ministry's website, which has undergone an update, but it is available in an archived version. [3] There is no further evidence of plans for the surveillance and control of zoonotic pathogens on the websites of the Ministry of Health or the non-functioning website of the Kazakh Scientific center of Quarantine and Zoonotic Diseases. [4, 5]

[1] Ministry of Agriculture of the Republic of Kazakhstan. 31 July 2015. “Decree on the Committee for Veterinary Control and Supervision of the Ministry of Agriculture of the Republic of Kazakhstan dated July 31, 2015 No. 16-05 / 715 (Положение о Комитете ветеринарного контроля и надзора Министерства сельского хозяйства Республики Казахстан от 31 июля 2015 года № 16-05/715)”.

[https://www.gov.kz/api/v1/public/assets/2019/7/1/fd2eb717954c21daa9ad688e085d9421_original.208048.pdf]. Accessed 3 August 2020.

[2] Committee on Veterinary Control and Surveillance of the Ministry of Agriculture. “Documents (Документы)”.

[<https://www.gov.kz/memleket/entities/vetcontrol/documents/3?lang=ru>]. Accessed 3 August 2020.

[3] Ministry of Agriculture of the Republic of Kazakhstan. 29 June 2015. “Order of the Minister of Agriculture of the Republic of Kazakhstan dated May 23, 2019 No. 206 "On amendments and additions to the order of the Minister of Agriculture of the Republic of Kazakhstan dated June 29, 2015 No. 7-1 / 587" On approval of Veterinary (veterinary and sanitary) rules" (Приказ Министра сельского хозяйства Республики Казахстан от 23 мая 2019 года № 206 "О внесении изменений и дополнений в приказ Министра сельского хозяйства Республики Казахстан от 29 июня 2015 года № 7-1/587 "Об утверждении Ветеринарных (ветеринарно-санитарных) правил"”.

[https://tengrinews.kz/zakon/pravitelstvo_respubliki_kazakhstan_premier_ministr_rk/selskoe_hozyaystvo/id-V1900018716/]. Accessed 9 August 2020.

[3] Ministry of Agriculture. 2018. "Veterinary safety". [<https://web.archive.org/web/20181003230052/http://mgov.kz/ru/odeyatel-nosti/veterinarnaya-bezopasnost/>]. Accessed 3 August 2020.

[4] Ministry of Health of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/dsm?lang=ru>]. Accessed 3 August 2020.

[5] Central Reference Laboratory. [www.crl.org.kz]. Accessed 3 August 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

In Kazakhstan, there is an agency dedicated to zoonotic diseases, but no publicly-accessible information is available as to how it functions across ministries.

The Kazakh Science center for Quarantine and Zoonotic Diseases (KSCQZD) was established in the 1940s by the Soviet Health Ministry. [1] During the 1960s it operated as the main anti-plague center for most of the Soviet republics of the Central Asia region until the collapse of the Soviet Union in 1991, when it was transferred and reorganized as the National Center for Kazakhstan, operating under the jurisdiction of the Ministry of Health. [1]

At present, KSCQZD is the consultative and methodological center of the anti-plague system of the Republic of Kazakhstan, operating in conjunction with 9 anti-plague stations of the Consumer Rights Protection Committee of the Ministry of National Economy of the Republic of Kazakhstan (there is no further detail on what these anti-plague stations are. [1]

There is no public evidence via the KSCQZD, the Ministry of Agriculture or the Ministry of Public Health that the KSCQZD functions across ministries. [2, 3]

[1] Nuclear Threat Initiative. 10 June 2014. "M. Aikimbayev Kazakh Scientific Center of Quarantine and Zoonotic Diseases (KSCQZD)". [<https://www.nti.org/learn/facilities/814/>]. Accessed 3 August 2020.

[2] Ministry of Agriculture of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/moa?lang=ru>]. Accessed 3 August 2020.

[3] Ministry of Health of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/dsm?lang=ru>]. Accessed 3 August 2020.

1.2.2 Surveillance systems for zoonotic diseases/pathogens

1.2.2a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence to suggest that a national mechanism for owners of livestock to conduct and report on disease surveillance to a central government agency exists in Kazakhstan.

The National Veterinary Reference Center is the Committee for Veterinary Control and Supervision under the Ministry of

Agriculture. Its main purpose is to conduct diagnostic studies and methodological work in the field of veterinary medicine in the Republic of Kazakhstan and it investigates agricultural and wild animals and birds. [1]

There are procedures for sample submission, though these can only be received from the representatives of state departments of veterinary services or other persons with power of attorney and there is no evidence of a mechanism for disease surveillance reporting. [2]

There is no further evidence on the websites of the Ministry of Agriculture or the Ministry of Health. [3, 4]

[1] Republican State Enterprise “National Veterinary Reference Center” Committee for Veterinary Control and Supervision of the Ministry of Agriculture of the Republic of Kazakhstan. 2018. “Laboratory”.

[http://www.nrcv.kz/en/structure_center/laboratorii.php]. Accessed 3 August 2020.

[2] Republican State Enterprise “National Veterinary Reference Center” Committee for Veterinary Control and Supervision of the Ministry of Agriculture of the Republic of Kazakhstan. “The procedure for samples admission and delivery of the results on a fee basis”. [<http://www.nrcv.kz/en/services/general-nrtsv-requirements-for-admission-of-test-sample-on-a-fee-basis.php>]. Accessed 3 August 2020.

[3] Ministry of Agriculture of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/moa?lang=ru>]. Accessed 3 August 2020.

[4] Ministry of Health of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/dsm?lang=ru>]. Accessed 3 August 2020.

1.2.2b

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

Yes = 1 , No = 0

Current Year Score: 0

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

Information provided on the website of the National Veterinary Reference Center with regard to submission of samples for testing states that identification of samples implies anonymity, which guarantees objectivity of the results, but does not go into further detail. [1]

The Law on Personal Data and its Protection covers data protection in general, but does not refer to particular sectors and how it may apply to disease surveillance. [2]

There is no further information on the websites of the Ministry of Agriculture or the Ministry of Health. [3, 4]

[1] Republican State Enterprise “National Veterinary Reference Center” Committee for Veterinary Control and Supervision of the Ministry of Agriculture of the Republic of Kazakhstan. “The department of samples receiving and epizootic monitoring”. [<http://www.nrcv.kz/en/services/the-department-of-samples-receiving-and-epizootic-monitoring.php>]. Accessed 3 August 2020.

[2] online.zakon.kz (Kazakhstan Legislation Library). 21 May 2013. “Law of the Republic of Kazakhstan dated May 21, 2013 No. 94-V “On personal data and their protection” (with amendments and additions as of 03.07.2020) (Закон Республики Казахстан от 21 мая 2013 года № 94-V «О персональных данных и их защите» (с изменениями и дополнениями по

состоянию на 03.07.2020 г.)”]. [https://online.zakon.kz/Document/?doc_id=31396226#pos=3;-253].

[3] Ministry of Agriculture of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/moa?lang=ru>]. Accessed 3 August 2020.

[4] Ministry of Health of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/dsm?lang=ru>]. Accessed 3 August 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

There is publicly available evidence that Kazakhstan conducts surveillance of zoonotic disease in wildlife.

Kazakhstan's national veterinary reference center, the Committee on Veterinary Control and Surveillance of the Ministry of Agriculture, is charged conducting diagnostic and methodological work in the field of veterinary medicine, as well as to conduct research into wild animals, bacteria, antigens, vaccines, nutrition of animal origin, animal feed, soil and water. [1]

Under its main purposes and activities, it is specifically stated that the center “conducts ongoing monitoring of epizootic diseases of wild animals”, but it also includes the monitoring of zoonotic diseases such as Brucella spp., Smallpox, Tuberculosis, and Rabies. [2, 3]

Additionally, the Ministry of Agriculture’s website notes that in 2020 it will carry out 150 million vaccinations on animals against 19 highly dangerous diseases, including foot and mouth disease, anthrax, rabies, pasteurellosis, tuberculosis, smallpox, avian influenza, plague, infectious rhinotracheitis, and viral diarrhea, as well as emkar, ecthyma, glanders, rhinopneumonia, lumpy dermatitis, echinococcosis of carnivores, leafy spirosis, Newcastle disease, anaerobic enterotoxemia in sheep and bradzot. [4]

[1] Ministry of Agriculture of the Republic of Kazakhstan. 31 July 2015. “Decree on the Committee for Veterinary Control and Supervision of the Ministry of Agriculture of the Republic of Kazakhstan dated July 31, 2015 No. 16-05 / 715 (Положение о Комитете ветеринарного контроля и надзора Министерства сельского хозяйства Республики Казахстан от 31 июля 2015 года № 16-05/715)”.

[https://www.gov.kz/api/v1/public/assets/2019/7/1/fd2eb717954c21daa9ad688e085d9421_original.208048.pdf]. Accessed 3 August 2020.

[2] Republican State Enterprise “National Veterinary Reference Center” Committee for Veterinary Control and Supervision of the Ministry of Agriculture of the Republic of Kazakhstan. 2018. “Laboratory”.

[http://www.nrcv.kz/en/structure_center/laboratorii.php]. Accessed 3 August 2020.

[3] Republican State Enterprise “National Veterinary Reference Center” Committee for Veterinary Control and Supervision of the Ministry of Agriculture of the Republic of Kazakhstan. “Research Methods (Методы Исследований)”.

[<http://www.nrcv.kz/metody-issledovaniy.php>]. Accessed 3 August 2020.

[4] Ministry of Agriculture. 6 April 2020. “150 million vaccines will be carried out on animals in 2020 – Ministry of Agriculture (150 млн прививок сделают животным в 2020 году – Минсельхоз)”.

[<https://www.gov.kz/memleket/entities/vetcontrol/press/news/details/150-mln-privivok-sdelayut-zhivotnym-v-2020-godu-minselhoz?lang=ru>]. Accessed 9 August 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: 223.26

2019

OIE WAHIS database

1.2.4b

Number of veterinary para-professionals per 100,000 people

Input number

Current Year Score: 82.67

2019

OIE WAHIS database

1.2.5 Private sector and zoonotic

1.2.5a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly-available evidence to suggest that Kazakhstan has mechanisms for working with the private sector in controlling or responding to zoonoses.

In Kazakhstan, the Committee of Veterinary Control and Surveillance of the Ministry of Agriculture is responsible for protecting the population from diseases common to animals and humans. [1] Additionally, The Committee for Public Health

Protection of the Ministry of Health is responsible for safeguarding the health of the general population. [2]

Both the Committee of Veterinary Control and the Committee for Public Health are explicitly prohibited from entering into contractual relationships with the private sector for the completion of activities that fall within the remit of the committees' responsibilities, under their respective establishing decrees. [1, 2]

The Kazakh Scientific Centre for Quarantine and Zoonotic Diseases does collaborate with other institutions internationally for research, but not in disease control and response. [3]

Additionally, neither the websites of the Ministry of Health, or Ministry of Agriculture, mention mechanisms for working with the private sector in controlling or responding to zoonoses. [4, 5]

[1] Committee of Veterinary Control and Surveillance of the Ministry of Agriculture of the Republic of Kazakhstan. 31 July 2015. "Decree on the Committee for Veterinary Control and Supervision of the Ministry of Agriculture of the Republic of Kazakhstan dated July 31, 2015 No. 16-05 / 715 (Положение о Комитете ветеринарного контроля и надзора Министерства сельского хозяйства Республики Казахстан от 31 июля 2015 года № 16-05/715)". [https://www.gov.kz/api/v1/public/assets/2019/7/1/fd2eb717954c21daa9ad688e085d9421_original.208048.pdf]. Accessed 4 August 2020.

[2] Ministry of Health of the Republic of Kazakhstan. 6 March 2017. "Decree on the Committee of Public Health Security of the Ministry of Health of the Republic of Kazakhstan dated 6 March, 2017 No. 56 (Положение о Комитете общественного здоровья Министерства здравоохранения Республики Казахстан от 6 марта 2017 года № 56)". [http://www.rcrz.kz/100/p59-2.pdf]. Accessed 4 August 2020.

[3] Kazakh Science center for Quarantine and Zoonotic Diseases. "International co-operation (Международное сотрудничество)". [https://nncooi.kz/mezhdunarodnoe-sotrudnichestvo/]. Accessed 20 August 2020.

[4] Ministry of Healthcare of the Republic of Kazakhstan. [https://www.gov.kz/memleket/entities/dsm?lang=ru]. Accessed 20 August 2020.

[5] Ministry of Agriculture of the Republic of Kazakhstan. [https://www.gov.kz/memleket/entities/moa?lang=ru]. Accessed 20 August 2020.

1.3 BIOSECURITY

1.3.1 Whole-of- government biosecurity systems

1.3.1a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence that Kazakhstan has in place a 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.

The Central Reference Laboratory (CRL) of the Kazakh Scientific Center of Quarantine and Zoonotic Diseases (KSCQZD) stores a range especially dangerous pathogens, and was formally opened in Almaty on 9 September 2016, (the first of its kind in

Central Asia), but no evidence was found to suggest that other facilities where especially dangerous pathogens are stored operate in Kazakhstan. [1, 2]

The website of the KSCQZD, which includes information on the CRL, does not hold any information on the existence of a record of the facilities in which especially dangerous pathogens and toxins are stored or processed. [3]

Similarly, none of the websites of the Ministry of Health, the Ministry of Agriculture, the Ministry of Defence, the National Center of Expertise (which focuses on improving expertise in sanitary and epidemiological fields, overseeing research, and ensuring effective anti-epidemic and preventive measures), the Ministry of Education and Science, the Committee for Public Health Security, the National Center for Public Health hold information on the existence of a record of the facilities in which especially dangerous pathogens and toxins are stored or processed. [4, 5, 6, 7, 8, 9, 10]

Although Kazakhstan submits Confidence Building Measures almost every year, with the most recent submission having been made in 2020, access to the reports is restricted to the public, and it is unknown if they contain information on the existence of a record of the facilities in which especially dangerous pathogens and toxins are stored or processed. [11]

Additionally, the VERTIC Database did not hold any information on Kazakhstan maintaining a record of the facilities in which especially dangerous pathogens and toxins are stored or processed. [12]

[1] Nuclear Threat Initiative. 10 June 2014. "M. Aikimbayev Kazakh Scientific Center of Quarantine and Zoonotic Diseases (KSCQZD)". [<https://www.nti.org/learn/facilities/814/>]. Accessed 3 August 2020.

[2] informburo.kz. 29 June 2018. "How the Almaty laboratory, which was accused of spreading meningitis, works (Как работает алматинская лаборатория, которую обвиняли в распространении менингита)". [<https://informburo.kz/stati/kak-rabotaet-almatinskaya-laboratoriya-profinansirovannaya-ssha-kotoruyu-obvinyali-v-rasprostranении-meningita.html>]. Accessed 4 August 2020.

[3] Kazakh Scientific Center of Quarantine and Zoonotic Diseases. "CRL (ЦРЛ)". [<https://nncooi.kz/crl>]. Accessed 20 August 2020.

[4] Ministry of Health of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/dsm?lang=ru>]. Accessed 4 August 2020.

[5] Ministry of Agriculture of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/moa?lang=ru>]. Accessed 4 August 2020.

[6] Ministry of Defence of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/mod?lang=ru>]. Accessed 4 August 2020.

[7] National Center of Expertise. [<https://www.nce.kz/>] Accessed 4 August 2020.

[8] Ministry of Education and Science. [<https://www.gov.kz/memleket/entities/edu?lang=ru>]. Accessed 4 August 2020.

[9] Ministry of Health. "Public Health Security Documents".

[<https://www.gov.kz/memleket/entities/dsm/documents/1?directions=280&lang=ru>]. Accessed 4 August 2020.

[10] National Center for Public Health. [<https://hls.kz/>]. Accessed 4 August 2020.

[11] The United Nations Office at Geneva. 2019. "Available Confidence Building Measures Reports: Kazakhstan".

[<https://bwc-ecbm.unog.ch/state/Kazakhstan>]. Accessed 4 August 2020.

[12] VERTIC. "Kazakhstan". [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/k/>]. Accessed 20 August 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

There is no public evidence that the country has 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.

In 2020, one of Kazakhstan’s primary news outlets, “Khabar”, published an article on Kazakhstan’s development of a new Biosecurity Law. [1] The article reported that the President of Kazakhstan instructed analysis of the feasibility of implementing a criminal liability framework for the improper performance of professional duties by doctors and to develop a law on biological security by the end of the year. [1] Within the updated framework, which is already under development, the sanitary and epidemiological service will be strengthened, with the creation of a new committee. [1]

Currently, the 2012 Law on National Security lists the authorized body in the field of public health (the Ministry of Health) as the central executive body ensuring public health protection, protection against the spread of especially dangerous and quarantine infectious diseases, but it does not refer to biosecurity specifically. [2]

The website of the Kazakh Scientific Center of Quarantine and Zoonotic Diseases, which hosts information about Kazakhstan’s Central Reference Laboratory, does not hold any information on regulations related to biosecurity. [3]

Similarly, none of the websites of the Ministry of Health (including the Committee for Public Health Protection), Ministry of Agriculture, Ministry of Defence, the National Center of Expertise (which focuses on improving expertise in the sanitary and epidemiological fields, overseeing research, and ensuring effective anti-epidemic and preventive measures), the National Center for Public Health and the VERTIC (Biological Weapons Convention legislation database) hold any information on biosecurity regulations in Kazakhstan. [4, 5, 6, 7, 8, 9]

Although Kazakhstan submits Confidence Building Measures almost every year, with the most recent submission having been made in 2020, access to the reports is restricted to the public, and it is unknown if they contain information on the existence of biosecurity regulations. [10]

[1] Khabar 24. 27 May 2020. “Biological safety law to be developed in Kazakhstan (Закон о биологической безопасности разработают в Казахстане)”. [<https://24.kz/ru/news/policy/item/398680-zakon-o-biologicheskoy-bezopasnosti-razrabotayut-v-kazakhstane>]. Accessed 4 August 2020.

[2] Government of Kazakhstan. 6 January 2012. “Law of the Republic of Kazakhstan dated January 6, 2012 No. 527-IV "On the National Security of the Republic of Kazakhstan" (with amendments and additions as of 07.07.2020) (Закон Республики Казахстан от 6 января 2012 года № 527-IV «О национальной безопасности Республики Казахстан» (с изменениями и дополнениями по состоянию на 07.07.2020 г.)”. [https://online.zakon.kz/Document/?doc_id=31106860#pos=3;-106]. Accessed 4 August 2020.

[3] Kazakh Scientific Center of Quarantine and Zoonotic Diseases. “CRL (ЦРЛ)”. [<https://nncooi.kz/crl>]. Accessed 20 August 2020.

[4] Ministry of Health of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/dsm?lang=ru>]. Accessed 4 August 2020.

[5] Ministry of Agriculture of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/moa?lang=ru>]. Accessed 4 August 2020.

[6] Ministry of Defence of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/mod?lang=ru>]. Accessed 4 August 2020.

[7] National Center of Expertise. [<https://www.nce.kz/>] Accessed 4 August 2020.

[8] National Center for Public Health. [<https://hls.kz/>]. Accessed 4 August 2020.

[9] VERTIC. “Biological Weapons Convention Legislation Database (Kazakhstan)”.

[<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/k/>]. Accessed 4 August 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

In Kazakhstan, there are currently no biosecurity legislation and regulations, and no central agency responsible for the enforcement of biosecurity legislation and regulations. However, there is evidence to suggest that such legislation will be developed by the end of 2020, with a new organ established for its enforcement.

Currently, the 2012 Law on National Security lists the Ministry of Health as the central executive body charged with ensuring public health protection, protection against the spread of especially dangerous and quarantine infectious diseases, however, it does not refer to biosecurity specifically. [1]

The website of the Central Reference Laboratory of the Kazakh Scientific Center of Quarantine and Zoonotic Diseases did not hold any information on regulations related to biosecurity. [2]

Similarly, none of the websites of the Ministry of Health (including the Committee for Public Health Protection), Ministry of Agriculture, Ministry of Defence, the National Center of Expertise (which focuses on improving expertise in the sanitary and epidemiological fields, overseeing research, and ensuring effective anti-epidemic and preventive measures), the National Center for Public Health and the Verification Research, Training and Information Center (Biological Weapons Convention legislation database) hold any information on biosecurity regulations in Kazakhstan. [3, 4, 5, 6, 7, 8]

In 2020, one of Kazakhstan’s primary news outlets, “Khabar”, published an article on Kazakhstan’s development of a new Biosecurity Law. [9] The article reported that the President of Kazakhstan instructed analysis of the feasibility of implementing a criminal liability framework for the improper performance of professional duties by doctors and to develop a law on biological security by the end of the year. [9] Within the updated framework, which is already under development, the sanitary and epidemiological service will be strengthened, with the creation of a new committee. [9]

Although Kazakhstan submits Confidence Building Measures almost every year, with the most recent submission having been made in 2019, access to the reports is restricted to the public, and it is unknown if they contain information on the existence of biosecurity regulations. [10]

[1] Government of Kazakhstan. 6 January 2012. “Law of the Republic of Kazakhstan dated January 6, 2012 No. 527-IV “On the National Security of the Republic of Kazakhstan” (with amendments and additions as of 07.07.2020) (Закон Республики Казахстан от 6 января 2012 года № 527-IV «О национальной безопасности Республики Казахстан» (с изменениями и дополнениями по состоянию на 07.07.2020 г.)). [https://online.zakon.kz/Document/?doc_id=31106860#pos=3;-106].

Accessed 4 August 2020.

[2] Kazakh Scientific Center of Quarantine and Zoonotic Diseases. “CRL (ЦРЛ)”. [<https://nncooi.kz/crl>]. Accessed 20 August 2020.

[3] Ministry of Health of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/dsm?lang=ru>]. Accessed 4 August 2020.

[4] Ministry of Agriculture of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/moa?lang=ru>]. Accessed 4 August 2020.

[5] Ministry of Defence of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/mod?lang=ru>]. Accessed 4 August 2020.

[6] National Center of Expertise. [<https://www.nce.kz/>]. Accessed 4 August 2020.

[7] National Center for Public Health. [<https://hls.kz/>]. Accessed 4 August 2020.

[8] Verification Research, Training and Information Center. “Biological Weapons Convention Legislation Database (Kazakhstan)”. [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/k/>]. Accessed 4 August 2020.

[9] Khabar 24. 27 May 2020. “Biological safety law to be developed in Kazakhstan (Закон о биологической безопасности разработают в Казахстане)”. [<https://24.kz/ru/news/policy/item/398680-zakon-o-biologicheskoy-bezopasnosti-razrabotayut-v-kazakhstane>]. Accessed 4 August 2020.

[10] The United Nations Office at Geneva. 2019. “Available Confidence Building Measures Reports: Kazakhstan”. [<https://bwc-ecbm.unog.ch/state/Kazakhstan>]. Accessed 4 August 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

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

The Central Reference Laboratory (CRL) of the Kazakh Scientific Center of Quarantine and Zoonotic Diseases (KSCQZD) is the main laboratory that stores especially dangerous pathogens in Kazakhstan (the first of its kind in Central Asia), and was opened in 2016. [1] The project was primarily intended for the safe storage of biomaterials, however, there is no mention of whether this involved consolidation of especially dangerous pathogens and toxins into a minimum number of facilities. [1]

The website of the CRL of the KSCQZD does not include any information on whether Kazakhstan has actively taken action to consolidate its inventories of especially dangerous pathogens and toxins into a minimum number of facilities. [2]

Similarly, none of the websites of the Ministry of Health (including the Committee for Public Health Security), Ministry of Agriculture, Ministry of Defence, National Center of Expertise (which focuses on improving expertise in the sanitary and epidemiological fields, overseeing research, and ensuring effective anti-epidemic and preventive measures), Ministry of Education and Science, National Center for Public Health hold information on Kazakhstan actively taking action to consolidate its inventories of especially dangerous pathogens and toxins into a minimum number of facilities. [3, 4, 5, 6, 7, 8]

Although Kazakhstan submits Confidence Building Measures almost every year, with the most recent submission having been made in 2020, access to the reports is restricted to the public, and it is unknown if they contain information on Kazakhstan actively taking action to consolidate its inventories of especially dangerous pathogens and toxins into a minimum number of

facilities. [9]

Additionally, the Verification Research, Training and Information Centre (VERTIC) Database does not hold any information on whether Kazakhstan has taken action to consolidate its inventories of especially dangerous pathogens and toxins into a minimum number of facilities. [10]

[1] Nuclear Threat Initiative. 10 June 2014. “M. Aikimbayev Kazakh Scientific Center of Quarantine and Zoonotic Diseases (KSCQZD)”. [<https://www.nti.org/learn/facilities/814/>]. Accessed 4 August 2020.

[2] Kazakh Scientific Center of Quarantine and Zoonotic Diseases. “CRL (ЦРЛ)”. [<https://nncooi.kz/crl>]. Accessed 20 August 2020.

[3] Ministry of Health of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/dsm?lang=ru>]. Accessed 4 August 2020.

[4] Ministry of Agriculture of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/moa?lang=ru>]. Accessed 4 August 2020.

[5] Ministry of Defence of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/mod?lang=ru>]. Accessed 4 August 2020.

[6] National Center of Expertise. [<https://www.nce.kz/>] Accessed 4 August 2020.

[7] Ministry of Education and Science. [<https://www.gov.kz/memleket/entities/edu?lang=ru>]. Accessed 4 August 2020.

[8] National Center for Public Health. [<https://hls.kz/>]. Accessed 4 August 2020.

[9] The United Nations Office at Geneva. 2019. “Available Confidence Building Measures Reports: Kazakhstan”. [<https://bwc-ecbm.unog.ch/state/Kazakhstan>]. Accessed 4 August 2020.

[10] Verification Research, Training and Information Centre (VERTIC). “Kazakhstan”. [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/k/>]. Accessed 20 August 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 of in-country capacity to conduct Polymerase Chain Reaction (PCR)-based diagnostic testing for Ebola.

The Republican Center for Health Development (RCHD) under the Ministry of Health, which is concerned with healthcare development and modernisation policy, has published a protocol for diagnosis and treatment of Ebola, which specifically refers to PCR-based diagnostic testing. [1, 2]

The RCHD is an arm of the Ministry of Health, which was created in 2011 through the merger of two organizations (Republican Information and Analytical center, which was responsible for the analytical support of reforms in the health care system, and the Institute for Health Development, which provided scientific and methodological support for the implementation of the State Program for the Reform and Development of Healthcare of the Republic of Kazakhstan for 2005-2010). [3] The RCHD oversees research and development in the health care system, and has been involved in carrying out several key health care reforms in Kazakhstan. [3]

Indeed, the only reference to the use of PCR-based diagnostic testing in Kazakhstan has been related to testing for the SARS-

CoV-2 virus, in response to the global COVID-19 pandemic. [4, 5]

Neither the websites of the Ministry of Health (including the Committee for Public Health Security), nor the National Center for Public Health mention the use of PCR-based diagnostic testing for either anthrax or Ebola. [6, 7]

Additionally, the website of the Central Reference Laboratory of the Kazakh Scientific Center of Quarantine and Zoonotic Diseases, did not include information on the use of PCR-based diagnostic testing for either anthrax or Ebola. [8]

There is no information about anthrax testing on the websites of the Ministry of Health (including the Committee for Public Health Security), Ministry of Agriculture, Ministry of Defence, National Center of Expertise (which focuses on improving expertise in the sanitary and epidemiological fields, overseeing research, and ensuring effective anti-epidemic and preventive measures), Ministry of Education and Science, and National Center for Public Health. [6, 9, 10, 11, 12, 7]

[1] Republican Center for Health Development. "About us". [<http://rcrz.kz/index.php/en/about-us/about-us2>]. Accessed 4 August 2020.

[2] Republican Center for Health Development. 12 December 2014. "Clinical Protocol for Diagnosis and Treatment: Illness Caused by the Ebola Virus (Клинический Протокол Диагностики и Лечения Болезнь, Вызванная Вирусом Эбола)". [http://www.rcrz.kz/docs/clinic_protocol/2014/%D0%A2%D0%B5%D1%80%D0%B0%D0%BF%D0%B8%D1%8F/%D0%98%D0%BD%D1%84%D0%B5%D0%BA%D1%86%D0%B8%D0%BE%D0%BD%D0%BD%D1%8B%D0%B5%20%D0%B1%D0%BE%D0%BB%D0%B5%D0%B7%D0%BD%D0%B8/%D0%9B%D0%B8%D1%85%D0%BE%D1%80%D0%B0%D0%B4%D0%BA%D0%B0%20%D0%AD%D0%B1%D0%BE%D0%BB%D0%B0.pdf]. Accessed 4 August 2020.

[3] Republic Center for Health Development. "History of the RCHD (История создания РЦРЗ)". [<http://rcrz.kz/index.php/ru/2017-03-12-15-41-03/istoriya-tsentra>]. Accessed 4 August 2020.

[4] NAUKA.KZ. 9 April 2020. "Coronavirus: Kazakhstan will make more than 6 thousand tests by May – Exclusive interview (Коронавирус: более 6 тысяч тестов произведет Казахстан к маю – эксклюзивное интервью)". [https://nauka.kz/page.php?page_id=16&lang=1&news_id=8740]. Accessed 4 August 2020.

[5] ZONA.KZ. 20 June 2020. "What is the operating mode of laboratories for the diagnosis of COVID-19 in Almaty and will new ones be opened? (В каком режиме работают лаборатории по диагностике COVID-19 в Алматы и откроются ли новые?)". [<https://zonakz.net/2020/06/20/v-kakom-rezhime-rabotayut-laboratorii-po-diagnostie-covid-19-v-almaty-i-otkroyutsya-li-novye/>]. Accessed 4 August 2020.

[6] Ministry of Health of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/dsm?lang=ru>]. Accessed 4 August 2020.

[7] National Center for Public Health. [<https://hls.kz/>]. Accessed 4 August 2020.

[8] Kazakh Scientific Center of Quarantine and Zoonotic Diseases. "CRL (ЦРЛ)". [<https://nncooi.kz/crl>]. Accessed 20 August 2020.

[9] Ministry of Agriculture of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/moa?lang=ru>]. Accessed 4 August 2020.

[10] Ministry of Defence of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/mod?lang=ru>]. Accessed 4 August 2020.

[11] National Center of Expertise. [<https://www.nce.kz/>] Accessed 4 August 2020.

[12] Ministry of Education and Science. [<https://www.gov.kz/memleket/entities/edu?lang=ru>]. Accessed 4 August 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: 0

In Kazakhstan, there is no evidence of a standardized national training programme for biosecurity.

According to a 2018 article from a local media source, "Bnews", Kazakhstan had taken "significant steps" towards the development of a standardized biosecurity training programme, with plans for the CRL (which contains joint laboratories which are used by the Ministry of Health, Ministry of Agriculture and Ministry of Education and Science) to become a national, regional and international center for biosafety and biosecurity training. [1] However, no further information about this was found on the website of the CRL. [2]

There have been several collaborative projects to provide biosecurity training in Kazakhstan and in the wider region. From 2013-2014 the European Union (EU) funded the International Science and Technology Center (ISTC) Project K-2048 "Biosafety and Biosecurity Training for Personnel of Mobile Medical Units Working in Field Conditions", and this project was successfully completed with participation from the Kazakh-Russian Medical University and KSCQZD. [3]

Additionally, the ongoing "Project 53", which is a multilateral project to strengthen the national legal framework and provide specialised training on biosafety and biosecurity in Central Asian countries, also involving the ISTC, which is led by Sustainable Criminal Justice Solutions (SCJS) and also involves Public Health England (PHE), VERTIC, and the Rijksinstituut voor Volksgezondheid en Milieu (RIVM), who, according to the SCJS website, will "provide expert legislative and biosafety/biosecurity support to the ISTC during implementation of Project 53". [4,5]

According to its website, the KSCQZD runs courses on biological safety and biological protection on a contractual basis. [6] There is no further information on standardized biosecurity training in Kazakhstan on the pages of the Verification Research, Training and Information Centre, either. [7]

Although Kazakhstan submits Confidence Building Measures almost every year, with the last submission in 2020, access to the reports is restricted to the public, and it is unknown if they contain information on standardized national training programmes for biosecurity in Kazakhstan. [8]

[1] Bnews. 4 May 2018. "A laboratory for training biosafety and biosecurity specialists will appear in Kazakhstan (В Казахстане появится лаборатория по обучению специалистов биобезопасности и биозащите)". [https://bnews.kz/ru/analysis/reviews/_kazhstane_poyavitsya_laboratoriya_po_obucheniю_spetsialistov_biobezopasnosti_i_biozashchite]. Accessed 4 August 2020.

[2] Kazakh Scientific Center of Quarantine and Zoonotic Diseases. "CRL (ЦПЛ)". [<https://nncooi.kz/crl>]. Accessed 20 August 2020.

[2] International Science and Technology Center. 4 October 2014. "EU funded ISTC Project supports Biosafety and Biosecurity Training for Personnel of Mobile Medical Units Working in Field Conditions in Kazakhstan". [<http://www.istc.int/en/article/7398>]. Accessed 4 August 2020.

[3] Sustainable Criminal Justice Solutions. 27 September 2016. "Project 53 - bio-safety and bio-security in Central Asian countries". [<http://www.scjs.eu/2016/09/27/project-53-bio-safety-and-bio-security-in-central-asian-countries/>]. Accessed 4

August 2020.

[4] EU CBRN COE Project 53 Strengthening the National Legal Framework and Provision of Specialized Training on Bio-Safety and Bio-Security in Central Asian Countries. “Project 53”. [<http://coe-project53.istc.int/en/page/project53>]. Accessed 4 August 2020.

[5] Kazakh Scientific Center of Quarantine and Zoonotic Diseases. “International training center (Международный тренинговый центр)”. [<https://nncooi.kz/treningovyy-centr/>]. Accessed 20 August 2020.

[6] Verification Research, Training and Information Center. “Biological Weapons Convention Legislation Database (Kazakhstan)”. [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/k/>]. Accessed 4 August 2020.

[7] The United Nations Office at Geneva. 2019. “Available Confidence Building Measures Reports: Kazakhstan”. [<https://bwc-ecbm.unog.ch/state/Kazakhstan>]. Accessed 4 August 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

There is no publicly-accessible information to suggest people who work in facilities with sensitive biological materials in Kazakhstan are subject to checks, though security personnel guarding such facilities are subject to criminal background and psychological tests.

Objects of state organizations and institutions for the development, production, testing, research and storage of particularly dangerous bacteriological, biological, chemical, narcotic drugs and precursors are classified as strategically important and therefore guarded by the State Security Service. [1] There are several conditions for entering the State Security Service, including absence of previous convictions, and the requirement to take a psychophysiological or medical examination (which could include drug testing). [2]

The website of the Central Reference Laboratory (CRL) of the Kazakh Science Center for Quarantine and Zoonotic Diseases (KSCQZD), which opened in 2016 and is the first of its kind in the region for especially dangerous pathogens, does not refer to checks for personnel. [3, 4]

There is no evidence on the websites of the Ministry of Health (including the Committee for Public Health Security), the Ministry of Agriculture, the Ministry of Defence, the National Center of Expertise (which focuses on improving expertise in sanitary and epidemiological fields, overseeing research, and ensuring effective anti-epidemic and preventive measures), the National Center for Public Health and the Verification Research, Training and Information Centre (VERTIC) databases referring to checks for personnel. [5, 6, 7, 8, 9, 10]

Although Kazakhstan submits Confidence Building Measures almost every year, with the last submission in 2020, access to the reports is restricted to the public, and it is unknown if they contain information on checks for personnel. [11]

- [1] Government of Kazakhstan. 19 October 2000. “Some issues of objects subject to state protection (Некоторые вопросы объектов, подлежащих государственной охране)”. [<http://adilet.zan.kz/rus/docs/P1100001151>]. Accessed 4 August 2020.
- [2] State Security Service. “Information for applicants (Информация Для Кандидатов)”. [<https://www.sgork.gov.kz/ru/personnel-policy/information-for-candidates/>]. Accessed 4 August 2020.
- [3] Nuclear Threat Initiative. 10 June 2014. “M. Aikimbayev Kazakh Scientific Center of Quarantine and Zoonotic Diseases (KSCQZD)”. [<https://www.nti.org/learn/facilities/814/>]. Accessed 4 August 2020.
- [4] Kazakh Scientific Center of Quarantine and Zoonotic Diseases. “CRL (ЦРЛ)”. [<https://nncooi.kz/crl>]. Accessed 20 August 2020.
- [5] Ministry of Health of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/dsm?lang=ru>]. Accessed 4 August 2020.
- [6] Ministry of Agriculture of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/moa?lang=ru>]. Accessed 4 August 2020.
- [7] Ministry of Defence of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/mod?lang=ru>]. Accessed 4 August 2020.
- [8] National Center of Expertise. [<https://www.nce.kz/>]. Accessed 4 August 2020.
- [9] National Center for Public Health. [<https://hls.kz/>]. Accessed 4 August 2020.
- [10] Verification Research, Training and Information Centre (VERTIC). “Biological Weapons Convention Legislation Database (Kazakhstan)”. [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/k/>]. Accessed 4 August 2020.
- [11] The United Nations Office at Geneva. 2019. “Available Confidence Building Measures Reports: Kazakhstan”. [<https://bwc-ecbm.unog.ch/state/Kazakhstan>]. Accessed 4 August 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

Kazakhstan does not have publicly-available national regulations on the safe and secure transport of infectious substances (Categories A and B).

Although Kazakhstan is a contracting party to the European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR), there is no evidence to suggest that this is domestically enforced. [1]

The Minister for Investment and Development’s 2015 Order on “Rules for the transport of dangerous goods by road and the list of dangerous goods for transportation by vehicles on the territory of the Republic of Kazakhstan” lists infectious substances dangerous for animals and people among those covered by the regulation, and explicitly sets out the conditions in which these should be transported, and include conditions such as mandatory training for drivers, prohibition on the use of fire near transport dangerous substances, and prohibition on abrupt braking, etc. [2]

Additionally, the Minister for Investment and Development’s 2015 Order on “Regulations for the Transport of Dangerous Goods” sets out more specific requirements in relation to the transport of poisonous and infectious substances - including the requirement for prior approval of the government agency in the field of sanitary and epidemiological welfare. It covers requirements for containers, storage and subsequent cleaning of the vehicle, though it does not specifically describe the

mode of transport (except in relation to poisonous substances, which are covered by the same provisions as infectious substances). It also does not specifically refer to categories A and B. [3]

National standards for classification of dangerous goods class poisonous and infectious substances under class 6, which sets out how dangerous goods are to be transported within the Euro-Asian Council for Standardization, Metrology and Certification. [4]

Transport of microorganisms is also covered by Chapter 9 of the of the Sanitary-epidemiological requirements for laboratories using potentially hazardous chemical and biological substances. [5]

There is no further information on the websites of the Ministry of Health, Ministry of Agriculture or Ministry of Defence (there is no separate Ministry of Transport, with its functions being incorporated into the Ministry for Investment and Development). [6, 7, 8, 9]

Although Kazakhstan submits Confidence Building Measures almost every year, with the last submission in 2019, access to the reports is restricted to the public, and it is unknown if they contain information on the transportation of dangerous goods. [10]

Additionally, the Verification Research, Training and Information Centre (VERTIC) does not hold any information on Kazakh regulations on the safe and secure transport of infectious substances (Categories A and B). [11]

[1] United Nations Economic Commission for Europe. 2017. "ADR European Agreement Concerning the International Carriage of Dangerous Goods by Road".

[https://www.unece.org/fileadmin/DAM/trans/danger/publi/adr/adr2017/ADR2017e_web.pdf]. Accessed 6 August 2020.

[2] Minister for Investment and Development. 29 July 2015. "Order 460 of 29 July 2015 "On approval of the Rules for the transport of dangerous goods by road and the list of dangerous goods for transportation by vehicles on the territory of the Republic of Kazakhstan" (Об утверждении Правил перевозки опасных грузов автомобильным транспортом и перечня опасных грузов, допускаемых к перевозке автотранспортными средствами на территории Республики Казахстан от 17 апреля 2015 года № 460)".

[https://tengrinews.kz/zakon/pravitelstvo_respubliki_kazahstan_premier_ministr_rk/tpanspopt/id-V1500011779/]. Accessed 6 August 2020.

[3] Minister for Investment and Development. 11 August 2015. "Order 548 of 11 August 2015 "On the Approval of the Regulations for the Transport of Dangerous Goods" (Приказ Министра по инвестициям и развитию Республики Казахстан от 30 апреля 2015 года № 548. Зарегистрирован в Министерстве юстиции Республики Казахстан 11 августа 2015 года № 11857)". [https://tengrinews.kz/zakon/pravitelstvo_respubliki_kazahstan_premier_ministr_rk/tpanspopt/id-V1500011857/]. Accessed 6 August 2020.

[4] Euro-Asian Council for Standardization, Metrology and Certification (EASC). 18 April 2013. "Dangerous Cargos: Classification (Грузы Опасные: Классификация)". [<https://meganorm.ru/Data2/1/4293732/4293732361.pdf>]. Accessed 6 August 2020.

[5] Order of the Minister of Health of the Republic of Kazakhstan from 8 September 2017 No. 684 "On approval of Sanitary Rules "Sanitary-epidemiological requirements for laboratories using potentially hazardous chemical and biological substances" (Приказ Министра здравоохранения Республики Казахстан от 8 сентября 2017 года № 684 Об утверждении Санитарных правил "Санитарно-эпидемиологические требования к лабораториям, использующим потенциально опасные химические и биологические вещества)". [<https://zakon.uchet.kz/rus/docs/V1700015990#5>]. Accessed 6 August 2020.

[6] Ministry of Health of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/dsm?lang=ru>]. Accessed 6 August 2020.

[7] Ministry of Agriculture of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/moa?lang=ru>]. Accessed 6 August 2020.

[8] Ministry of Defence of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/mod?lang=ru>]. Accessed 6 August 2020.

[9] Ministry for Investment and Development. 29 December 2018. “Questions on the Ministry of Industry and Development of the Republic of Kazakhstan (О некоторых вопросах Министерства индустрии и инфраструктурного развития Республики Казахстан)”. Accessed 6 August 2020.

[10] The United Nations Office at Geneva. 2019. “Available Confidence Building Measures Reports: Kazakhstan”. [<https://bwc-ecbm.unog.ch/state/Kazakhstan>]. Accessed 4 August 2020.

[11] Verification Research, Training and Information Centre (VERTIC). “Biological Weapons Convention Legislation Database (Kazakhstan)”. [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/k/>]. Accessed 21 August 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: 1

In Kazakhstan, there is national legislation and regulation to oversee the cross-border transfer and end-user screening of especially dangerous pathogens, toxins and pathogens with pandemic potential.

The 2007 Law on Export Control covers pathogens, their genetically modified forms and fragments of genetic material that can be used to create bacteriological (biological) and toxin weapons, lists of which are established by international export control regimes. Exports and imports are subject to licencing and end-user warranty liability, which is a written assurance from the importer (end-user) about the use of products for the stated purposes, not to transfer them to other persons and prevent their re-export to third countries without the permission of the authorized body. [1]

Although Kazakhstan submits Confidence Building Measures almost every year, with the last submission in 2019, access to the reports is restricted to the public, and it is unknown if they contain information on the cross-border transfer and end-user screening of especially dangerous pathogens, toxins, and pathogens with pandemic potential. [2]

[1] Kazakhstanskaya Pravda. 8 August 2007. “Law of the Republic of Kazakhstan of 21 July 2007 No. 300-III “On Export Control”. [http://www.vertic.org/media/National%20Legislation/Kazakhstan/KZ_Law_on_Export_Control.pdf]. Accessed 6 August 2020.

[2] The United Nations Office at Geneva. 2019. “Available Confidence Building Measures Reports: Kazakhstan”. [<https://bwc-ecbm.unog.ch/state/Kazakhstan>]. Accessed 4 August 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

Kazakhstan does have a Ministerial Order in place for biosafety.

Chapter 4 of the 2017 Sanitary-epidemiological requirements for laboratories using potentially hazardous chemical and biological substances sets out the requirements for working in microbiological laboratories. They include clothing requirements, disinfection procedures, and other safety requirements, such as the storage of toxic, explosive substances and solutions in workplaces and racks. [1]

Although Kazakhstan submits Confidence Building Measures almost every year, with the last submission in 2019, access to the reports is restricted to the public, and it is unknown if they contain information on biosafety regulations. [2]

[1] Учет Законодательство. 8 September 2017. "Order of the Minister of Health of the Republic of Kazakhstan from 8 September 2017 No. 684 "On approval of Sanitary Rules "Sanitary-epidemiological requirements for laboratories using potentially hazardous chemical and biological substances" (Приказ Министра здравоохранения Республики Казахстан от 8 сентября 2017 года № 684 Об утверждении Санитарных правил "Санитарно-эпидемиологические требования к лабораториям, использующим потенциально опасные химические и биологические вещества)".

[<https://zakon.uchet.kz/rus/docs/V1700015990#5>].

[2] The United Nations Office at Geneva. 2019. "Available Confidence Building Measures Reports: Kazakhstan". [<https://bwc-ecbm.unog.ch/state/Kazakhstan>]. Accessed 4 August 2020.

1.4.1b

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

Yes = 1 , No = 0

Current Year Score: 1

In Kazakhstan, there is an established agency responsible for the enforcement of biosafety legislation and regulations.

The Department of Biological and Sanitary Safety at the Scientific Research Institute of Problems of Biosafety (which started out as part of the Soviet Ministry of Agriculture and is currently under the Kazakh Ministry of Education and Science) has among its responsibilities: prevention of infection of laboratory workers and their relatives with pathogens of laboratory infections, pollution of the environment and promoting its protection, and ensuring compliance with the provisions of all applicable national, international and local regulatory documents governing the procedures for dealing with hazardous biomaterials. [1, 2]

Although Kazakhstan submits Confidence Building Measures almost every year, with the last submission in 2019, access to the reports is restricted to the public, and it is unknown if they contain information on biosafety regulations. [3]

[1] Scientific Research Institute of Problems of Biosafety. "History (История)". [<https://www.biosafety.kz/%d0%be-%d0%bd%d0%b0%d1%81/%d0%b8%d1%81%d1%82%d0%be%d1%80%d0%b8%d1%8f/>]. Accessed 6 August 2020.

[2] Scientific Research Institute of Problems of Biosafety. "Department of Biological and Sanitary Security (Отдел биологической и санитарной безопасности)".

[[https://www.biosafety.kz/%d1%81%d1%82%d1%80%d1%83%d0%ba%d1%82%d1%83%d1%80%d0%b0-%d0%bd%d0%b8%d0%b8%d0%bf%d0%b1%d0%b1/%d0%be%d1%82%d0%b4%d0%b5%d0%bb-%d0%b1%d0%b8%d0%be%d0%bb%d0%be%d0%b3%d0%b8%d1%87%d0%b5%d1%81%d0%ba%d0%be%d0%b9-%d0%b8-%d0%b1](https://www.biosafety.kz/%d1%81%d1%82%d1%80%d1%83%d0%ba%d1%82%d1%83%d1%80%d0%b0-%d0%bd%d0%b8%d0%b8%d0%bf%d0%b1%d0%b1/%d0%be%d1%82%d0%b4%d0%b5%d0%bb-%d0%b1%d0%b8%d0%be%d0%bb%d0%be%d0%b3%d0%b8%d1%87%d0%b5%d1%81%d0%ba%d0%be%d0%b9-%d0%b8-%d0%b1%d0%b8%d0%be%d0%bb%d0%be%d0%b3%d0%b8%d1%87%d0%b5%d1%81%d0%ba%d0%be%d0%b9-%d0%b8-%d0%b1%d0%b8%d0%be%d0%bb%d0%be%d0%b3%d0%b8%d1%87%d0%b5%d1%81%d0%ba%d0%be%d0%b9-%d0%b8-%d0%b1)]

[3] The United Nations Office at Geneva. 2019. "Available Confidence Building Measures Reports: Kazakhstan". [<https://bwc-ecbm.unog.ch/state/Kazakhstan>]. Accessed 4 August 2020.

%d1%81%d0%b0%d0%bd%d0%b8%d1%82%d0%b0%d1%80%d0%bd%d0%be%d0%b9-%d0%b1%d0%b5%d0%b7/]. Accessed 6 August 2020.

[3] The United Nations Office at Geneva. 2019. "Available Confidence Building Measures Reports: Kazakhstan". [<https://bwc-ecbm.unog.ch/state/Kazakhstan>]. Accessed 4 August 2020.

1.4.2 Biosafety training and practices

1.4.2a

Does the country require biosafety training, using a standardized, required approach, such as through a common curriculum or a 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

Kazakhstan does require biosafety training, using a standardized, required approach for personnel working in facilities housing or working with especially dangerous pathogens, toxins, or biological materials with pandemic potential.

Under Article 136 of the 2015 Order of the Ministry of National Economy of the Republic of Kazakhstan on sanitary-epidemiological requirements for laboratories using potentially hazardous chemical and biological substances, employees working with especially dangerous pathogens, etc., are required to undergo specialized training, followed by periodic refresher courses for certification of knowledge of sanitary and epidemiological requirements (at least once every 2 years). [1]

According to the website of the International Science and Technology Center (ISTC), the Kazakh Scientific Center for Quarantine and Zoonotic Diseases Regional Training Center of Biosafety and Biosecurity is the only center authorised to conduct post-diploma training of specialists who work with especially dangerous infections. [2] Specialist training and refresher courses are available for doctors and biologists, as well as more generalised professional development for doctors, biologists and lab workers. [3]

Kazakhstan is also involved in Project 53, a European Union initiative for train-the-trainer courses in biosafety and biosecurity in several Asian countries. [4]

Although Kazakhstan submits Confidence Building Measures almost every year, with the last submission in 2019, access to the reports is restricted to the public, and it is unknown if they contain information on biosafety training. [5]

[1] Order of the Minister of Health of the Republic of Kazakhstan from 8 September 2017 No. 684 "On approval of Sanitary Rules "Sanitary-epidemiological requirements for laboratories using potentially hazardous chemical and biological substances" (Приказ Министра здравоохранения Республики Казахстан от 8 сентября 2017 года № 684 Об утверждении Санитарных правил "Санитарно-эпидемиологические требования к лабораториям, использующим потенциально опасные химические и биологические вещества)". [<https://zakon.uchet.kz/rus/docs/V1700015990#5>]. Accessed 6 August 2020.

[2] International Science and Technology Center. 5 August 2016. "Distance learning of Biosafety and Biosecurity". [<http://www.istc.int/en/project/FB84F5B185F9A65A462580090012AF89>]. Accessed 6 August 2020.

[3] Kazakh Scientific Center for Quarantine and Zoonotic Diseases. "International training center (Международный тренинговый центр)". [<http://kscqzd.kz/?node=4475-gal-2>]. Accessed 21 August 2018.

[4] CBRN centers of Excellence. "First Project 53 Biosafety & Biosecurity: Train the Trainer Course delivered in Kazakhstan".

[<http://coe-project53.istc.int/activity/first-project-53-biosafety-biosecurity-train-the-trainer-course-delivered-in-kazakhstan>]. Accessed 6 August 2020.

[5] The United Nations Office at Geneva. 2019. "Available Confidence Building Measures Reports: Kazakhstan". [<https://bwc-ecbm.unog.ch/state/Kazakhstan>]. Accessed 6 August 2020.

1.5 DUAL-USE RESEARCH AND CULTURE OF RESPONSIBLE SCIENCE

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

1.5.1a

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

Yes = 1, No = 0

Current Year Score: 0

There is no publicly-available evidence to suggest that Kazakhstan 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.

There is no evidence of such an assessment on the websites of the Ministry of Health (including the Committee for Public Health Security), the Ministry of Agriculture, or the Ministry of Defence. [1, 2, 3]

The Kazakh Scientific Center of Quarantine and Zoonotic Diseases, part of the Ministry of Health, researches especially dangerous diseases, but according to its website, there is no evidence of an assessment of its activities in this regard, nor is there evidence on the page dedicated to the new Central Reference Laboratory in Almaty, which researches and tests for dangerous pathogens and diseases (the websites of both these organizations are not currently accessible). [4, 5]

Additionally, there is no evidence to suggest that such an assessment has been carried out on the websites of the National Center of Expertise (which focuses on improving expertise in sanitary and epidemiological fields, overseeing research, and ensuring effective anti-epidemic and preventive measures), the Ministry of Education and Science, and the National Center for Public Health. [6, 7, 8]

Although Kazakhstan submits Confidence Building Measures almost every year, with the last submission in 2019, access to the reports is restricted to the public, and it is unknown if they contain information on whether assessments to determine whether ongoing research is occurring on especially dangerous pathogens, toxins, pathogens with pandemic potential, and/or other dual use research have been carried out. [9]

Additionally, the Verification Research, Training and Information Centre (VERTIC) Database holds no information on whether Kazakhstan 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. [10]

[1] Ministry of Health of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/dsm?lang=ru>]. Accessed 4 August 2020.

[2] Ministry of Agriculture of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/moa?lang=ru>]. Accessed 4 August 2020.

- [3] Ministry of Defence of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/mod?lang=ru>]. Accessed 4 August 2020.
- [4] Kazakh Scientific Center for Quarantine and Zoonotic Diseases. [<https://nncooi.kz/>]. Accessed 21 August 2020.
- [5] Kazakh Scientific Center for Quarantine and Zoonotic Diseases. “CRL (ЦРЛ)”. [<https://nncooi.kz/crl/>]. Accessed 21 August 2020.
- [6] National Center of Expertise. [<https://www.nce.kz/>] Accessed 6 August 2020.
- [7] Ministry of Education and Science. [<https://www.gov.kz/memleket/entities/edu?lang=ru>]. Accessed 4 August 2020.
- [8] National Center for Public Health. [<https://hls.kz/>]. Accessed 4 August 2020.
- [9] The United Nations Office at Geneva. 2019. “Available Confidence Building Measures Reports: Kazakhstan”. [<https://bwc-ecbm.unog.ch/state/Kazakhstan>]. Accessed 6 August 2020.
- [10] Verification Research, Training and Information Centre (VERTIC). “Biological Weapons Convention Legislation Database (Kazakhstan)”. [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/k/>]. Accessed 21 August 2020.

1.5.1b

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

Yes = 1 , No = 0

Current Year Score: 0

In Kazakhstan, there is no publicly-available national policy requiring oversight of dual use research, such as research with especially dangerous pathogens, toxins, and/or pathogens with pandemic potential.

There is no evidence of such policies on the websites of the Ministry of Health (including the Committee for Public Health Security), the Ministry of Agriculture, the Ministry of Defence, the National Center of Expertise (which focuses on improving expertise in sanitary and epidemiological fields, overseeing research, and ensuring effective anti-epidemic and preventive measures), the Ministry of Education and Science, the National Center for Public Health, the Kazakh Scientific Center of Quarantine and Zoonotic Diseases (part of the Ministry of Health) or the new Central Reference Laboratory in Almaty, which researches and tests especially dangerous diseases and pathogens (whose websites are not currently accessible). [1, 2, 3, 4, 5, 6, 7, 8]

Although Kazakhstan submits Confidence Building Measures almost every year, with the last submission in 2019, access to the reports is restricted to the public, and it is unknown if they contain information on oversight of dual use research. [9]

Additionally, the Verification Research, Training and Information Centre (VERTIC) Database holds no information on national policy requiring oversight of dual use research, such as research with especially dangerous pathogens, toxins, and/or pathogens with pandemic potential in Kazakhstan. [10]

- [1] Ministry of Health of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/dsm?lang=ru>]. Accessed 4 August 2020.
- [2] Ministry of Agriculture of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/moa?lang=ru>]. Accessed 4 August 2020.
- [3] Ministry of Defence of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/mod?lang=ru>]. Accessed 4 August 2020.
- [4] National Center of Expertise. [<https://www.nce.kz/>] Accessed 6 August 2020.
- [5] Ministry of Education and Science. [<https://www.gov.kz/memleket/entities/edu?lang=ru>]. Accessed 4 August 2020.

- [6] National Center for Public Health. [<https://hls.kz/>]. Accessed 4 August 2020.
- [7] Kazakh Science Center for Quarantine and Zoonotic Diseases. [<https://nncooi.kz/>]. Accessed 21 August 2020.
- [8] Kazakh Science center for Quarantine and Zoonotic Diseases. “Central Reference Laboratory (ЦРЛ)”. [<https://nncooi.kz/crl/>]. Accessed 21 August 2020.
- [9] The United Nations Office at Geneva. 2019. “Available Confidence Building Measures Reports: Kazakhstan”. [<https://bwc-ecbm.unog.ch/state/Kazakhstan>]. Accessed 6 August 2020.
- [10] Verification Research, Training and Information Centre (VERTIC). “Biological Weapons Convention Legislation Database (Kazakhstan)”. [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/k/>]. Accessed 21 August 2020.

1.5.1c

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

Yes = 1, No = 0

Current Year Score: 0

In Kazakhstan, there is no evidence of an agency responsible for oversight of research with especially dangerous pathogens, pathogens with pandemic potential, and/or other dual use research.

There is no mention of such an agency on the websites of the Ministry of Health (including the Committee for Public Health Security), the Ministry of Agriculture, the Ministry of Defence, the National Center of Expertise (which focuses on improving expertise in sanitary and epidemiological fields, overseeing research, and ensuring effective anti-epidemic and preventive measures), the Ministry of Education and Science, the National Center for Public Health, the Kazakh Scientific Center of Quarantine and Zoonotic Diseases (part of the Ministry of Health) or the new Central Reference Laboratory in Almaty, which researches and tests especially dangerous diseases and pathogens. [1, 2, 3, 4, 5, 6, 7, 8]

Although Kazakhstan submits Confidence Building Measures almost every year, with the last submission in 2019, access to the reports is restricted to the public, and it is unknown if they contain information on oversight of research with especially dangerous pathogens. [9]

Additionally, the Verification Research, Training and Information Centre (VERTIC) Database holds no information on whether Kazakhstan has an agency responsible for oversight of research with especially dangerous pathogens, pathogens with pandemic potential, and/or other dual use research. [10]

- [1] Ministry of Health of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/dsm?lang=ru>]. Accessed 4 August 2020.
- [2] Ministry of Agriculture of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/moa?lang=ru>]. Accessed 4 August 2020.
- [3] Ministry of Defence of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/mod?lang=ru>]. Accessed 4 August 2020.
- [4] National Center of Expertise. [<https://www.nce.kz/>] Accessed 6 August 2020.
- [5] Ministry of Education and Science. [<https://www.gov.kz/memleket/entities/edu?lang=ru>]. Accessed 4 August 2020.
- [6] National Center for Public Health. [<https://hls.kz/>]. Accessed 4 August 2020.
- [7] Kazakh Science Center for Quarantine and Zoonotic Diseases. [<https://nncooi.kz/>]. Accessed 21 August 2020.
- [8] Kazakh Science center for Quarantine and Zoonotic Diseases. “Central Reference Laboratory (ЦРЛ)”. [<https://nncooi.kz/crl/>]. Accessed 21 August 2020.

[9] The United Nations Office at Geneva. 2019. "Available Confidence Building Measures Reports: Kazakhstan". [<https://bwc-ecbm.unog.ch/state/Kazakhstan>]. Accessed 6 August 2020.

[10] Verification Research, Training and Information Centre (VERTIC). "Biological Weapons Convention Legislation Database (Kazakhstan)". [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/k/>]. Accessed 21 August 2020.

1.5.2 Screening guidance for providers of genetic material

1.5.2a

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

Yes = 1, No = 0

Current Year Score: 0

In Kazakhstan, there is no evidence of a regulation requiring the screening of synthesized DNA before it is sold.

The main piece of legislation regulating this field is the 2008 Government Decree "Rules for the circulation of genetically modified objects", which states that turnover of genetically modified objects (defined as processes and stages of sale or supply, including the import of genetically modified objects, as well as the associated packaging, labelling, storage and transportation processes) is only permitted after their safety has been scientifically confirmed. [1]

Whilst the Decree stipulates that the product's safety must be checked by experts, it does not state that, prior to its sale, synthesised DNA must pass through a code reader. [1]

Furthermore, the Decree does not define GMOs as inclusive of viruses or viroids. [1]

In addition to this, commentaries on the legal framework suggest that it still has shortcomings. [2, 3]

A bill to regulate genetic engineering activity was dropped in 2016. [4]

There is no evidence of such a regulation on the websites of the Ministry of Health (including the Committee for Public Health Security), Ministry of Agriculture, Ministry of Defence, Ministry of Education and Science, the National Center of Expertise (which focuses on improving expertise in sanitary and epidemiological fields, overseeing research, and ensuring effective anti-epidemic and preventive measures), the National Center for Public Health, and of the Central Reference Laboratory (CRL) (which researches and tests especially dangerous diseases and pathogens). [5, 6, 7, 8, 9, 10, 11, X]

Although Kazakhstan submits Confidence Building Measures almost every year, with the last submission in 2019, access to the reports is restricted to the public, and it is unknown if they contain information on the screening of synthesized DNA before it is sold. [12]

Additionally, the Verification Research, Training and Information Centre (VERTIC) Database holds no information on Kazakhstan requiring the screening of synthesized DNA before it is sold. [14]

[1] Government of the Republic of Kazakhstan. June 27 2008. Decree No. 630 of the Government of the Republic of Kazakhstan of June 27, 2008 "On the approval of the Rules for the circulation of genetically modified objects" (Постановление Правительства Республики Казахстан от 27 июня 2008 года N 630 Об утверждении Правил оборота

генетически модифицированных объектов)”.

[https://tengrinews.kz/zakon/pravitelstvo_respubliki_kazakhstan_premier_ministr_rk/topgovlya_i_obschestvennoe_pitanie/id-P080000630_/#z4]. Accessed 6 August 2020.

[2] articlekz.com, Akshataeva Zh., et al. 2015. “Some legal problems of regulating the turnover of genetically modified organisms in the Republic of Kazakhstan (Некоторые правовые проблемы регулирования оборота генномодифицированных организмов в Республике Казахстан)”. [https://articlekz.com/article/14774]. Accessed 6 August 2020.

[3] Zhanuzakova, L.T. 2016. “Legal regulation of the circulation of genetically modified food products in the Republic of Kazakhstan (Правовое регулирование оборота генетически модифицированной пищевой продукции в республике казахстан)”. [https://elibrary.ru/item.asp?id=27326327]. Accessed 6 August 2020.

[4] Government of the Republic of Kazakhstan. 30 September 2010. “Resolution of the Government of the Republic of Kazakhstan 1012 of September 30 2010 On the Draft Law of the Republic of Kazakhstan On State Regulation of Genetic Engineering Activities (Постановление Правительства Республики Казахстан от 30 сентября 2010 года № 1012 О проекте Закона Республики Казахстан "О государственном регулировании генно-инженерной деятельности")”.

[https://tengrinews.kz/zakon/pravitelstvo_respubliki_kazakhstan_premier_ministr_rk/zdravooхранenie/id-P100001012_]. Accessed 6 August 2020.

[5] Ministry of Health of the Republic of Kazakhstan. [https://www.gov.kz/memleket/entities/dsm?lang=ru]. Accessed 4 August 2020.

[6] Ministry of Agriculture of the Republic of Kazakhstan. [https://www.gov.kz/memleket/entities/moa?lang=ru]. Accessed 4 August 2020.

[7] Ministry of Defence of the Republic of Kazakhstan. [https://www.gov.kz/memleket/entities/mod?lang=ru]. Accessed 4 August 2020.

[8] National Center of Expertise. [https://www.nce.kz/] Accessed 6 August 2020.

[9] Ministry of Education and Science. [https://www.gov.kz/memleket/entities/edu?lang=ru]. Accessed 4 August 2020.

[10] National Center for Public Health. [https://hls.kz/]. Accessed 4 August 2020.

[11] Kazakh Science Center for Quarantine and Zoonotic Diseases. [https://nncooi.kz/]. Accessed 21 August 2020. [X] Kazakh Science center for Quarantine and Zoonotic Diseases. “Central Reference Laboratory (ЦРЛ)”. [https://nncooi.kz/crl/]. Accessed 21 August 2020.

[12] The United Nations Office at Geneva. 2019. “Available Confidence Building Measures Reports: Kazakhstan”.

[https://bwc-ecbm.unog.ch/state/Kazakhstan]. Accessed 6 August 2020.

[14] Verification Research, Training and Information Centre (VERTIC). “Biological Weapons Convention Legislation Database (Kazakhstan)”. [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/k/]. Accessed 21 August 2020.

1.6 IMMUNIZATION

1.6.1 Vaccination rates

1.6.1a

Immunization rate (measles/MCV2)

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

Current Year Score: 2

2019

World Health Organization

1.6.1b

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

Yes = 1, No = 0

Current Year Score: 1

2020

OIE WAHIS database

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

2.1 LABORATORY SYSTEMS STRENGTH AND QUALITY

2.1.1 Laboratory testing for detection of priority diseases

2.1.1a

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

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

Current Year Score: 0

Evidence was found to suggest that Kazakhstan's national laboratory system has the capacity to test for only one of the 10 WHO-defined core tests.

The Kazakh Republican AIDS Centre's reference laboratory in Almaty tests for HIV using serology testing methods. [1, 2]

There is evidence of testing facilities in Kazakhstan for the other relevant diseases, but no clear information on what type of tests are conducted. For example, the National Reference Laboratory for Control of Viral Infections, part of the Research-Practical Centre of Sanitary-Epidemiological Expertise and Monitoring of the National Centre of Public Health of the Ministry of Health (which also includes the Kazakh Science Centre for Quarantine and Zoonotic Diseases) is listed in a directory of national influenza centres by the World Health Organisation (WHO), but its website does not elaborate on testing methods used. [3, 4]

Kazakhstan also has a WHO-accredited Polio laboratory and Tuberculosis laboratory. [5, 6]

There is a national Measles and Rubella reference laboratory of Kazakhstan at the Scientific and Practical Centre for Sanitary Epidemiological Expertise and Monitoring located in Almaty, however, neither of these institutions provide information on

testing methods. [7]

There is no further information on the websites of the Ministry of Health (including the Committee for Public Health Security) or the National Centre of Public Health. [8, 9] It is also not clear from these websites which are Kazakhstan's four country-specific tests.

[1] B. Zhussupov, et al. 2015. "Migrant Workers in Kazakhstan: Gender Differences in HIV Knowledge and Sexual Risk Behaviors: AIDS and Behavior 19

[7] : 1298–1304". [<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4503855/>]. Accessed 7 August 2020.

[2] Kazakh Research Center for Dermatology and Infectious Diseases. "Republican Center for the Prevention and Control of AIDS (Республиканский центр по профилактике и борьбе со СПИД)". [<http://www.kncdiz.kz/ru/kntsudz/istoriya/center/>]. Accessed 7 August 2020.

[3] World Health Organization (WHO). 28 July 2020. "National Influenza Centres".

[http://www.who.int/influenza/gisrs_laboratory/national_influenza_centres/list/en/index3.html]. Accessed 7 August 2020.

[4] Research-Practical Centre of Sanitary-Epidemiological Expertise and Monitoring. "Laboratory Services (Лабораторные Услуги)". [<http://rk-ncph.kz/ru/uslugi/laboratornye-uslugi>] Accessed 7 August 2020.

[5] World Health Organization (WHO). January 2011. "Report on the 24th Meeting of the European Regional Certification Commission for Poliomyelitis Eradication (Отчет 24-го Совещания Европейской региональной комиссии по сертификации ликвидации полиомиелита)". [http://www.euro.who.int/__data/assets/pdf_file/0019/147313/e95119R.pdf]. Accessed 7 August 2020.

[6] World Health Organisation. 9 July 2012. "Review of the national tuberculosis program in Kazakhstan (Обзор национальной программы по туберкулезу в Казахстане).

[<http://www.euro.who.int/ru/countries/kazakhstan/news/news/2012/07/review-of-the-national-tuberculosis-programme-in-kazakhstan>]. Accessed 7 August 2020.

[7] World Health Organisation. 13 December 2011. "Kazakhstan national measles and rubella reference laboratory assessed by WHO expert". [<http://www.euro.who.int/en/countries/kazakhstan/news/news/2011/12/kazakhstan-national-measles-and-rubella-reference-laboratory-assessed-by-who-expert>]. Accessed 7 August 2020.

[8] Ministry of Health of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/dsm?lang=ru>]. Accessed 7 August 2020.

[9] National Center for Public Health. [<https://hls.kz/>]. Accessed 7 August 2020.

2.1.1b

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

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

Current Year Score: 1

There is evidence that Kazakhstan has a plan in place to coordinate testing at the national level in Kazakhstan during a public health emergency.

The law "On Public Health and the Healthcare System," last updated in July 2020, states that individuals may be subjected to mandatory testing during public health emergencies. However, this law does not include details on how this testing should be rolled out or scaled. [1]

A decree of the Chief Sanitary Doctor of Kazakhstan in July 2020 mandates that all healthcare facilities and ambulances must be equipped with the materials needed to conduct express COVID-19 testing. This is the responsibility of the Ministry of Healthcare as well as local healthcare authorities. This decree also provides extensive documentation on how express testing is to be conducted. However, there is no evidence that this plan incorporates goals for testing or testing for novel pathogens beyond Covid-19. [2] No further evidence could be found on the websites of the Ministry of Health, the Ministry of Agriculture, or the National Center for Public Health. [3, 4, 5]

[1] Government of Kazakhstan. July 2020. "On Public Health and the Healthcare System" ("О здоровье народа и системе здравоохранения"). [https://online.zakon.kz/document/?doc_id=34464437]. Accessed 8 August 2020.

[2] Chief Sanitary Doctor of the Republic of Kazakhstan. 27 July 2020. "On the further strengthening of measures to prevent the spread of the coronavirus disease in the population of the Republic of Kazakhstan" ("О дальнейшем усилении мер по предупреждению заболеваний коронавирусной инфекцией среди населения Республики Казахстан").

[http://online.zakon.kz/Document/?doc_id=37566604]. Accessed 8 August 2020.

[3] Ministry of Agriculture of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/moa>]. Accessed 8 August 2020.

[4] National Center for Public Health. [<https://hls.kz/>]. Accessed 5 August 2020.

[5] Ministry of Health of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/dsm?lang=ru>]. Accessed 7 August 2020.

2.1.2 Laboratory quality systems

2.1.2a

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

Yes = 1, No = 0

Current Year Score: 0

There is no evidence to suggest that Kazakhstan's reference laboratories are accredited.

The Republican AIDS Center's reference laboratory in Almaty is the reference laboratory for HIV and uses serology testing methods. [1] The Center's website contains no information on accreditation. [2]

There is evidence of reference facilities in Kazakhstan for the other relevant diseases, but no clear information on what type of tests are conducted. For example, the National Reference Laboratory for Control of Viral Infections, part of the Research-Practical Centre of Sanitary-Epidemiological Expertise and Monitoring of the National Centre of Public Health of the Ministry of Health (which also includes the Kazakh Science Centre for Quarantine and Zoonotic Diseases) is listed in a directory of national influenza centres by the World Health Organisation (WHO), but its website does not elaborate on testing methodology. [3, 4]

The country has a WHO accredited polio laboratory, and TB laboratory, however, is no information detailing the testing methods used. [5, 6] These reference laboratories do not have dedicated websites and there is no information available to suggest that they are accredited.

There is no further information on the websites of the Ministry of Health or the National Centre of Public Health Care. [7, 8] It is also not clear from these websites if Kazakhstan has designated four country-specific tests.

- [1] B. Zhussupov, et al. 2015. "Migrant Workers in Kazakhstan: Gender Differences in HIV Knowledge and Sexual Risk Behaviors: AIDS and Behavior 19 [7] : 1298–1304". [<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4503855/>]. Accessed 7 August 2020.
- [2] Kazakh Research Center for Dermatology and Infectious Diseases. "Republican Center for the Prevention and Control of AIDS (Республиканский центр по профилактике и борьбе со СПИД)". [<http://www.kncdz.kz/ru/kntsdiz/istoriya/center/>]. Accessed 7 August 2020.
- [3] World Health Organization (WHO). 28 July 2020. "National Influenza Centres". [https://www.who.int/influenza/gisrs_laboratory/national_influenza_centres/en/]. Accessed 7 August 2020.
- [4] Research-Practical Centre of Sanitary-Epidemiological Expertise and Monitoring. "Laboratory Services (Лабораторные Услуги)". [<https://bit.ly/3v6RLGi>] Accessed 7 August 2020.
- [5] World Health Organization (WHO). January 2011. "Report on the 24th Meeting of the European Regional Certification Commission for Poliomyelitis Eradication (Отчет 24-го Совещания Европейской региональной комиссии по сертификации ликвидации полиомиелита)". [http://www.euro.who.int/__data/assets/pdf_file/0019/147313/e95119R.pdf]. Accessed 7 August 2020.
- [6] World Health Organisation. 9 July 2012. "Review of the national tuberculosis program in Kazakhstan (Обзор национальной программы по туберкулезу в Казахстане)". [<http://www.euro.who.int/ru/countries/kazakhstan/news/news/2012/07/review-of-the-national-tuberculosis-programme-in-kazakhstan>]. Accessed 7 August 2020.
- [7] Ministry of Health of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/dsm?lang=ru>]. Accessed 7 August 2020.
- [8] National Center for Public Health. [<https://hls.kz/>]. Accessed 7 August 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

There is no evidence to suggest that Kazakhstan's network of reference laboratories is subject to external quality assurance (EQA) review.

The Republican AIDS Centre's reference laboratory in Almaty is the reference laboratory for HIV and uses serology testing methods [1]. The Centre's website does not publish information on external quality assurance review. [2]

There is evidence of reference facilities in Kazakhstan for the other relevant diseases, but no clear information on what type of tests are conducted. For example, the National Reference Laboratory for Control of Viral Infections, part of the Research-Practical Centre of Sanitary-Epidemiological Expertise and Monitoring of the National Centre of Public Health of the Ministry of Health (which also includes the Kazakh Science Centre for Quarantine and Zoonotic Diseases) is listed in a directory of national influenza centres by the World Health Organisation (WHO), but its website does not elaborate on testing methodology. [3, 4]

The country has a WHO accredited polio laboratory, and TB laboratory, however, there is no information detailing the testing methods used. [5,6] These reference laboratories do not have dedicated websites and there is no information available to suggest that they are involved in an EQA scheme.

There is no further information on the websites of the Ministry of Health or the National Centre of Public Health Care. [7, 8] It

is also not clear from these websites if Kazakhstan has designated four country-specific tests.

- [1] B. Zhussupov, et al. 2015. "Migrant Workers in Kazakhstan: Gender Differences in HIV Knowledge and Sexual Risk Behaviors: AIDS and Behavior 19 [7] : 1298–1304". [<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4503855/>]. Accessed 7 August 2020.
- [2] Kazakh Research Center for Dermatology and Infectious Diseases. "Republican Center for the Prevention and Control of AIDS (Республиканский центр по профилактике и борьбе со СПИД)". [<http://www.kncdiz.kz/ru/kntsdsiz/istoriya/center/>]. Accessed 7 August 2020.
- [3] World Health Organization (WHO). 28 July 2020. "National Influenza Centres". [https://www.who.int/influenza/gisrs_laboratory/national_influenza_centres/en/]. Accessed 7 August 2020.
- [4] Research-Practical Centre of Sanitary-Epidemiological Expertise and Monitoring. "Laboratory Services (Лабораторные Услуги)". [<http://rk-ncph.kz/ru/uslugi/laboratornye-uslugi>] Accessed 7 August 2020.
- [5] World Health Organization (WHO). January 2011. "Report on the 24th Meeting of the European Regional Certification Commission for Poliomyelitis Eradication (Отчет 24-го Совещания Европейской региональной комиссии по сертификации ликвидации полиомиелита)". [http://www.euro.who.int/__data/assets/pdf_file/0019/147313/e95119R.pdf]. Accessed 7 August 2020.
- [6] World Health Organisation. 9 July 2012. "Review of the national tuberculosis program in Kazakhstan (Обзор национальной программы по туберкулезу в Казахстане)". [<http://www.euro.who.int/ru/countries/kazakhstan/news/news/2012/07/review-of-the-national-tuberculosis-programme-in-kazakhstan>]. Accessed 7 August 2020.
- [7] Ministry of Health of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/dsm?lang=ru>]. Accessed 7 August 2020.
- [8] National Center for Public Health. [<https://hls.kz/>]. Accessed 7 August 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

There is no evidence to suggest that a nationwide system for specimen transport exists in Kazakhstan.

A 2013 USAID report on tuberculosis care indicates that Kazakhstan has a sample transportation system among the different tiers of laboratories. [1] The report notes that sputum samples are received regularly from surrounding health facilities and results are dispatched with the same transportation system. [1]

There is no further information on nationwide transportation systems on the websites of the Ministry of Health (including the Committee for Public Health Security), the Ministry of Agriculture, the National Public Health Center or the Kazakh Science Center for Quarantine and Zoonotic Diseases (KSCQZD). [2, 3, 4, 5]

- [1] United States Agency for International Development. July 2013. "TB CARE I Core project: Intensified implementation of GeneXpert MTB/RIF in 3 Countries". [http://www.tbcare1.org/publications/toolbox/tools/lab/TB_CARE_I_GeneXpert_Core_Project_Final_Report.pdf]. Accessed 7

August 2020.

[2] Ministry of Health of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/dsm?lang=ru>]. Accessed 7 August 2020.

[3] Ministry of Agriculture of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/moa?lang=ru>]. Accessed 7 August 2020.

[4] National Center for Public Health. [<https://hls.kz/>]. Accessed 7 August 2020.

[5] Kazakh Science Center for Quarantine and Zoonotic Diseases. [<https://nncooi.kz/>]. Accessed 21 August 2020.

2.2.2 Laboratory cooperation and coordination

2.2.2a

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

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

Current Year Score: 0

There is no evidence to suggest that Kazakhstan has a plan in place to rapidly authorize or license laboratories to supplement the capacity of the national public health laboratory system to scale-up testing during an outbreak.

With the outbreak of the SARS-CoV-2 virus, which led to the global COVID-19 pandemic in 2019/2020, the Kazakh authorities, including the Ministry of Health, rapidly increased the number of tests for the SARS-CoV-2 virus, but there is no evidence to suggest that this was done on the basis of a previously-existing plan, and rather, was introduced as a reactive measure to the spread of the virus. [1]

No evidence was found on the websites of the Ministry of Health, Ministry of Agriculture, or National Center for Public Health, which suggests that Kazakhstan has a plan in place to rapidly authorize or license laboratories to supplement the capacity of the national public health laboratory system to scale-up testing during an outbreak. [2, 3, 4]

[1] Ministry of Healthcare of the Republic of Kazakhstan. 2020. “Ministry adopts complex of measures to prevent transmission and spread of coronavirus in Kazakhstan (Минздравом РК принят комплекс мер по предупреждению завоза и распространения в Казахстане коронавирусной инфекции)”. [<http://www.government.kz/ru/news/press/minzdravom-rk-prinyat-kompleks-mer-po-preduprezhdeniyu-i-nerasprostraneniye-v-kazahstane-koronavirusnoy-infekcii>].

[2] Ministry of Health of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/dsm?lang=ru>]. Accessed 7 August 2020.

[3] Ministry of Agriculture of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/moa?lang=ru>]. Accessed 7 August 2020.

[4] National Center for Public Health. [<https://hls.kz/>]. Accessed 7 August 2020.

2.3 REAL-TIME SURVEILLANCE AND REPORTING

2.3.1 Indicator and event-based surveillance and reporting systems

2.3.1a

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

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

Current Year Score: 1

There is evidence to suggest that Kazakhstan is conducting ongoing event-based surveillance and analysis for infectious disease, but it is unclear as to how regularly data analysis occurs.

Due to the relatively high prevalence of plague (*Yersinia pestis*) in Kazakhstan, there is a heavy focus on plague surveillance, with the Kazakh Scientific Center for Quarantine and Zoonotic Diseases (KSCQZD) carrying out regular surveillance with a team of more than 1,500 people. [1] There is no evidence to suggest that the KSCQZD conducts additional surveillance for other infectious diseases. [2]

Additionally, since 2006, the Center for Disease Control and Prevention (CDC), has been operating a Global Disease Detection Regional Center (GDD) based in Kazakhstan, which works across Central Asia. [3] Further details on the frequency of surveillance are not provided on the CDC website, nor on those of Kazakhstan's Ministry of Health, Ministry of Agriculture, or National Center of Public Health Care. [3, 4, 5, 6]

A 2016 report by the International Society for Disease Surveillance noted that Kazakhstan currently uses epidemiological surveillance approaches, rather than prognostic, epi risk probability assessments. [7]

Additionally, a 2020 report by the Regional Director for the World Bank in Central Asia, noted that a new One Health initiative, totalling USD \$886 Million, is currently being developed in Kazakhstan, in co-operation with other Central Asian countries, which will focus on zoonotic disease surveillance. [8] The report provided little information on the details of the initiative.

[1] A. Aikimbayev, et al. 10 August 2010. "The Epidemiological Surveillance of Highly Pathogenic Diseases in Kazakhstan". [https://link.springer.com/chapter/10.1007/978-90-481-9637-1_2]. Accessed 7 August 2020.

[2] Kazakh Scientific Centre for Quarantine and Zoonotic Diseases. "National Scientific Center for Especially Dangerous Infections named after Masgut Aikimbaev of the Ministry of Health of the Republic of Kazakhstan (Национальный научный центр особо опасных инфекций имени Масгута Айкимбаева Министерства здравоохранения Республики Казахстан)". [<https://nncooi.kz/>]. Accessed 7 August 2020.

[3] Centers for Disease Control and Prevention (CDC). "Global Health - Central Asia". [<https://www.cdc.gov/globalhealth/countries/central-asia/index.html>]. Accessed 7 August 2020.

[4] Ministry of Health of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/dsm?lang=ru>]. Accessed 7 August 2020.

[5] Ministry of Agriculture of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/moa?lang=ru>]. Accessed 7 August 2020.

[6] National Center for Public Health. [<https://hls.kz/>]. Accessed 7 August 2020.

[7] International Society for Disease Surveillance. 2016. "Modernization of Epi Surveillance in Kazakhstan: Transition to Risk Assessment and Real-Time Monitoring Based on Situational Center". [<https://pdfs.semanticscholar.org/a858/597e5ab0e760f71b04a94df40c92ac9aae8b.pdf>]. Accessed 7 August 2020.

[8] Lilia Burunciuc (The Astana Times). 20 July 2020. "One Region, One Health: Preparing Central Asia for Future Pandemics". [<https://astanatimes.com/2020/07/one-region-one-health-preparing-central-asia-for-future-pandemics/>]. Accessed 7 August 2020.

2.3.1b

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

Yes = 1, No = 0

Current Year Score: 0

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

A meningitis outbreak was reported in the south of the country in June 2018, with around 60 cases and 13 deaths since the beginning of the year, but it is not clear whether this was reported specifically to the World Health Organization. [1, 2]

The only outbreak reported on Disease Outbreak News concerns a geographical spread of H5N1 avian influenza in birds from 2005. [3]

In March 2020, President of Kazakhstan Kassym-Jomart Tokayev declared a state of emergency in response to the outbreak of the COVID-19 pandemic in the country, however, there is no evidence to suggest that a PHEIC was reported to the WHO as a result. [4]

There is no other information on the website of the Ministry of Health, the National Center of Public Health Care or via the WHO Disease Outbreak News page. [5, 6, 3]

[1] Garda World. 10 June 2018. "Nationwide meningococcal disease outbreak; 60 cases confirmed in 2018 as of June 9". [https://www.garda.com/crisis24/news-alerts/126836/kazakhstan-nationwide-meningococcal-disease-outbreak]. Accessed 7 August 2020.

[2] Radio Free Europe/Radio Liberty. 6 June 2018. "Meningitis Kills 13 People In Kazakhstan". [https://www.rferl.org/a/kazakhstan-meningitis-kills-13/29275083.html]. Accessed 7 August 2020.

[3] World Health Organization. "Disease Outbreak News: Kazakhstan". [http://www.who.int/csr/don/archive/country/kaz/en/]. Accessed 7 August 2020.

[4] Baker McKenzie. 17 March 2020. "Kazakhstan Declares State of Emergency for COVID-19". [https://www.bakermckenzie.com/en/insight/publications/2020/03/kazakhstan-state-of-emergency-covid19]. Accessed 7 August 2020.

[5] Ministry of Health of the Republic of Kazakhstan. [https://www.gov.kz/memleket/entities/dsm?lang=ru]. Accessed 7 August 2020.

[6] National Center for Public Health. [https://hls.kz/]. Accessed 7 August 2020.

2.3.2 Interoperable, interconnected, electronic real-time reporting systems

2.3.2a

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

Yes = 1, No = 0

Current Year Score: 1

The government operates an electronic reporting surveillance system at both the national and sub-national level.

The Electronic Integrated Disease Surveillance System (EIDSS) supports collection and analysis of epidemiological, clinical and

laboratory information on infectious diseases in medical, veterinary and environmental sectors. As reported in 2013, the system was deployed in Kazakhstan at 150 sites (planned 271) in veterinary surveillance and at 8 sites (planned 23) in human surveillance (no more recent information was found on deployment of the surveillance system). [1, 2]

The system is based on a distributed data model with a hierarchical structure made up of four primary levels, including (from the top level down): the general data repository, central data repository, epidemiological monitoring stations, sentinel sites, threat agent detection and response (TADR) response vehicles, and mobile outbreak response units. [3] The system covered 64 diseases as of 2016, however there seems to be no more public recent information. [4]

[1] A. Burdakov, et al. 2013. "One Health Surveillance with Electronic Integrated Disease Surveillance System". Online Journal of Public Health Informatics 5[1] : e199. [<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3692852/>]. Accessed 7 August 2020.

[2] Ministry of the Republic of Kazakhstan. September 2016. "Self-assessment of the main operational functions of public health in the Republic of Kazakhstan (Самооценка основных оперативных функций общественного здравоохранения в Республике Казахстан)". [https://www.euro.who.int/__data/assets/pdf_file/0003/414489/EPHO_KAZ_All_RU_WHO.pdf]. Accessed 7 August 2020.

[3] A. Burdakov, et al. 2007. "Electronic Integrated Disease Surveillance System (EIDSS)". Advances in Disease Surveillance 2:171. [<http://faculty.washington.edu/lober/www.isdsjournal.org/htdocs/articles/918.pdf>]. Accessed 7 August 2020.

[4] B. Zhandarbek, et al. 2016. "Modernisation of Epi Surveillance in Kazakhstan: Transition to Risk Assessment and Real-Time Monitoring Based on Situational Centre". Online Journal of Public Health Informatics 8[1] :e92. [ojphi.org/ojs/index.php/ojphi/article/download/6506/5411]. Accessed 7 August 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

Kazakhstan has an electronic surveillance reporting system that collects real time laboratory data.

The Electronic Integrated Disease Surveillance System (EIDSS) is an electronic integrated disease surveillance system that integrates data across all EIDSS sites (including laboratories), continuously synchronizing this information across all the EIDSS sites within Kazakhstan. [1] The data is also securely stored and available for future reference and use. [1]

A 2015 report by the International Society for Disease Surveillance suggest that the EIDSS collects information on the epidemiological situation in real-time. [2] The system covered 64 diseases as of 2015. [2]

[1] A. Burdakov, et al. 2007. "Electronic Integrated Disease Surveillance System (EIDSS)". Advances in Disease Surveillance 2:171. [<http://faculty.washington.edu/lober/www.isdsjournal.org/htdocs/articles/918.pdf>]. Accessed 7 August 2020.

[2] B. Zhandarbek, et al. 2016. "Modernisation of Epi Surveillance in Kazakhstan: Transition to Risk Assessment and Real-Time Monitoring Based on Situational Centre". Online Journal of Public Health Informatics 8[1] :e92. [ojphi.org/ojs/index.php/ojphi/article/download/6506/5411]. Accessed 7 August 2020.

2.4 SURVEILLANCE DATA ACCESSIBILITY AND TRANSPARENCY

2.4.1 Coverage and use of electronic health records

2.4.1a

Are electronic health records commonly in use?

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

Current Year Score: 2

There is evidence to suggest that electronic health records are used in Kazakhstan, with their use reported to be common as of 2020.

As part of the Kazakh Government's drive towards digitalisation, particularly in the field of health, the "Electronic Passport of Health" (EPH) (electronic health record) system was introduced in 2018, with all Kazakh citizens reported to have been issued a passport in 2020. [1]

The EPH allows medical professionals to access details about EPH holders, including past illnesses, medications, allergies, immunizations, etc. [2] The information held by EPHs are renewed/updated on a weekly basis, on the basis of data held by medical institutions. [3]

No more information was available on the level of use of the EPHs.

[1] Republican Center for Electronic Health. 11 October 2018. "Electronic health Passport of citizens of the Republic of Kazakhstan (Электронный паспорт здоровья гражданина Республики Казахстан)".

[https://www.youtube.com/watch?time_continue=3&v=t4xqBByC3tY&feature=emb_title]. Accessed 7 August 2020.

[2] Zdrav.Expert. 3 December 2020. "Electronic Passport of Health in Kazakhstan (Электронный паспорт здоровья в Казахстане)".

[http://zdrav.expert/index.php/%D0%A1%D1%82%D0%B0%D1%82%D1%8C%D1%8F:%D0%AD%D0%BB%D0%B5%D0%BA%D1%82%D1%80%D0%BE%D0%BD%D0%BD%D1%8B%D0%B9_%D0%BF%D0%B0%D1%81%D0%BF%D0%BE%D1%80%D1%82_%D0%B7%D0%B4%D0%BE%D1%80%D0%BE%D0%B2%D1%8C%D1%8F_%D0%B2_%D0%9A%D0%B0%D0%B7%D0%B0%D1%85%D1%81%D1%82%D0%B0%D0%BD%D0%B5]. Accessed 7 August 2020.

[3] Profit.kz. 2 March 2020. "All Kazakhs already hold an Electronic Passport of Health (Все казахстанцы уже имеют электронный паспорт здоровья)". [<https://profit.kz/news/57131/Vse-kazahstanci-uzhe-imeut-elektronnij-pasport-zdorovya/>]. Accessed 7 August 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

In Kazakhstan, the national public health system does have access to electronic health records of individuals in the country.

Electronic Health Records (Electronic Health Passports in Kazakhstan) (EHPs) are available to all stakeholders and will be available anywhere in the country and from any medical organization in which the patient receives services, with the

patient's consent. [1]

As of 2020, all Kazakhs have been issued with an EHP. [2]

[1] Zdrav.Expert. 3 December 2020. "Electronic Passport of Health in Kazakhstan (Электронный паспорт здоровья в Казахстане)".

[http://zdrav.expert/index.php/%D0%A1%D1%82%D0%B0%D1%82%D1%8C%D1%8F:%D0%AD%D0%BB%D0%B5%D0%BA%D1%82%D1%80%D0%BE%D0%BD%D0%BD%D1%8B%D0%B9_%D0%BF%D0%B0%D1%81%D0%BF%D0%BE%D1%80%D1%82_%D0%B7%D0%B4%D0%BE%D1%80%D0%BE%D0%B2%D1%8C%D1%8F_%D0%B2_%D0%9A%D0%B0%D0%B7%D0%B0%D1%85%D1%81%D1%82%D0%B0%D0%BD%D0%B5]. Accessed 8 August 2020.

[2] inform БЮРО. 7 August 2019. "The electronic health passport of Kazakhs was posted on the eGov portal. How does it work? (Электронный паспорт здоровья казахстанцев разместили на портале eGov. Как это работает?)".

[<https://informburo.kz/cards/elektronnyy-pasport-zdorovya-kazahstancsev-razmestili-na-portale-egov-kak-eto-rabotaet.html>]. Accessed 8 August 2020.

2.4.1c

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

Yes = 1 , No = 0

Current Year Score: 1

In Kazakhstan there are data standards to ensure data is comparable.

Standardization in the field of e-Healthcare is regulated by the 2020 - 2021 Working Plan on e-Healthcare. [1]

The Working Plan is implemented by the Ministry of Health, as well as the Social Health Insurance Project Management Group of the Ministry of Health of the Republic of Kazakhstan and the International Bank for Reconstruction and Development (World Bank); Republican state enterprise on the right of economic management "Republican Center for Electronic Health" of the Ministry of Health of the Republic of Kazakhstan; Joint Stock Company National Infocommunication Holding Zerde; State utility company on the right of economic management "Cancer Center"; Republican State Enterprise on the right of economic management "Research Institute of Cardiology and Internal Diseases"; School of Medicine of Nazarbayev University; Joint Stock Company "Astana Medical University"; Corporate Foundation "University Medical Center". [2]

In the field of state standardization, the following activities are being carried out: approval of preliminary national standards; organization of monitoring and evaluation of the application of the approved preliminary national standard in order to transform it into a national standard; preparation of proposals to determine the main directions of development of the state system of technical regulation in e-health; participation in the development and examination of national standards, preliminary national standards and classifiers of technical and economic information, international, regional, national standards and classifiers of technical and economic information of foreign states and changes to them in the manner established by the legislation of the Republic of Kazakhstan in the field of technical regulation on e-health ; preparation of proposals on the revision, amendment or cancellation of the current regulatory legal acts on e-health; preparation of proposals and work on the unification and harmonization of normative legal acts and documents applied in the Republic of Kazakhstan with international, regional and national standards and classifiers of foreign countries; preparation of proposals for annual work plans for state standardization; interaction with national standardization organizations, international, regional and interstate technical committees on e-health; participation in the work of other technical committees within

their competence. [2]

[1] Republican Center for Healthcare Development. 2019. "Work Plan of the Technical Committee for Standardization No. 83 "E-Health" for 2020-2021 (План Работ Технического комитета по стандартизации № 83 «Электронное здравоохранение» на 2020-2021 года)". [<https://drive.google.com/file/d/1xHltsCAOIG60SZ0kLzv45ctSHAMyxRnt/view>]. Accessed 8 August 2020.

[2] Republican Center for Healthcare Development. "State standardization (Государственная стандартизация)". [<http://www.rcrz.kz/index.php/ru/2017-03-12-10-51-14/elektronnoe-zdravookhranenie?id=623>]. Accessed 8 August 2020.

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

2.4.2a

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

Yes = 1, No = 0

Current Year Score: 0

In Kazakhstan, there is no publicly available evidence of established mechanisms at the relevant ministries responsible for animal, human and wildlife surveillance to share data.

The Department for Public Health Protection, which forms part of the Ministry of Public Health, has several references in its constitution to collaboration with other state authorities where they pertain to public health. Its tasks include interdepartmental coordination, carrying out regulatory, implementation and control and supervisory functions on issues pertaining to public health security and implementation of inter-sectoral coordination of activities of government agencies to ensure the implementation of state policy in the field of public health protection and epidemiological well-being of the population. However, it does not refer specifically to data sharing. [1]

There is no further information on the websites of the Ministry of Health, the National Centre of Public Healthcare, the Research-Practical Centre of Sanitary-Epidemiological Expertise and Monitoring, the Ministry of Agriculture, or the Ministry of Ecology, Geology and Natural Resources (responsible for environmental matters). [2, 3, 4, 5, 6]

Whilst the Central Reference Laboratory (CRL) in Almaty, a facility in which research and diagnostics are conducted in the epidemiological, bacteriological and virological areas, is used by the Ministry of Health, Ministry of Agriculture and Ministry of Education and Science, there is no clear evidence, on the CRL's website, of a specific mechanism by which data is shared. [7]

[1] Ministry of Health of the Republic of Kazakhstan. 18 Feb 2020. "Decree of the Department of Public Health (Положение Департамента политики общественного здравоохранения)". [https://www.gov.kz/api/v1/public/assets/2020/2/18/1de266b773c91a7dcc7677cab5b8d925_original.72704.doc]. Accessed 8 August 2020.

[2] Ministry of Health of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/dsm?lang=ru>]. Accessed 8 August 2020.

[3] National Center for Public Healthcare. [<https://hls.kz/>]. Accessed 8 August 2020.

[4] Research-Practical Centre of Sanitary-Epidemiological Expertise and Monitoring. [<http://rk-ncph.kz/ru/>]. Accessed 8 August 2020.

[5] Ministry of Agriculture of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/moa?lang=ru>]. Accessed 8

August 2020.

[6] Ministry of Ecology, Geology and Natural Resources of the Republic of Kazakhstan.

[<https://www.gov.kz/memleket/entities/ecogeo?lang=ru>]. Accessed 8 August 2020.

[7] National Scientific Center for Especially Dangerous Infections named after Masgut Aikimbaev of the Ministry of Health of the Republic of Kazakhstan. “CRL (ЦРЛ)”. [<https://nncooi.kz/crl/>]. Accessed 8 August 2020.

2.4.3 Transparency of surveillance data

2.4.3a

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

Yes = 1 , No = 0

Current Year Score: 1

Kazakhstan does make de-identified health surveillance data on disease outbreaks publicly available via reports on government websites.

The website of the Research-Practical Center of Sanitary-Epidemiological Expertise and Monitoring has reports on the epidemiological situation, which cover various periods, but no new reports have been published since September 2019. [1]

Additionally, the Center publishes weekly reports on the epidemiological situation, on the incidence of Acute Respiratory Viral Infection, and influenza. The last available report, as of March 31st 2021, is for the week ending on March 25th, 2021. [2]

The Center is a facility based in Almaty, under the authority of the Ministry of Health, which carries out surveillance, testing and diagnostics of infectious diseases, such as measles and rubella, as well as conducting research into vaccines. [3]

The Center also regularly hosts international conferences on subjects related to epidemiology and publishes content from those conferences on its website. [4]

[1] Research-Practical Center of Sanitary-Epidemiological Expertise and Monitoring. September 2019. “Sanitary-Epidemiological Situation (Санэпидситуация)”. [<http://rk-ncph.kz/ru/sanepidem>]. Accessed 8 August 2020.

[2] Research-Practical Center of Sanitary-Epidemiological Expertise and Monitoring. 6 August 2020. “Weekly Situation (Еженедельная Ситуация)”. [<http://rk-ncph.kz/ru/sanepidem/ezhenedel'naya-situatsiya>]. Accessed 8 August 2020.

[3] Research-Practical Center of Sanitary-Epidemiological Expertise and Monitoring. “Mission (Миссия)”. [<http://rk-ncph.kz/ru/o-tsentre/missiya>]. Accessed 8 2020.

[4] Research-Practical Center of Sanitary-Epidemiological Expertise and Monitoring. “International co-operation (Международное сотрудничество)”. [<http://rk-ncph.kz/ru/o-tsentre/mezhdunarodnoe-sotrudnichestvo>]. Accessed 8 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

Kazakhstan does make de-identified COVID-19 surveillance data (including details such as daily case count, mortality rate, etc) available via daily reports (or other formats) on government websites.

The National Center for Public Healthcare of the Republic of Kazakhstan (NCPH), collects and publishes COVID-19 surveillance data on its website, which is updated on a daily basis. [1]

Data on the NCPH includes the total number of confirmed cases of the SARS-CoV-2 virus in Kazakhstan, growth of number of cases, lethal outcomes, number of patients cured, number of tests carried out, as well as the number of people sick with COVID-19 on a given day. [1] All information is broken down by cities (Nur-Sultan and Almaty and other regions). [1]

Additionally, the Ministry of Kazakhstan operates a website “Coronavirus 2020 Kazakhstan”, which also makes de-identified COVID-19 surveillance data publicly-available. [2]

[1] National Center for Public Healthcare of the Republic of Kazakhstan. 7 August 2020. “Data on COVID-19 in Kazakhstan (Данные по COVID-19 в Казахстане)”. [<https://hls.kz/>]. Accessed 8 August 2020.

[2] Ministry of Health of the Republic of Kazakhstan. 8 August 2020. “Coronavirus Situation (Official) (Ситуация с Коронавирусом Официально)”. [<https://www.coronavirus2020.kz/>]. Accessed 8 August 2020.

2.4.4 Ethical considerations during surveillance

2.4.4a

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

Yes = 1 , No = 0

Current Year Score: 1

In Kazakhstan, there are laws that safeguard the confidentiality of identifiable health information for individuals.

In 2020, Kazakhstan adopted a new Public Health Code, which safeguards the confidentiality of identifiable health information for individuals. Article 62 of the Code ensures the protection of personal medical data of individuals and prohibits the use of electronic information resources containing personal medical data for the purpose of causing property and (or) moral harm, restricting the exercise of rights and freedoms guaranteed by Kazakh law. [1]

Additionally, the 2020 Code, provides that the confidentiality of personal medical data must be safeguarded in the field of “Digital Healthcare”. [1]

[1] online.zakon.kz. 7 July 2020. “Code of the Republic of Kazakhstan dated July 7, 2020 No. 360-VI "On people's health and the health care system" (Кодекс Республики Казахстан от 7 июля 2020 года № 360-VI «О здоровье народа и системе здравоохранения»)”. [https://online.zakon.kz/document/?doc_id=34464437#pos=4;-106]. Accessed 8 August 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

In Kazakhstan there is no publicly-available information to suggest that laws safeguarding the confidentiality of identifiable health information for individuals specifically include protections from cyber-attacks.

The protection of confidentiality of identifiable health information in Kazakhstan is primarily regulated by the 2020 Public Health Code, which does include provisions on the need to ensure that personal health information confidentiality is protected, however, the Code does not make any reference to cyber-attacks. [1]

There is no further information on the websites of the Ministry of Health, the Research-Practical Center of Sanitary-Epidemiological Expertise and Monitoring, or the National Center for Public Health. [2, 3, 4]

[1] online.zakon.kz. 7 July 2020. "Code of the Republic of Kazakhstan dated July 7, 2020 No. 360-VI "On people's health and the health care system" (Кодекс Республики Казахстан от 7 июля 2020 года № 360-VI «О здоровье народа и системе здравоохранения»)". [https://online.zakon.kz/document/?doc_id=34464437#pos=4;-106]. Accessed 8 August 2020.

[2] Ministry of Health of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/dsm?lang=ru>]. Accessed 8 August 2020.

[3] Research-Practical Center of Sanitary-Epidemiological Expertise and Monitoring. [<http://rk-ncph.kz/ru/>]. Accessed 8 August 2020.

[4] National Center for Public Health. [<https://hls.kz/>]. Accessed 8 August 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, Yes, commitments have been made to share data only for one disease = 1, No = 0

Current Year Score: 0

There is no publicly-available evidence to suggest that the Government of Kazakhstan has made a commitment via public statements, legislation, and/or a co-operative agreement to share surveillance data during a public health emergency with other countries in the region.

Paragraph 7 of the Protocol on Application of Sanitary, Veterinary-Sanitary and Phytosanitary Quarantine Measures (Annex 12) to the Treaty on the Eurasian Economic Union (EAEU), of which Kazakhstan is a member, states that authorized authorities in the field of sanitary and epidemiological welfare of the population shall inform each other about each case of detection of especially dangerous infectious diseases listed in the international health regulations - mainly in the context of trade. Paragraph 5 refers more generally to taking agreed measures to eliminate infectious diseases on the customs territory of the Union. [1]

Additionally, the strategic directions of the of the Center for Emergency Situations and Disaster Risk Reduction, which is a joint center between Kazakhstan and Kyrgyzstan, has various declared points of cooperation - including mutual notification of emergencies risk; and creating international monitoring systems that would extend across states. [2]

There was no information on international co-operation during a public health emergency with other countries in the region

on the website of the Ministry of Health. [3]

A 2020 report by the Regional Director for the World Bank in Central Asia, noted that a new “One Health” initiative, totalling USD \$886 Million, is currently being developed in Kazakhstan, in co-operation with other Central Asian countries, which will focus on zoonotic disease surveillance. [4] The report provided little information on the details of the initiative, but did mention that a heavy focus of the initiative is to include more co-operation between Central Asian countries in the field of disease surveillance.

[1] Treaty on the Eurasian Economic Union. [http://www.un.org/en/ga/sixth/70/docs/treaty_on_eeu.pdf]. Accessed 8 August 2020.

[2] Center for Emergency Situations and Disaster Risk Reduction. “Strategic Directions of the of the Center for Emergency Situations and Disaster Risk Reduction in Almaty up to 2030”. [<http://cesdrr.org/wp-content/uploads/2017/09/Centers-Strategic-DIrections-eng-final.pdf>]. Accessed 8 August 2020.

[3] Ministry of Health of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/dsm?lang=ru>]. Accessed 22 August 2020.

[4] Lilia Burunciuc (The Astana Times). 20 July 2020. “One Region, One Health: Preparing Central Asia for Future Pandemics”. [<https://astanatimes.com/2020/07/one-region-one-health-preparing-central-asia-for-future-pandemics/>]. Accessed 7 August 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 no publicly-available evidence to suggest that Kazakhstan has a national system in place to provide support at the sub-national level (e.g. training, metrics standardization and/or financial resources) to conduct contact tracing in the event of a public health emergency.

The only references to contact tracing in Kazakhstan are in relation to the development of a mobile application, which was developed in Kazakhstan following the outbreak of the COVID-19 pandemic and allows users to track the infections of COVID-19 in real time. [1, 2]

There is no reference to contact tracing on the website of the Ministry of Health (including the Department for Public Healthcare), or National Center for Public Health. [3, 4]

[1] covid19live.kz. [<https://covid19live.kz/>]. Accessed 8 August 2020.

[2] TASS (Russian News Agency). 21 March 2020. “An application for tracking coronavirus infected has been developed in Kazakhstan (В Казахстане разработали приложение для отслеживания инфицированных коронавирусом)”. [<https://tass.ru/obschestvo/8044557>]. Accessed 8 August 2020.

[3] Ministry of Health of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/dsm?lang=ru>]. Accessed 8 August 2020.

[4] National Center for Public Health. [<https://hls.kz/>]. Accessed 8 August 2020.

2.5.1b

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

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

Current Year Score: 0

There is no evidence that Kazakhstan provides wraparound services to enable infected people and their contacts to self-isolate or quarantine as recommended, including economic support and medical attention.

Per the law "On Public Health and the Healthcare System" (originally signed into law in 2009 and comprehensively revised in July 2020), public health authorities can recommend that individuals with suspected cases of a particular infectious disease, as well as their close contacts, undergo self-isolation as the situation permits. This law does not provide for wraparound support to individuals in self-isolation. [1]

In March 2020, the Chief Sanitary Doctor of Kazakhstan released a set of guidelines for the isolation of individuals suspected of being infected with COVID-19. The guidelines state that individuals in self-isolation are subject to being monitored for symptoms of COVID-19, which takes place primarily through video calls. [2, 3] The document from the Chief Sanitary Doctor also provides a number of guidelines for individuals in self-isolation and their close contacts, stating, for example, that these individuals must have telephone access and access to personal protective equipment. [2] There is no provision here for wraparound health services, and no further information could be found on the websites of the Ministry of Health or of the National Center for Public Health.

There is also no evidence that individuals in self-isolation are given job security guarantees. No evidence of this could be found on the websites of the Ministry of Health or of the Ministry of Labor and Social Protection, nor in Kazakhstan's Labor Code. [4, 5, 6]

[1] Government of Kazakhstan. July 2020. "On Public Health and the Healthcare System" ("О здоровье народа и системе здравоохранения"). [https://online.zakon.kz/document/?doc_id=34464437]. Accessed 8 August 2020.

[2] Chief Sanitary Doctor of Kazakhstan. March 2020. "Strengthened measures to prevent the spread of the coronavirus infection in the Republic of Kazakhstan" ("Об усилении мер по недопущению распространения коронавирусной инфекции в Республике Казахстан"). [https://online.zakon.kz/document/?doc_id=39593175]. Accessed 8 August 2020.

[3] Chief Sanitary Doctor of Kazakhstan. June 2020. "Changes and additions to Decree No. 37 of the Chief Sanitary Doctor of the Republic of Kazakhstan from 22 May 2020" ("О внесении изменений и дополнений в постановление Главного государственного санитарного врача Республики Казахстан № 37 от 22 мая 2020 года"). [https://online.zakon.kz/Document/?doc_id=34522130]. Accessed 8 August 2020.

[4] Ministry of Health of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/dsm?lang=ru>]. Accessed 7 August 2020.

[5] Ministry of Labor and Social Protection of Population of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/enbek>]. Accessed 8 August 2020.

[6] Government of Kazakhstan. July 2020. "Labor Code of the Republic of Kazakhstan" ("Трудовой кодекс Республики

Казахстана"). [https://online.zakon.kz/document/?doc_id=38910832]. Accessed 8 August 2020.

2.5.1c

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

Yes = 1, No = 0

Current Year Score: 0

The government of Kazakhstan makes de-identified data on the incidence of COVID-19 available online, but information about contact tracing efforts is not publicly available.

The Ministry of Health of Kazakhstan posts daily updates on the COVID-19 situation in the country, including the number of new infections, the number of new deaths, and the number of people undergoing treatment. These daily updates do not contain information about contact tracing efforts. [1]

De-identified COVID-19 data is also made available on the government coronavirus portal, coronavirus2020.kz. Contact tracing data is not available on this website. [2]

Kazakhstan's COVID-19 contact tracing efforts are addressed in a June 2020 decree by the Chief Sanitary Doctor Kazakhstan, which requires healthcare providers to identify people who were potentially exposed to COVID-19 by a close contact. This decree does not include any sort of requirement for this information to be made publicly available. [3]

[1] Ministry of Health of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/dsm?lang=ru>]. Accessed 7 August 2020.

[2] Ministry of Information and Social Development. "Coronavirus situation" ("СИТУАЦИЯ С КОРОНАВИРУСОМ"). [<https://www.coronavirus2020.kz>]. 8 August 2020.

[3] Chief Sanitary Doctor of Kazakhstan. June 2020. "Changes and additions to Decree No. 37 of the Chief Sanitary Doctor of the Republic of Kazakhstan from 22 May 2020" ("О внесении изменений и дополнений в постановление Главного государственного санитарного врача Республики Казахстан № 37 от 22 мая 2020 года"). [https://online.zakon.kz/Document/?doc_id=34522130]. Accessed 8 August 2020.

2.5.2 Point of entry management

2.5.2a

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

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

Current Year Score: 1

A joint plan is in place between the Kazakhstan 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, but the plan only covers an active public health emergency.

Per decrees published by the Chief Sanitary Doctor in June and July 2020, on a daily basis, border control authorities are required to report data on the number of travelers arriving from countries with high COVID-19 infection rates to the National Center for Public Health. [1, 2] At present, all passengers arriving from abroad are subject to PCR testing for COVID-19 and placement in a quarantine facility for up to two days after arrival, unless they possess a recent negative test result. [3]

Kazakhstan has also made efforts to promote contact tracing for international travelers. The decrees from June and July 2020 establish guidelines for the safe operation of a number of types of businesses, including sports facilities, gyms, recreational centers, children's camps, and prisons; it is stated that the managers of such facilities must discourage access by recent international travelers and by those who have had contact with them. Factory owners must ensure that any workers returning from abroad abide by a two-week period of self-isolation. [1, 2] The decree from June 2020 includes an attachment with a template for a letter to be completed by a "contact of a person infected with COVID-19 or who has recently arrived in Kazakhstan via airplane," but it is not clear whether contacts of recent travelers are actively traced. [2]

Finally, per the law "On Public Health and the Healthcare System" (originally signed into law in 2009 and comprehensively revised in July 2020), Kazakhstan may establish temperature checkpoints, testing stations and quarantine facilities at ports of entry in order to monitor international travelers arriving from countries experiencing an infectious disease outbreaks. [4] But there is no further elaboration on cooperation specifically between the health and border control authorities.

[1] Chief Sanitary Doctor of Kazakhstan. July 2020. "Further strengthened measures to prevent the spread of the coronavirus infection in the Republic of Kazakhstan" ("О дальнейшем усилении мер по предупреждению заболеваний коронавирусной инфекцией среди населения Республики Казахстан").

[https://online.zakon.kz/Document/?doc_id=37566604]. Accessed 8 August 2020.

[2] Chief Sanitary Doctor of Kazakhstan. June 2020. "Further strengthened measures to prevent the spread of the coronavirus infection at border checkpoints in the Republic of Kazakhstan" ("О дальнейшем усилении мер по предупреждению заболеваний коронавирусной инфекцией в пунктах пропуска на государственной границе Республики Казахстан").

[https://online.zakon.kz/Document/?doc_id=37118739]. Accessed 8 August 2020.

[3] U.S. Embassy and Consulate in Kazakhstan. 6 August 2020. "COVID-19 Information." [<https://kz.usembassy.gov/covid-19-information/>]. Accessed 8 August 2020.

[4] Government of Kazakhstan. July 2020. "On Public Health and the Healthcare System" ("О здоровье народа и системе здравоохранения"). [https://online.zakon.kz/document/?doc_id=34464437]. Accessed 8 August 2020.

2.6 EPIDEMIOLOGY WORKFORCE

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

2.6.1a

Does the country meet one of the following criteria?

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

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

Current Year Score: 1

An applied epidemiology training program is available in Kazakhstan, but there is no evidence that resources are provided by the government of Kazakhstan to send citizens to another country to participate in applied epidemiology training programs.

The Centers for Disease Control and Prevention's (CDC) Kazakhstan-based Central Asia office has offered a Field Epidemiology and Laboratory Training Programme (FELTP CAR) to build workforce capacity and provide assistance to ministries of health throughout the region. FELTP concentrates on "applied epidemiology, disease surveillance, outbreak response, laboratory methods, and program evaluation." [1] Examples of activities sponsored by FELTP CAR have included two five-day public health surveillance workshops in Almaty, the capital of Kazakhstan, that sought to engage epidemiologists from around the country. [2] FELTP CAR oversees the Applied Epidemiology master's degree programme at the state-owned Kazakh National Medical University. [3]

FELTP CAR in Kazakhstan also receives logistical support from the Training Programs in Epidemiology and Public Health Interventions Network (TEPHINET). [4]

None of the websites of the Ministry of Health (including the Committee for Public Health Protection), the National Center of Expertise (which focuses on improving expertise in the sanitary and epidemiological fields, overseeing research, and ensuring effective anti-epidemic and preventive measures), or the National Center for Public Health, contain information about resources being provided to send nationals of Kazakhstan to other countries to participate in applied epidemiology training programmes. [5, 6, 7]

[1] Centers for Disease Control and Prevention. October 2017. "CDC in Kazakhstan".

[https://www.cdc.gov/globalhealth/countries/kazakhstan/pdf/kazakhstan_factsheet.pdf]. Accessed 4 August 2020.

[2] U.S. Embassy and Consulate in Kazakhstan. "Scope of Work: Central Asia Field Epidemiology Training Program: Workshops on public health surveillance and outbreak investigation, Almaty, Kazakhstan August 26 - September 13, 2019".

[https://kz.usembassy.gov/wp-content/uploads/sites/46/PR8488019_SOW.pdf]. Accessed 4 August 2020.

[3] Kazakh National Medical University. "Master's programmes" ("Магистратура").

[<https://kaznu.kz/rus/postupajushhim/postdiplomnoe-obrazovanie/magistratur>]. Accessed 4 August 2020.

[4] Training Programs in Epidemiology and Public Health Interventions Network. "Support to the Central Asia Regional Field Epidemiology and Laboratory Training Program". [<https://www.tephinet.org/support-to-the-central-asia-regional-field-epidemiology-and-laboratory-training-program>]. Accessed 4 August 2020.

[5] Ministry of Health of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/dsm?lang=ru>]. Accessed 4 August 2020.

[6] National Center of Expertise. [<https://www.nce.kz/>] Accessed 4 August 2020.

[7] National Center for Public Health. [<https://hls.kz/>]. Accessed 4 August 2020.

2.6.1b

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

Yes = 1 , No = 0

Current Year Score: 0

Kazakhstan's field epidemiology training programme is not explicitly inclusive of animal health professionals.

The Centers for Disease Control and Prevention's (CDC) Kazakhstan-based Central Asia office offers a Field Epidemiology and

Laboratory Training Programme (FELTP CAR) that concentrates, according to the programme description, on "applied epidemiology, disease surveillance, outbreak response, laboratory methods, and program evaluation with additional courses in study design and scientific writing." No explicit reference to animal health professionals is provided. [1]

TEPHINET (Training Programs in Epidemiology and Public Health Interventions Network) also notes in its index of member programmes that FELTP CAR does not have a veterinary training component. [2]

There are graduate-level programmes offered in veterinary medicine and veterinary sanitation at the S. Seifulin Kazakh Agrotechnical University, but it is not clear whether these programmes have an explicit field epidemiology training component.

The World Health Organization's 2016 Joint External Evaluation report for Kyrgyzstan (which also participates FELTP CAR) mentions that a veterinarian is being trained in Almaty, Kazakhstan, but does not explicitly state that this is a core part of the FETP programme. [4] No further information is available on the website of the Ministry of Health of Kazakhstan. [5]

[1] Centers for Disease Control and Prevention. October 2017. "CDC in Kazakhstan".

[https://www.cdc.gov/globalhealth/countries/kazakhstan/pdf/kazakhstan_factsheet.pdf]. Accessed 4 August 2020.

[2] Training Programs in Epidemiology and Public Health Interventions Network (TEPHINET). May 2019. "TEPHINET Member Programs." [<https://www.tephinet.org/sites/tephinet/files/content/attachment/2019-05-10/TEPHINET%20Member%20Programs%20at%20a%20Glance.pdf>]. Accessed 8 August 2020.

[3] S. Seifulin Kazakh Agrotechnical University. "Faculty of Veterinary Medicine and Animal Husbandry Technologies" ("Факультет ветеринарии и технологии животноводства"). [<https://kazatu.kz/ru/obrazovanie/fakulteti/fakultet-veterinariii-tehnologii-jivotnovodstva>]. 8 August 2020.

[4] World Health Organization. 2017. "Joint External Evaluation of IHR Core Capacities of the Kyrgyz Republic".

[<https://apps.who.int/iris/bitstream/handle/10665/259697/WHO-WHE-CPI-2017.22-eng.pdf?sequence=1>]. Accessed 8 August 2020.

[5] Ministry of Health of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/dsm?lang=ru>]. Accessed 7 August 2020.

2.6.2 Epidemiology workforce capacity

2.6.2a

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

Yes = 1, No = 0

Current Year Score: 0

2020

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

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

3.1 EMERGENCY PREPAREDNESS AND RESPONSE PLANNING

3.1.1 National public health emergency preparedness and response plan

3.1.1a

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

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

Current Year Score: 2

Kazakhstan has a national public health emergency response plan which addresses planning for multiple communicable diseases with epidemic/pandemic potential, and the plan is publicly available.

The government decree on the "Plan for the Liquidation of Emergencies of Global and Regional Scale," last updated in May 2019, covers a range of public and animal health emergencies, including epidemic, epizootic and epiphytotic situations [1]. The plan lays out a table of actions where each action corresponds to a responsible entity and response time-frame according to the nature of the emergency [1]. Emergencies are classified by category, with epidemic, epizootic and epiphytotic events broadly requiring preventative measures such as quarantine zones, informing the public and response forces, and organizing veterinary measures (in the case of animal-borne disease outbreaks). While the resolution does not list or mention any specific diseases explicitly, it does clearly set out guidelines for the prevention of, and response to, the spread of multiple infectious and parasitic diseases [1].

Additionally, the law "On Public Health and the Healthcare System" (signed into law in July 2020) establishes restrictive measures that should be implemented in the event of an epidemic outbreak, including border closures, business closures, restrictions on public gatherings, the establishment of temperature checkpoints, mandated isolation, and enhanced cleaning and disinfection procedures. The Chief Sanitary Doctors at the national and regional levels are responsible for determining when the implementation of such measures is necessary. [2]

[1] Government of Kazakhstan. 20 May 2019. "On approval of action plans for emergency response of global and regional scale" ("Об утверждении планов действий по ликвидации чрезвычайных ситуаций глобального и регионального масштабов").

[https://tengrinews.kz/zakon/pravitelstvo_respubliki_kazahstan_premier_ministr_rk/natsionalnaya_bezопасnost/id-P1900000357/]. Accessed 8 August 2020.

[2] Government of Kazakhstan. July 2020. "On Public Health and the Healthcare System" ("О здоровье народа и системе здравоохранения"). [https://online.zakon.kz/document/?doc_id=34464437]. Accessed 8 August 2020.

3.1.1b

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

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

Current Year Score: 1

Kazakhstan's overarching public health emergency preparedness plan has been updated within the last three years.

The government decree on the "Plan for the Liquidation of Emergencies of Global and Regional Scale," approved in 2017 and last updated in May 2019, covers a range of public and animal health emergencies, including epidemic, epizootic and epiphytotic situations [1]. The plan lays out a table of actions where each action corresponds to a responsible entity and response time-frame according to the nature of the emergency [1]. Emergencies are classified by category, with epidemic, epizootic and epiphytotic events broadly requiring preventative measures such as quarantine zones, informing the public and response forces, and organizing veterinary measures (in the case of animal-borne disease outbreaks).

Additionally, the law "On Public Health and Healthcare" was signed into law in June 2020. This law establishes restrictive measures that should be implemented in the event of an outbreak, including border closures, business closures, restrictions on public gatherings, the establishment of temperature checkpoints, mandated isolation, and enhanced cleaning and disinfection procedures. The Chief Sanitary Doctors at the national and regional levels are responsible for determining when the implementation of such measures is necessary. [2]

[1] Government of Kazakhstan. 20 May 2019. "On approval of action plans for emergency response of global and regional scale" ("Об утверждении планов действий по ликвидации чрезвычайных ситуаций глобального и регионального масштабов").

[https://tengrinews.kz/zakon/pravitelstvo_respubliki_kazahstan_premier_ministr_rk/natsionalnaya_bezопасnost/id-P1900000357/]. Accessed 8 August 2020.

[2] Government of Kazakhstan. July 2020. "On Public Health and the Healthcare System" ("О здоровье народа и системе здравоохранения"). [https://online.zakon.kz/document/?doc_id=34464437]. Accessed 8 August 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

Kazakhstan's overarching emergency preparedness plan does not include considerations for vulnerable populations.

The government decree on the "Plan for the Liquidation of Emergencies of Global and Regional Scale," approved in 2017 and last updated in May 2019, covers a range of public and animal health emergencies, including epidemic, epizootic and epiphytotic situations [1]. The plan lays out a table of actions where each action corresponds to a responsible entity and response time-frame according to the nature of the emergency [1]. Emergencies are classified by category, with epidemic, epizootic and epiphytotic events broadly requiring preventative measures such as quarantine zones, informing the public and response forces, and organizing veterinary measures (in the case of animal-borne disease outbreaks). However, the plan does not include provisions for specific populations, and a separate plan is not publicly available on the website of the Ministry of Health of Kazakhstan or of the Committee for Emergency Situations. [2, 3] The law "On Public Health and Healthcare" (signed into law in June 2020) establishes restrictive measures that should be implemented in the event of an outbreak but also does not include provisions for specific populations. [4]

UNICEF in Kazakhstan states that it "has supported government efforts to advance disaster resilience of children through improved policies, education curricula and standards." [5] Additionally, during the COVID-19 pandemic, the Government of Kazakhstan enacted a number of measures to support vulnerable populations, including the provision of food packages to

children and adults with disabilities and the unemployed, as well as the distribution of free masks to unspecified "vulnerable populations" in the country's Almaty region. [6, 7]

[1] Government of Kazakhstan. 20 May 2019. "On approval of action plans for emergency response of global and regional scale" ("Об утверждении планов действий по ликвидации чрезвычайных ситуаций глобального и регионального масштабов").

[https://tengrinews.kz/zakon/pravitelstvo_respubliki_kazahstan_premier_ministr_rk/natsionalnaya_bezопасnost/id-P1900000357/]. Accessed 8 August 2020.

[2] Ministry of Health of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/dsm?lang=ru>]. Accessed 7 August 2020.

[3] Committee for Emergency Situations of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/emerg/>]. Accessed 5 August 2020.

[4] Government of Kazakhstan. July 2020. "On Public Health and the Healthcare System" ("О здоровье народа и системе здравоохранения"). [https://online.zakon.kz/document/?doc_id=34464437]. Accessed 8 August 2020.

[5] UNICEF. 23 January 2019. "UNICEF and the Government of Kazakhstan Begin Test Flights for Emergency Response". [<https://www.unicef.org/innovation/stories/unicef-and-government-kazakhstan-begin-test-flights-emergency-response>]. Accessed 8 August 2020.

[6] Khabar.kz. 1 April 2020. "President of Kazakhstan social support measures" ("Президент РК озвучил ряд мер по социальной поддержке граждан"). [<https://khabar.kz/ru/news/politika/item/122382-prezident-rk-ozvuchil-ryad-mer-po-sotsialnoj-podderzhke-grazhdan>]. Accessed 8 August 2020.

[7] zakon.kz. 1 April 2020. "More than 200,000 masks distributed in Almaty oblast" ("Более 200 тысяч масок выпускают в Алматинской области"). [<https://www.zakon.kz/5014607-bolee-200-tysyach-masok-vypuskayut-v.html>]. Accessed 8 August 2020.

3.1.1d

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

Yes = 1 , No = 0

Current Year Score: 0

2020

WHO Strategic Partnership for IHR and Health Security (SPH)

3.1.2 Private sector involvement in response planning

3.1.2a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence that Kazakhstan has specific mechanisms for engaging with the private sector to assist with outbreak emergency preparedness and response. The main emergency response plan, first approved in 2017 and last updated in 2019, assigns a responsible party to each facet of the emergency response, but all of these are state bodies. [1] There is no further

information on the websites of the Ministry of Health, the National Center for Public Health Care, or the Committee for Emergency Situations. [2,3,4]

[1] Government of Kazakhstan. 20 May 2019. "On approval of action plans for emergency response of global and regional scale" ("Об утверждении планов действий по ликвидации чрезвычайных ситуаций глобального и регионального масштабов").

[https://tengrinews.kz/zakon/pravitelstvo_respubliki_kazahstan_premier_ministr_rk/natsionalnaya_bezопасnost/id-P1900000357/]. Accessed 8 August 2020.

[2] Ministry of Health of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/dsm?lang=ru>]. Accessed 5 August 2020.

[3] National Center of Public Health Care. [<https://hls.kz/>]. Accessed 5 August 2020.

[4] Committee for Emergency Situations. [<http://emer.gov.kz/ru/>]. Accessed 5 August 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: 2

Kazakhstan has guidelines on the implementation of non-pharmaceutical interventions (NPIs) during public health emergencies that cover more than one disease.

Article 104 of the law "On Public Health and Healthcare" establishes that "restrictive measures, including quarantines, should be implemented taking into consideration regional specificities, contagion, lethality" and other factors. Specific restrictive measures/NPIs mentioned in the law include border closures, business closures, restrictions on public gatherings, the establishment of temperature checkpoints, mandated isolation, and enhanced cleaning and disinfection procedures. This provision does not mention specific diseases but is applicable to all infectious/parasitic disease outbreaks at the discretion of the Chief Sanitary Doctors at the national and regional levels. [1]

Kazakhstan has implemented certain NPIs in response to the COVID-19 pandemic. On March 17, Kazakhstan's first lockdowns were introduced in Almaty and Nur-Sultan (the country's two largest cities). [2] These lockdowns entailed NPIs such as the establishment of quarantine zones to restrict the flow of people and restrictions on the operations of public transport. On March 30, all businesses and organizations in these two cities were ordered to close, with the exception of certain essential businesses (central government offices, pharmacies, grocery stores, etc). [3] At the end of March, quarantines were implemented in a number of smaller cities across the country. [4]

In May, the Chief Sanitary Doctor of Kazakhstan instituted a number of NPIs to prevent the spread of COVID-19 in the country's largest urban areas. For example, masks and social distancing in public spaces were mandated for all citizens of Almaty, Nur-Sultan, and Shymkent, and a number of non-essential businesses were permitted to open under the condition that they follow certain sanitary guidelines. The Government of Kazakhstan has established a separate set of reopening guidelines and sanitary requirements for each industry. [5]

- [1] Government of Kazakhstan. July 2020. "On Public Health and the Healthcare System" ("О здоровье народа и системе здравоохранения"). [https://online.zakon.kz/document/?doc_id=34464437]. Accessed 8 August 2020.
- [2] Prime Minister of Kazakhstan. 17 March 2020. "State Emergency Commission of the President of Kazakhstan institutes quarantine in Nur-Sultan and Almaty effective 19 March 2020" ("Госкомиссия по обеспечению режима ЧП при Президенте РК ввела режим карантина в городах Нур-Султан и Алматы с 19 марта т.г."). [<http://www.primeminister.kz/ru/news/goskomissiya-po-obespecheniyu-rezhima-chp-pri-prezidente-rk-vvela-rezhim-karantina-v-gorodah-nur-sultan-i-almaty-s-19-marta-tg-172930>]. Accessed 8 August 2020.
- [3] Prime Minister of Kazakhstan. 27 March 2020. "Enterprises and organizations to cease operations 30 March through 5 April 2020 in Nur-Sultan and Almaty" ("С 30 марта по 5 апреля т.г. в Нур-Султане и Алматы будет приостановлена деятельность предприятий и организаций"). [<https://primeminister.kz/ru/news/s-30-marta-po-5-aprelya-tg-v-nur-sultane-i-almaty-budet-priostanovlena-deyatelnost-predpriyatij-i-organizacij-2725915>]. Accessed 8 August 2020.
- [4] Tengrinews.kz. 30 March 2020. "Six Kazakh cities placed under quarantine, state of emergency introduced in Aktau" ("Шесть городов Казахстана закрыли на карантин, в Актау ввели особый режим"). [https://tengrinews.kz/kazakhstan_news/shest-gorodov-kazahstana-zakryili-karantin-aktau-vveli-osobyj-rezhim]. Accessed 8 August 2020.
- [5] Chief Sanitary Doctor of the Republic of Kazakhstan. 27 July 2020. "On the further strengthening of measures to prevent the spread of the coronavirus disease in the population of the Republic of Kazakhstan" ("О дальнейшем усилении мер по предупреждению заболеваний коронавирусной инфекцией среди населения Республики Казахстан"). [http://online.zakon.kz/Document/?doc_id=37566604]. Accessed 8 August 2020.

3.2 EXERCISING RESPONSE PLANS

3.2.1 Activating response plans

3.2.1a

Does the country meet one of the following criteria?

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

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

Current Year Score: 1

Kazakhstan's emergency response plan has been activated within the last year, and the country has conducted a national-level threat-focused exercise.

The law "On Public Health and Healthcare," which went into effect in June 2020, establishes that certain restrictive measures should be implemented in the event of an epidemic outbreak. Specific restrictive measures mentioned in the law include border closures, business closures, restrictions on public gatherings, the establishment of temperature checkpoints, mandated isolation, and enhanced cleaning and disinfection procedures. The law states that the Chief Sanitary Doctors at the national and regional levels are responsible for determining the necessity of such measures in the event of an outbreak. [1]

In accordance with this law, the Chief Sanitary Doctor of Kazakhstan instituted a number of measures in order to prevent the spread of COVID-19 in the country's largest urban areas in May 2020. For example, masks and social distancing in public spaces were mandated for all citizens of Almaty, Nur-Sultan, and Shymkent, and a number of non-essential businesses were

permitted to open under the condition that they follow certain sanitary guidelines, with the possibility of being closed again if COVID-19 infection rates increase. The Government of Kazakhstan has established a separate set of reopening guidelines and sanitary requirements for each industry. [2]

Additionally, Kazakhstan and Kyrgyzstan conducted a World Health Organization-sponsored cross-border preparedness exercise in February 2020. [3]

[1] Government of Kazakhstan. July 2020. "On Public Health and the Healthcare System" ("О здоровье народа и системе здравоохранения"). [https://online.zakon.kz/document/?doc_id=34464437]. Accessed 8 August 2020.

[2] Chief Sanitary Doctor of the Republic of Kazakhstan. 27 July 2020. "On the further strengthening of measures to prevent the spread of the coronavirus disease in the population of the Republic of Kazakhstan" ("О дальнейшем усилении мер по предупреждению заболеваний коронавирусной инфекцией среди населения Республики Казахстан").

[http://online.zakon.kz/Document/?doc_id=37566604]. Accessed 8 August 2020.

[3] World Health Organization. "Kazakhstan TTX Feb.2020". [<https://extranet.who.int/sph/calendar>]. Accessed 8 August 2020.

3.2.1b

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

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

Current Year Score: 0

There is no evidence that Kazakhstan has identified a list of gaps and best practices in response or developed a plan to improve response capabilities.

Kazakhstan and Kyrgyzstan conducted a cross-border preparedness threat-focused exercise in February 2020, but no evidence of an report identifying gaps, best practices, or plans to improve response capabilities could be found on the website of the World Health Organization or the websites of the Ministry of Agriculture, the Committee for Emergency Situations, or the Ministry of Health [1, 2, 3, 4, 5].

[1] World Health Organization. "Kazakhstan TTX Feb.2020". [<https://extranet.who.int/sph/calendar>]. Accessed 8 August 2020.

[2] World Health Organization. "After Action Review". [<https://extranet.who.int/sph/after-action-review>]. 8 August 2020.

[3] Ministry of Health of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/dsm?lang=ru>]. Accessed 7 August 2020.

[4] Committee for Emergency Situations of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/emer/>]. Accessed 5 August 2020.

[5] Ministry of Agriculture of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/moa>]. Accessed 8 August 2020.

3.2.2 Private sector engagement in exercises

3.2.2a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence that Kazakhstan has undergone a national-level biological threat-focused exercise that included private sector representatives over the past year. Kazakhstan and Kyrgyzstan conducted a cross-border preparedness threat-focused exercise in February 2020, but the details of exercise are not public and it is not clear whether it included representatives of the private sector. No further evidence could be found on the website of the World Health Organization or the websites of the Ministry of Agriculture, the Committee for Emergency Situations, or the Ministry of Health [1, 2, 3, 4, 5].

[1] World Health Organization. "Kazakhstan TTX Feb.2020". [<https://extranet.who.int/sph/calendar>]. Accessed 8 August 2020.

[2] World Health Organization. "Simulation Exercise". [<https://extranet.who.int/sph/simulation-exercise>]. Accessed 8 August 2020.

[3] Ministry of Health of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/dsm?lang=ru>]. Accessed 7 August 2020.

[4] Committee for Emergency Situations of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/emer/>]. Accessed 5 August 2020.

[5] Ministry of Agriculture of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/moa>]. Accessed 8 August 2020.

3.3 EMERGENCY RESPONSE OPERATION

3.3.1 Emergency response operation

3.3.1a

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

Yes = 1 , No = 0

Current Year Score: 1

There is publicly available evidence that Kazakhstan has a dedicated public health emergency operations center.

Kazakhstan's Operative Center for Emergency Public Health Situations was established in April 2019 with the goal of ensuring "timely responses to emergency situations in the sphere of public health." [1] The Center is part of the Kazakhstan's Ministry of Health (specifically, the National Center for Public Health) and was founded with the support of the Centers for Disease Control (CDC). [2] The Center has played the primary role in coordinating Kazakhstan's response to COVID-19. [3]

[1] National Center for Public Health of the Republic of Kazakhstan. 12 April 2019. "Operative Center for Emergency Public Health Situations launched within the Ministry of Health of the Republic of Kazakhstan" ("На базе НЦОЗ создан оперативный центр по ЧС в области общественного здравоохранения министерства здравоохранения РК"). [<https://hls.kz/archives/17446>]. Accessed 6 March 2021.

[2] Centers for Disease Control and Prevention. "Global Health - Central Asia". [<https://www.cdc.gov/globalhealth/countries/central-asia/index.html>]. Accessed 8 August 2020.

[3] Website of the President of the Republic of Kazakhstan. 21 March 2020. "Kassym-Zhomart Tokaev visits Operative Center for the coordination and monitoring of emergency situations" ("Касым-Жомарт Токаев посетил Оперативный центр по координации и мониторингу чрезвычайных ситуаций"). [https://www.akorda.kz/ru/events/astana_kazakhstan/visits_to_objects/kasym-zhomart-tokaev-posetil-operativnyi-centr-po

koordinacii-i-monitoringu-chrezvychainyh-situacii]. Accessed 8 August 2020.

3.3.1b

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

Yes = 1 , No = 0

Current Year Score: 0

There is insufficient evidence that Kazakhstan's emergency operations center conducts a public health emergency drill at least once per year, or that the emergency operations center is required to do so.

Kazakhstan's Operative Center for Emergency Public Health Situations was established in April 2019 with the goal of ensuring "timely responses to emergency situations in the sphere of public health." [1] The Center is part of the country's health ministry and was founded with the support of the Centers for Disease Control (CDC). [2] The Operative Center conducted a tabletop exercise shortly after its founding in April 2019 that simulated the arrival of a passenger with ebola to an airport in Kazakhstan; however, there is no evidence of a requirement for the Center to conduct annual public health emergency drills or that it has conducted an exercise since 2019. [1]

No evidence that the Operative Center has conducted further public health emergency drills since April 2019 was found on the websites of the Ministry of Health of Kazakhstan, the National Center for Public Health (the department of the Ministry of Health to which the Center belongs), or the Committee for Emergency Situations [3, 4, 5].

[1] National Center for Public Health of the Republic of Kazakhstan. 12 April 2019. "Operative Center for Emergency Public Health Situations launched within the Ministry of Health of the Republic of Kazakhstan" ("На базе НЦОЗ создан оперативный центр по ЧС в области общественного здравоохранения министерства здравоохранения РК"). [https://hls.kz/archives/17446]. Accessed 8 August 2020.

[2] Centers for Disease Control and Prevention. "Global Health - Central Asia". [https://www.cdc.gov/globalhealth/countries/central-asia/index.html]. Accessed 8 August 2020.

[3] Committee for Emergency Situations of the Republic of Kazakhstan. [https://www.gov.kz/memleket/entities/emer/]. Accessed 5 August 2020.

[4] Ministry of Health of the Republic of Kazakhstan. [https://www.gov.kz/memleket/entities/dsm?lang=ru]. Accessed 7 August 2020.

[5] National Center for Public Health. [https://hls.kz/]. Accessed 5 August 2020.

3.3.1c

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence that Kazakhstan's emergency operations center has conducted a coordinated emergency response or emergency response exercise activated within 120 minutes of the identification of the public health scenario within the last year.

Kazakhstan's Operative Center for Emergency Public Health Situations was established in 2019 with the goal of ensuring "timely responses to emergency situations in the sphere of public health." [1] The Center is part of the country's health ministry and was founded with the support of the Centers for Disease Control (CDC). [2] However, there is no evidence on the websites of the Ministry of Health of Kazakhstan, the National Center for Public Health (the department of the Ministry of Health to which the Center belongs), or the Committee for Emergency Situations that the Center has conducted such an exercise. [3, 4, 5] Kazakhstan also has not conducted Joint External Evaluation (JEE) mission over the past year. [6]

However, the Operative Center for Emergency Public Health Situations did conduct a tabletop exercise shortly after its founding that simulated the arrival of a passenger with ebola to an airport in Kazakhstan. [1]

[1] National Center for Public Health of the Republic of Kazakhstan. 12 April 2019. "Operative Center for Emergency Public Health Situations launched within the Ministry of Health of the Republic of Kazakhstan" ("На базе НЦОЗ создан оперативный центр по ЧС в области общественного здравоохранения министерства здравоохранения РК"). [https://hls.kz/archives/17446]. Accessed 8 August 2020.

[2] Centers for Disease Control and Prevention. "Global Health - Central Asia". [https://www.cdc.gov/globalhealth/countries/central-asia/index.html]. Accessed 8 August 2020.

[3] Ministry of Health of the Republic of Kazakhstan. [https://www.gov.kz/memleket/entities/dsm?lang=ru]. Accessed 7 August 2020.

[4] National Center for Public Health. [https://hls.kz/]. Accessed 5 August 2020.

[5] Committee for Emergency Situations of the Republic of Kazakhstan. [https://www.gov.kz/memleket/entities/emer/]. Accessed 5 August 2020.

[6] World Health Organization. "Strengthening health security by implementing the International Health Regulations (2005)". [https://www-who-int.proxy.library.upenn.edu/ihr/procedures/mission-reports-europe/en/]. Accessed 8 August 2020.

3.4 LINKING PUBLIC HEALTH AND SECURITY AUTHORITIES

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

3.4.1a

Does the country meet one of the following criteria?

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

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

Current Year Score: 0

There is no public evidence that public health and security authorities in Kazakhstan have carried out an exercise to respond to a potential deliberate biological event, nor are there any publicly available standard operating procedures, guidelines, memoranda of understanding or other agreements between the public health and security authorities to respond to a potential deliberate biological event.

Kazakhstan's Antiterrorist Center is a permanent advisory body established under the National Security Committee to coordinate counterterrorism in the country and to ensure the consistency of actions of state bodies and local governments of

the Republic of Kazakhstan in this area. The Chairman of the National Security Committee is the head of the center and the Deputy Chairman of the National Security Committee and the Minister of Health are both listed among its members. [1]

While the Antiterrorist Center does conduct drills, there is no publicly available evidence that these have taken place with the participation of public health authorities. [2] There is no further information on relevant exercises or procedures on the websites of the National Security Committee, the Ministry of Health, the Ministry for Emergency Situations, or the Center for Emergency Situations and Disaster Risk Reduction (a regional intergovernmental security agency in Central Asia). [3, 4, 5, 6]

[1] Antiterrorist Center of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/antiterrosticheskiy-centr/about?lang=ru>]. Accessed 5 August 2020.

[2] Kapital. 17 October 2018. "Antiterrorist drill conducted at Almaty airport" ("В Алматинском аэропорту прошли антитеррористические учения"). [<https://kapital.kz/gosudarstvo/72948/v-almatinskom-aeroportu-proshli-antiterrosticheskiye-ucheniya.html>]. Accessed 8 August 2020.

[3] Ministry of Health of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/dsm?lang=ru>]. Accessed 7 August 2020.

[4] Committee for Emergency Situations of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/emer/>]. Accessed 5 August 2020.

[5] Center for Emergency Situations and Disaster Risk Reduction. [<https://cesdrr.org/>] Accessed 8 August 2020.

[6] National Security Committee of the Republic of Kazakhstan. [<http://knb.gov.kz>]. Accessed 8 August 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

Kazakhstan's risk communication plan does not outline how messages should reach sectors with different communications needs.

One of the main strategies that deal with public health emergency protocols, "Plan for the Liquidation of Emergencies of Global and Regional Scale" (approved in 2017 and last updated in May 2019), covers various aspects of risk communication and explicitly applies to epidemic, epizootic and epiphytotic outbreaks. While it specifies which governmental agencies should be responsible for each aspect of risk communication, it does not outline how this information should reach different segments of the population. [1] No additional evidence could be found on the website of the Ministry of Health of Kazakhstan regarding how risk communications should reach sectors with different communications needs. [2]

In May 2020, the United States Agency for International Development (USAID) contributed USD 500,000 to support Kazakhstan's risk communication efforts in light of the COVID-19 outbreak. A USAID press release states that this funding will be used in part to prevent at-risk communities (children with disabilities, elderly people in residential care, pregnant women, people with poor access to water and sanitation facilities) from being exposed to misinformation about the virus. [3]

[1] Government of Kazakhstan. 20 May 2019. "On approval of action plans for emergency response of global and regional scale" ("Об утверждении планов действий по ликвидации чрезвычайных ситуаций глобального и регионального масштабов").

[https://tengrinews.kz/zakon/pravitelstvo_respubliki_kazakhstan_premier_ministr_rk/natsionalnaya_bezопасnost/id-P1900000357/]. Accessed 8 August 2020.

[2] Ministry of Health of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/dsm?lang=ru>]. Accessed 25 August 2020.

[3] United States Agency for International Development (USAID). 11 May 2020. "The U.S. Provides Additional Funding for Risk Communication and Infection Prevention and Control to Support Kazakhstan's Response to COVID-19."

[<https://www.usaid.gov/kazakhstan/press-releases/may-11-2020-us-provides-additional-funding-risk-communication-infection-prevention-covid-19>].

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

Kazakhstan has a risk communication plan for use during a public health emergency.

One of the main strategies that deal with public health emergency protocols, "Plan for the Liquidation of Emergencies of Global and Regional Scale" (approved in 2017 and last updated in May 2019), covers various aspects of risk communication. According to this document, the Ministry of Internal Affairs, the Ministry of Information and Social Development, and the Ministry of Digital Development, Innovation and Aerospace are tasked with "coordinating efforts to inform the population about the developing situation." This plan is explicitly applicable to epidemic, epizootic, and epiphytotic outbreaks. The Ministry of Internal Affairs and the Ministry of Foreign Affairs are responsible for communicating the situation to neighboring states and international organizations. Specifically in the case of animal-borne disease outbreaks, the Ministry of Health and the Ministry of Agriculture are responsible for communicating with the public. [1]

In May 2020, the United States Agency for International Development (USAID) contributed USD 500,000 to support Kazakhstan's risk communication efforts in light of the COVID-19 outbreak. [2]

[1] Government of Kazakhstan. 20 May 2019. "On approval of action plans for emergency response of global and regional scale" ("Об утверждении планов действий по ликвидации чрезвычайных ситуаций глобального и регионального масштабов").

[https://tengrinews.kz/zakon/pravitelstvo_respubliki_kazakhstan_premier_ministr_rk/natsionalnaya_bezопасnost/id-P1900000357/]. Accessed 8 August 2020.

[2] United States Agency for International Development (USAID). 11 May 2020. "The U.S. Provides Additional Funding for Risk Communication and Infection Prevention and Control to Support Kazakhstan's Response to COVID-19."

[<https://www.usaid.gov/kazakhstan/press-releases/may-11-2020-us-provides-additional-funding-risk-communication-infection-prevention-covid-19>].

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

Kazakhstan's risk communication plan does not designate a specific position within the government to serve as the primary spokesperson to the public during a public health emergency.

Kazakhstan's "Plan for the Liquidation of Emergencies of Global and Regional Scale" (approved in 2017 and last updated in May 2019), covers various aspects of risk communication and explicitly applies to epidemic, epizootic and epiphytotic outbreaks. While it specifies which governmental agencies should be responsible for each aspect of risk communication, it does not designate specific individuals within each of these agencies. [1]

The law "On Public Health and the Healthcare System," which came into effect in July 2020, states that the Chief Sanitary Doctor of Kazakhstan is responsible for enacting quarantine restrictions via a decree which must be published online and in mass media. It does not, however, designate the Chief Sanitary Doctor as the primary spokesperson. [2] No further information could be found on the websites of the Ministry of Health, the Committee for Emergency Situations, or the National Center for Public Health. [3, 4, 5]

[1] Government of Kazakhstan. 20 May 2019. "On approval of action plans for emergency response of global and regional scale" ("Об утверждении планов действий по ликвидации чрезвычайных ситуаций глобального и регионального масштабов").

[https://tengrinews.kz/zakon/pravitelstvo_respubliki_kazahstan_premier_ministr_rk/natsionalnaya_bezопасnost/id-P1900000357/]. Accessed 11 August 2020.

[2] Government of Kazakhstan. July 2020. "On Public Health and the Healthcare System" ("О здоровье народа и системе здравоохранения"). [https://online.zakon.kz/document/?doc_id=34464437]. Accessed 8 August 2020.

[3] Ministry of Health of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/dsm?lang=ru>]. Accessed 7 August 2020.

[4] Center for Emergency Situations and Disaster Risk Reduction. [<https://cesdrr.org/>] Accessed 8 August 2020.

[5] National Center for Public Health. [<https://hls.kz>]. Accessed 11 August 2020.

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

Kazakhstan's public health system has actively shared information about ongoing public health concerns via online platforms during the past year.

Kazakhstan's Ministry of Health uses Facebook to provide regular updates about the COVID-19 situation in the country, including national and regional statistics as well as general advice on preventing the spread of the virus. The Ministry updates its Facebook page several times a week. [1] There is also a frequently-updated news portal on the Ministry of Health's website. [2] The Ministry of Information and Social Development also operates a COVID-19 portal (coronavirus2020.kz) with a section devoted to "fakes and fact-checking" that aggregates misinformation about the virus. [3, 4]

The Ministry of Health was also active in sharing updates and information on its social media channels and on its website prior to the COVID-19 outbreak. Information shared prior to COVID-19 on the Ministry of Health's website included, for example, reminders about the importance of vaccinations, data and information about the 2018 meningitis outbreak in Kazakhstan, preparedness tips for influenza season, etc. [1, 2]

[1] Ministry of Health of the Republic of Kazakhstan (Facebook). [<https://www.facebook.com/MinzdravRK>]. Accessed 8 August 2020.

[2] Ministry of Health of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/dsm?lang=ru>]. Accessed 7 August 2020.

[3] Ministry of Information and Social Development. "Coronavirus situation" ("Ситуация с коронавирусом"). [<https://www.coronavirus2020.kz>]. 8 August 2020.

[3] Kapital. 20 March 2020. "Site coronavirus2020.kz launched" ("Запущен сайт coronavirus2020.kz"). [<https://kapital.kz/gosudarstvo/85607/zapushchen-sayt-coronavirus2020-kz.html>]. Accessed 8 August 2020.

3.5.2b

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

No = 1, Yes = 0

Current Year Score: 1

There is no evidence that senior leaders in Kazakhstan have shared misinformation related to infectious diseases over the past two years.

The website factcheck.kz, a project run by the International Center of Journalism MediaNet with the support of the Soros-Kazakhstan Foundation, aggregates stories related to misinformation and disinformation. While a number of public health-related rumors have circulated in Kazakhstan (particularly in the wake of COVID-19), there is no evidence that any of these have originated from senior government officials. [1]

No further evidence could be found on the websites of news outlets Eurasianet or Radio Free Europe/Radio Liberty or on those of large news outlets in Kazakhstan. [2, 3, 4, 5].

[1] Factcheck.kz. [<https://factcheck.kz>]. 8 August 2020.

[2] Eurasianet. [<https://eurasianet.org>]. Accessed 8 August 2020.

[3] Radio Free Europe/Radio Liberty. [<https://www.rferl.org>]. Accessed 8 August 2020.

[4] Tengrinews.kz. [<https://tengrinews.kz>]. Accessed 8 August 2020.

[5] Zakon.kz [<https://www.zakon.kz>]. Accessed 8 August 2020.

3.6 ACCESS TO COMMUNICATIONS INFRASTRUCTURE

3.6.1 Internet users

3.6.1a

Percentage of households with Internet

Input number

Current Year Score: 81.88

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: 138.58

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: 4.0

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: 4.0

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

Kazakhstan has issued a restriction on the export of medical goods in the past year, and there is no evidence that this took place with international/bilateral support.

In February 2020, amid coronavirus-related fears the Ministry of Health of Kazakhstan introduced a ban on the export of personal protective equipment (respirators, protective goggles and suits, medical masks, and gloves). The measure was explicitly instituted "in light of reports about an outbreak of novel coronavirus (2019-nCov) in the People's Republic of China."

[1]

No evidence could be found on the websites of the Ministry of the National Economy, the Ministry of Health or in national/international media that this took place with international or bilateral support [2, 3, 4, 5, 6].

[1] Committee for the Quality Control and Safety of Goods and Services of the Ministry of Health of the Republic of Kazakhstan. 20 February 2020. "On the prohibition of the issuance of export licenses for personal protective equipment" ("О запрете выдачи разрешений на вывоз средств индивидуальной защиты"). [<https://cdb.kz/sistema/pravovaya-baza/o-zaprete-vydachi-razresheniy-na-vyvoz-sredstv-individualnoy-zashchity/>]. Accessed 25 August 2020.

[2] Ministry of the National Economy of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/economy?lang=ru>]. Accessed 25 August 2020.

[3] Ministry of Health of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/dsm?lang=ru>]. Accessed 7 August 2020.

[4] Radio Free Europe/Radio Liberty. [<https://www.rferl.org>]. Accessed 8 August 2020.

[5] Tengrinews.kz. [<https://tengrinews.kz>]. Accessed 8 August 2020.

[6] Zakon.kz [<https://www.zakon.kz>]. Accessed 8 August 2020.

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

Kazakhstan has issued restrictions on the export of non-medical goods due to an infectious disease outbreak in the past year, and there is no evidence that this took place with international/bilateral support. In March 2020, the Ministry of Agriculture of Kazakhstan issued a decree banning the export of the following goods in connection with the nationwide declaration of emergency: buckwheat, flour, white sugar, potatoes, carrots, beets, turnips, cabbage, onions, sunflower seeds, and

sunflower oil. [1] In April 2020, the Ministry issued a new decree that permitted the export of certain goods from this list (flour, sunflower oil) but instituted quotas. [2] Finally, at the end of May 2020, the Ministry of Agriculture issued a decree that removed all of the aforementioned restrictions on the export of non-medical goods, which went into effect on June 1. [3] No evidence could be found on the websites of the Ministry of Agriculture, the Ministry of Foreign Affairs, the Ministry of Health or in national/international media that these measures were adopted with international or bilateral support [4, 5, 6, 7, 8].

[1] Ministry of Agriculture of Kazakhstan. 22 March 2020. "On the prohibition of the export of certain goods from the territory of the Republic of Kazakhstan to other countries" ("О введении запрета на вывоз отдельных товаров с территории Республики Казахстан в третьи страны"). [https://online.zakon.kz/m/Document/?doc_id=35410193]. Accessed 12 August 2020.

[2] Ministry of Agriculture of Kazakhstan. 2 April 2020. "On the export of certain goods from the Republic of Kazakhstan" ("О некоторых вопросах вывоза отдельных товаров с территории Республики Казахстан"). [https://online.zakon.kz/m/Document/?doc_id=39670123]. Accessed 12 August 2020.

[3] Ministry of Agriculture of Kazakhstan. 26 May 2020. "On the cancelation of certain decrees of the Ministry of Agriculture of the Republic of Kazakhstan" ("О признании утратившими силу некоторых приказов Министра сельского хозяйства Республики Казахстан"). [https://online.zakon.kz/m/Document/?doc_id=35012490]. Accessed 12 August 2020.

[4] Ministry of Agriculture of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/moa?lang=ru>]. Accessed 25 August 2020.

[5] Ministry of Health of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/dsm?lang=ru>]. Accessed 7 August 2020.

[6] Radio Free Europe/Radio Liberty. [<https://www.rferl.org>]. Accessed 8 August 2020.

[7] Tengrinews.kz. [<https://tengrinews.kz>]. Accessed 8 August 2020.

[8] Zakon.kz [<https://www.zakon.kz>]. Accessed 8 August 2020.

[9] Ministry of Foreign Affairs of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/mfa?lang=ru>]. Accessed 25 August 2020.

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

Kazakhstan has implemented bans on travelers arriving from abroad due to an infectious disease outbreak over the past year, and there is no evidence that this took place with international or bilateral support.

At the beginning of March 2020, Kazakhstan implemented a ban on travelers from China, Iran, and South Korea amid COVID-19 fears. [1] Then on 15 March, the government instituted a state of emergency, which "suspends entry onto the territory of the Republic of Kazakhstan, as well as departure from its territory, by any form of transportation, with the exception of Kazakhstani or foreign diplomatic personnel, as well as the members of delegations from international organizations invited into Kazakhstan by the Ministry of Foreign Affairs of the Republic of Kazakhstan." [2] The state of emergency was originally meant to last until 15 April, but it was extended to 11 May. [3] Following the expiration of the state of emergency, Kazakhstan's National Security Committee reaffirmed the ban on most foreign travelers but allowed, for example, citizens of Kazakhstan who had previously left the country to return and foreign citizens with relatives in the country. [4]

No evidence could be found on the websites of the Ministry of Foreign Affairs, the Ministry of Health or in national/international media that this took place with international or bilateral support [5, 6, 7, 8, 9].

- [1] Interfax. 5 March 2020. "Kazakhstan suspends entry by citizens of South Korea, China and Iran effective 8 March" ("Казахстан с 8 марта запрещает въезд в страну гражданам Южной Кореи, Китая и Ирана - замминистра индустрии"). [<https://interfax.az/view/794522>]. Accessed 8 August 2020.
- [2] Prime Minister of Kazakhstan. 15 March 2020. "Head of state institutes state of emergency in Kazakhstan" ("Глава государства ввел чрезвычайное положение в Казахстане"). [<https://primeminister.kz/ru/glava-gosudarstva-k-tokaev-vvel-chrezvychaynoe-polozhenie-v-kazahstane-152329>]. Accessed 8 August 2020.
- [3] Interfax. 27 April 2020. "State of emergency in Kazakhstan extended to 11 May" ("В Казахстане режим ЧП по коронавирусу продлили до 11 мая"). [<https://www.interfax.ru/world/706177>]. Accessed 8 August 2020.
- [4] National Security Committee of the Republic of Kazakhstan. 15 May 2020. "Procedures for crossing the state border of the Republic of Kazakhstan after 11 May 2020 during the period of quarantine" ("Порядок пересечения Государственной границы Республики Казахстан с 11 мая 2020 года на период карантинных ограничений"). [<http://knb.gov.kz/ru/news/poryadok-peresecheniya-gosudarstvennoy-granicy-respubliki-kazahstan-s-11-maya-2020-goda-na>]. Accessed 8 August 2020.
- [5] Ministry of Foreign Affairs of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/mfa?lang=ru>]. Accessed 25 August 2020.
- [6] Ministry of Health of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/dsm?lang=ru>]. Accessed 7 August 2020.
- [7] Radio Free Europe/Radio Liberty. [<https://www.rferl.org>]. Accessed 8 August 2020.
- [8] Tengrinews.kz. [<https://tengrinews.kz>]. Accessed 8 August 2020.
- [9] Zakon.kz [<https://www.zakon.kz>]. Accessed 8 August 2020.

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

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

4.1.1 Available human resources for the broader healthcare system

4.1.1a

Doctors per 100,000 people

Input number

Current Year Score: 398

2014

WHO; national sources

4.1.1b

Nurses and midwives per 100,000 people

Input number

Current Year Score: 729.36

2015

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: 1

There is a public 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.

In 2016, as part of Kazakhstan's "Strategic Development Plan through 2020," a program called "Densaulyk" was implemented to address shortcomings in the healthcare system. The program documentation addresses several questions related to the public health workforce, including inadequate access to medical personnel in rural areas, inadequate training and on-the-job resources for medical personnel, and a deficit/under-utilization of primary care personnel. Some of the measures proposed as part of this strategy include the standardization of medical education in the country, improved social guarantees for medical workers (with the goal of making the sphere more attractive), and the further development of the National Observatory for Human Resources in Healthcare, which is responsible for planning and forecasting in the area of the healthcare workforce. [1, 2] In late 2019, the Government of Kazakhstan convened to review the status of the Densaulyk program and signed into law the "State Program for the Development of Healthcare in Kazakhstan 2020-2025." This new strategy addresses the public health workforce disparity between urban and rural areas and points to an across-the-board shortage of doctors, particularly in areas such as anesthesiology, psychiatry, primary care, midwifery, gynecology, and pediatrics. Some of the new measures proposed in this strategy include the creation of a system for monitoring workforce capacity in the healthcare sphere (in addition to the existing National Observatory for Human Resources in Healthcare), increased salaries and improved social benefits for medical workers, and improved and standardized training. [3, 4]

[1] Government of Kazakhstan. 2016. "State Program for the development of healthcare in the Republic of Kazakhstan: 'Densaulyk' 2016-2020" ("Государственная программа развития здравоохранения Республики Казахстан «Денсаулық» на 2016-2020 годы"). [https://kaznmu.kz/rus/wp-content/uploads/2016/03/densaulyk_2016-2020_0.pdf]. Accessed 8 August 2020.

[2] Republican Center for Healthcare Development. "Observatory for Human Resources in Healthcare" ("Обсерватория кадровых ресурсов здравоохранения"). [<http://www.rcrz.kz/index.php/ru/observatoriya-kadrovyykh-resurovov-zdravookhraneniya>]. Accessed 8 August 2020.

[3] Prime Minister of Kazakhstan. 19 December 2019. "Government confirms state healthcare development program for 2020-2025" ("Правительство утвердило Госпрограмму развития здравоохранения на 2020-2025 годы").

[<https://primeminister.kz/ru/news/pravitel-stvo-utverdilo-gosprogrammu-razvitiy-zdravookhraneniya-na-2020-2025-gody>].

Accessed 8 August 2020.

[4] Government of Kazakhstan. 26 December 2019. "Confirmation of the State Program on Healthcare Development in the Republic of Kazakhstan 2020-2025" ("Об утверждении Государственной программы развития здравоохранения Республики Казахстан на 2020 – 2025 годы").

[https://tengrinews.kz/zakon/pravitelstvo_respubliki_kazahstan_premier_ministr_rk/zdravoohranenie/id-P1900000982]. Accessed 8 August 2020.

4.1.2 Facilities capacity

4.1.2a

Hospital beds per 100,000 people

Input number

Current Year Score: 606

2014

WHO/World Bank; national sources

4.1.2b

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

Yes = 1 , No = 0

Current Year Score: 0

There is insufficient evidence that Kazakhstan 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 law "On Public Health and Healthcare," effective as of July 2020, states that individuals with infectious/parasitic diseases or who are carriers of such diseases are subject to involuntary isolation and/or treatment, as are their close contacts (if necessary). [1] There is evidence that isolation facilities are available in various hospitals in Kazakhstan, including Nur-Sultan Hospital Number 1 and the City Hospital for Clinical Infections in Almaty. [2, 3] Additionally, in February 2020, it was announced that all outpatient clinics in the capital city of Almaty would be outfitted with facilities to isolate patients with infectious diseases. [4] In March 2020, the Chief Sanitary Doctor of Kazakhstan published requirements for the construction of isolation facilities for patients with COVID-19. These guidelines do not require isolation facilities to be located in medical facilities. [5] However, there is insufficient evidence that any of those facilities is indeed an advanced isolation facility for highly communicable diseases.

[1] Government of Kazakhstan. July 2020. "On Public Health and the Healthcare System" ("О здоровье народа и системе здравоохранения"). [https://online.zakon.kz/document/?doc_id=34464437]. Accessed 8 August 2020.

[2] Informburo.kz. 20 June 2020. "Chief doctor of Nur-Sultan Hospital No. 1 demonstrates intake of patients with COVID-19 symptoms" ("В Нур-Султане главврач больницы №1 показал, как принимают пациентов с симптомами Covid-19"). [<https://informburo.kz/novosti/v-nur-sultane-glavvrach-bolnicy-1-pokazal-kak-prinimayut-pacientov-s-simptomami-sovid-19.html>]. Accessed 8 August 2020.

[3] I.S. Zhekenova City Infectious Diseases Hospital. "Division 5" ("5 отделение"). [<https://gkib.kz/ru/content/5-otdelenie>]. Accessed 8 August 2020.

[4] Tengrinews. 2 February 2020. "Isolation facilities for patients with infectious diseases to appear in all Almaty clinics" ("Изоляторы для пациентов с инфекционными заболеваниями появятся в поликлиниках в Алматы"). [https://tengrinews.kz/kazakhstan_news/izolyatoryi-patsientov-infektsionnyimi-zabolevaniyami-390318]. Accessed 8 August 2020.

[5] Chief Sanitary Doctor of the Republic of Kazakhstan. 12 March 2020. "On the strengthening of measures to prevent the spread of coronavirus infection in the Republic of Kazakhstan" ("Об усилении мер по недопущению распространения коронавирусной инфекции в Республике Казахстан"). [https://online.zakon.kz/document/?doc_id=39593175]. Accessed 8 August 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

Kazakhstan has demonstrated capacity to expand isolation capacity in response to an infectious disease outbreak in the past two years.

There is evidence that isolation facilities are available in various hospitals in Kazakhstan, including Nur-Sultan Hospital Number 1 and the City Hospital for Clinical Infections in Almaty. [1, 2] Kazakhstan has demonstrated capacity to expand its ability to isolate patients in the wake of COVID-19. In February 2020, it was announced that all outpatient clinics in the capital city of Almaty would be outfitted with facilities to isolate patients with infectious diseases. [3] In April 2020, an infectious disease clinic with 200 beds was erected in the capital Nur-Sultan, and construction was underway for two more such clinics in the cities of Almaty and Shymkent – although it is unclear whether the clinics contained isolation facilities. [4]

No evidence could be found on the websites of the Ministry of Health or the Committee for Emergency Situations regarding a plan to expand isolation capacity in response to an infectious disease outbreak. [5, 6]

[1] Informburo.kz. 20 June 2020. "Chief doctor of Nur-Sultan Hospital No. 1 demonstrates intake of patients with COVID-19 symptoms" ("В Нур-Султане главврач больницы №1 показал, как принимают пациентов с симптомами Covid-19"). [https://informburo.kz/novosti/v-nur-sultane-glavvrach-bolnicy-1-pokazal-kak-prinimayut-pacientov-s-simptomami-sovid-19.html]. Accessed 8 August 2020.

[2] I.S. Zhekenova City Infectious Diseases Hospital. "Division 5" ("5 отделение"). [https://gkib.kz/ru/content/5-otdelenie]. Accessed 8 August 2020.

[3] Tengrinews. 2 February 2020. "Isolation facilities for patients with infectious diseases to appear in all Almaty clinics" ("Изоляторы для пациентов с инфекционными заболеваниями появятся в поликлиниках в Алматы"). [https://tengrinews.kz/kazakhstan_news/izolyatoryi-patsientov-infektsionnyimi-zabolevaniyami-390318]. Accessed 8 August 2020.

[4] TASS. April 2020. "Infectious disease hospital built within 13 days in Nur-Sultan in response to coronavirus" ("В Нур-Султане за 13 дней построили инфекционную больницу в связи с коронавирусом"). [https://tass.ru/obschestvo/8291607]. Accessed 8 March 2021.

[5] Ministry of Health of the Republic of Kazakhstan. [https://www.gov.kz/memleket/entities/dsm?lang=ru]. Accessed 7 August 2020.

[6] Committee for Emergency Situations of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/emer/>]. Accessed 5 August 2020.

4.2 SUPPLY CHAIN FOR HEALTH SYSTEM AND HEALTHCARE WORKERS

4.2.1 Routine health care and laboratory system supply

4.2.1a

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

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

Current Year Score: 1

There is evidence that there is a national procurement protocol in place which can be used by the Ministry of Health in Kazakhstan for the acquisition of both laboratory supplies and medical supplies, but it is not clear whether this protocol also applies to the Ministry of Agriculture.

The protocol is established by the "Rules on the Organization and Conduct of the Procurement of Medical Supplies, Medical Equipment and Pharmaceutical Services," which was signed into law in October 2009 and last updated in August 2020. [1] The supplies covered under this protocol include "any instruments, equipment or devices [...] which are used for medical purposes" as well as goods needed for "the monitoring of an individual's organism" and "the conduct of medical tests." "Procuring entities" covered under this protocol include a variety of government healthcare bodies at the regional and national levels, so it is unclear whether the same protocol also applies to the Ministry of Agriculture. [1, 2] No information on the protocol's application to the Ministry of Agriculture was found on that entity's website. [3]

The "State Program for the Development of Healthcare in Kazakhstan 2020-2025," which came into effect in 2019, aims to increase the use of the internet in the procurement of medical supplies. [4]

[1] Government of Kazakhstan. 30 October 2009. "Rules on the Organization and Conduct of the Procurement of Medical Supplies, Medical Equipment and Pharmaceutical Services" ("Об утверждении Правил организации и проведения закупки лекарственных средств и медицинских изделий, фармацевтических услуг").

[https://online.zakon.kz/Document/?doc_id=30500538#pos=5;-106]. Accessed 6 March 2021.

[2] Government of Kazakhstan. 30 May 2019. "Rules on the Organization and Conduct of the Procurement of Medical Supplies, Medical Equipment and Pharmaceutical Services" ("Об утверждении Правил организации и проведения закупки лекарственных средств и медицинских изделий, фармацевтических услуг").

[<https://primeminister.kz/ru/decisions/30052019-347>]. Accessed 8 August 2020.

[3] Ministry of Agriculture of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/moa>]. Accessed 6 March 2021.

[4] Government of Kazakhstan. 26 December 2019. "Confirmation of the State Program on Healthcare Development in the Republic of Kazakhstan 2020-2025" ("Об утверждении Государственной программы развития здравоохранения Республики Казахстан на 2020 – 2025 годы").

[https://tengrinews.kz/zakon/pravitelstvo_respubliki_kazahstan_premier_ministr_rk/zdravoohranenie/id-P1900000982]. Accessed 8 August 2020.

4.2.2 Stockpiling for emergencies

4.2.2a

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

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

Current Year Score: 1

Kazakhstan has a stockpile of medical supplies for national use during a public health emergency, but there is limited information about what it contains.

The "Rules on the Operation, Transportation, Use and Replenishment of Material Goods in the Operational Reserve," signed into law in 2014, established an "operational reserve" that covers stocks of material and equipment, including medicines and medicinal products, to be used during emergencies. The operational reserve is managed by the Ministry of Internal Affairs through the Committee for Emergency Situations and the National Guard. The Ministry of Internal Affairs is responsible for timely replenishment of the reserve and for taking inventory of the reserve, both in terms of quantity and quality. Stocks are replenished from the national budget as they are used. [1] However, this document does not explicitly mention which medical supplies are to be included in the reserve. Moreover, in July 2020, President Tokayev of Kazakhstan criticized the country's lack of a sustainable reserve of medical supplies, which suggests the operational reserve may not be well managed or stocked in practice. [2]

In March 2020, the United States Agency for International Development (USAID) donated 10,000 examination gloves, 10,000 masks, 1,400 isolation gowns and 200 protective goggles to the City Center for Ambulance Services in Nur-Sultan, Kazakhstan to combat COVID-19. [4]

Then in July 2020, the government of Kazakhstan announced that KZT 7.2 million (USD 17,148) would be allocated to form a reserve of personal protective equipment for frontline medical workers in the wake of COVID-19. [3] There is no evidence of any plan to form a permanent reserve on the websites of the Ministry of Health, the Ministry of Internal Affairs, the Committee for Emergency Situations, or the Ministry of Defense. [5, 6, 7, 8]

[1] Government of Kazakhstan. 16 May 2014. "Rules on the Operation, Transportation, Use and Replenishment of Material Goods in the Operational Reserve" ("Об утверждении Правил оперирования, перемещения, использования, пополнения материальных ценностей оперативного резерва уполномоченного органа в сфере гражданской защиты").

[https://tengrinews.kz/zakon/pravitelstvo_respubliki_kazahstan_premier_ministr_rk/natsionalnaya_bezopasnost/id-V1400009508]. Accessed 8 August 2020.

[2] Zonakz.net. 10 July 2020. "Tokaev: It's time to step up the production of many medicines and medical products in Kazakhstan" ("Токаев: Настало время наладить производство многих видов лекарств и медизделий в Казахстане").

[<https://zonakz.net/2020/07/10/tokaev-nastalo-vremya-naladit-proizvodstvo-mnogix-vidov-lekarstv-i-medizdelij-v-kazaxstane>]. Accessed 8 August 2020.

[3] US Agency for International Development (USAID). 17 March 2020. "The United States Supports Kazakhstan's Efforts to Contain the Coronavirus Outbreak". [<https://www.usaid.gov/kazakhstan/press-releases/mar-17-2020-united-states-supports-kazakhstan-efforts-contain-coronavirus>]. Accessed 8 August 2020.

[4] Forbes Kazakhstan. 21 June 2020. "7.2 billion tenge allocated from the budget to buy PPE for frontline workers" ("7,2 млрд тенге выделяют из резерва правительства на СИЗ для работников первой линии").

[https://forbes.kz/news/2020/07/21/newsid_229834]. Accessed 8 August 2020.

[5] Ministry of Health of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/dsm?lang=ru>]. Accessed 7 August 2020.

[6] Committee for Emergency Situations of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/emer/>]. Accessed 5 August 2020.

[7] Ministry of Internal Affairs of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/qriim?lang=en>]. Accessed 8 August 2020.

[8] Ministry of Defense of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/mod>]. Accessed 8 March 2021.

4.2.2b

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

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

Current Year Score: 0

There is no evidence that Kazakhstan maintains a stockpile of laboratory supplies for use during a public health emergency.

The "Rules on the Operation, Transportation, Use and Replenishment of Material Goods in the Operational Reserve," signed into law in 2014, established an "operational reserve," managed by the Ministry of Internal Affairs, that serves as a stockpile of material and equipment, including medicines and medicinal products, to be used during emergencies. There is not enough evidence to conclude that this reserve is required to include laboratory supplies/reagents. [1]

During the COVID-19 outbreak, the Red Crescent of Kazakhstan provided laboratory supplies to the country, including 120,000 swab probing kits and 270 reagent sets to conduct as many as 27,000 COVID-19 tests. [2] It has also been reported that the Bulat Utemuratov Fund, owned by the Kazakhstani philanthropist Bulat Utemuratov, purchased 60,000 tests' worth of reagent sets to test for COVID-19 in the cities of Nur-Sultan and Almaty. [3]

However, no evidence of a permanent stockpile of laboratory supplies/reagents could be found on the websites of the Ministry of Health, the National Security Committee, the Committee for Emergency Situations, or the National Center for Expertise of Medicines and Medical Devices. [4, 5, 6, 7]

[1] Government of Kazakhstan. 16 May 2014. "Rules on the Operation, Transportation, Use and Replenishment of Material Goods in the Operational Reserve" ("Об утверждении Правил оперирования, перемещения, использования, пополнения материальных ценностей оперативного резерва уполномоченного органа в сфере гражданской защиты"). [https://tengrinews.kz/zakon/pravitelstvo_respubliki_kazahstan_premier_ministr_rk/natsionalnaya_bezopasnost/id-V1400009508]. Accessed 8 August 2020.

[2] Forbes Kazakhstan. 6 August 2020. "Red Crescent of Kazakhstan during the COVID-19 outbreak" ("Красный Полумесяц Казахстана в период вспышки COVID-19"). [https://forbes.kz/news/2020/08/06/newsid_230885]. Accessed 8 August 2020.

[3] Informburo.kz. 5 May 2020. "Bulat Utemuratov Fund unveils modular PCR laboratories for COVID-19 testing" ("Фонд Булата Утемуратова развернёт в Казахстане модульные ПЦР-лаборатории для выявления Covid-19"). [<https://informburo.kz/novosti/fond-bulata-utemuratova-razvernuyot-v-kazahstane-modulnye-pcr-laboratorii-106058.html>]. Accessed 8 August 2020.

[4] Ministry of Health of Kazakhstan. [<https://www.gov.kz/memleket/entities/dsm?lang=ru>]. Accessed 8 August 2020.

[5] National Security Committee of Kazakhstan. [<http://knb.gov.kz>]. Accessed 8 August 2020.

[6] Committee for Emergency Situations of Kazakhstan. [<https://www.gov.kz/memleket/entities/emer?>]. Accessed 8 August 2020.

[7] National Center for Expertise of Medicines and Medical Devices. [<https://www.ndda.kz>]. Accessed 8 August 2020.

4.2.2c

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

Yes = 1, No = 0

Current Year Score: 0

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

The "Rules on the Operation, Transportation, Use and Replenishment of Material Goods in the Operational Reserve," signed into law in 2014, established an "operational reserve" that covers stocks of material and equipment, including medicines and medicinal products, to be used during emergencies. [1] The operational reserve is managed by the Ministry of Internal Affairs through the Committee for Emergency Situations and the National Guard. [1] While this document states that the Committee for Emergency Situations is responsible for replenishing the reserve's inventory as needed, it does not mention a requirement for regular assessment or review. [1]

There is also no evidence that any assessments or reviews have been conducted on the websites of the Ministry of Health, the Ministry of Defense, or of the Committee for Emergency Situations. [2, 3, 4]

According to an article from May 2020, Kazakhstan's existing stockpile of medical reserves is stored in a variety of improper facilities and is not consistently replenished. [5] This article quotes a member of Kazakhstan's parliament, who claims that the stockpile was not used as part of the country's COVID-19 response due to its aging inventory. [5]

[1] Government of Kazakhstan. 16 May 2014. "Rules on the Operation, Transportation, Use and Replenishment of Material Goods in the Operational Reserve" ("Об утверждении Правил оперирования, перемещения, использования, пополнения материальных ценностей оперативного резерва уполномоченного органа в сфере гражданской защиты").

[https://tengrinews.kz/zakon/pravitelstvo_respubliki_kazahstan_premier_ministr_rk/natsionalnaya_bezopasnost/id-V1400009508]. Accessed 8 August 2020.

[2] Ministry of Health of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/dsm?lang=ru>]. Accessed 7 August 2020.

[3] Committee for Emergency Situations of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/emer/>]. Accessed 8 March 2021.

[4] Ministry of Defense of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/mod>]. Accessed 8 March 2021.

[5] Kursiv. May 2020. "Kazakhstan's state stockpile includes Soviet-era medicines and medical devices" ("Советские лекарства и приборы хранят в госрезерве РК"). [<https://kursiv.kz/news/medicina/2020-05/sovetskie-lekarstva-i-pribory-khranyat-v-gosrezerve-rk>]. Accessed 8 March 2021.

4.2.3 Manufacturing and procurement for emergencies

4.2.3a

Does the country meet one of the following criteria?

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

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

Current Year Score: 0

There is insufficient evidence that Kazakhstan has a plan or 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 nor of a mechanism to procure medical supplies (e.g. MCMs, medicines, vaccines, equipment, PPE) for national use during a public health emergency.

The "Rules on the Operation, Transportation, Use and Replenishment of Material Goods in the Operational Reserve," signed into law in 2014, established an "operational reserve" that covers stocks of material and equipment, including medicines and medicinal products, to be used during emergencies. [1] The operational reserve is managed by the Ministry of Internal Affairs through the Committee for Emergency Situations and the National Guard. [1] However, this document does not mention a plan to leverage domestic manufacturing capacity to produce medical supplies.

In March 2020, the United States Agency for International Development (USAID) donated 10,000 examination gloves, 10,000 masks, 1,400 isolation gowns and 200 protective goggles to the City Center for Ambulance Services in Nur-Sultan, Kazakhstan to combat COVID-19. [2] Then in July 2020, the government of Kazakhstan announced that 7.2 million tenge (USD 17,148) would be allocated to form a reserve of personal protective equipment for frontline medical workers in the wake of COVID-19. [3] There is no evidence of any plan to form a permanent reserve or leverage domestic manufacturing capacity to produce medical supplies after COVID-19. No evidence of this was found on the websites of the Ministry of Health, the Ministry of Internal Affairs, the Committee for Emergency Situations, or the National Security Committee. [4, 5, 6, 7]

However, there is a mechanism to procure medical supplies during a public health emergency. The procurement protocol is established by the "Rules on the Organization and Conduct of the Procurement of Medical Supplies, Medical Equipment and Pharmaceutical Services," which was signed into law in October 2009 and last updated in May 2019. [8] The supplies covered under this protocol include "any instruments, equipment or devices [...] which are used for medical purposes" as well as goods needed for "the monitoring of an individual's organism" and "the conduct of medical tests." This protocol lays out an expedited/simplified procurement procedure for medical goods that is explicitly permissible if the goods being procured are necessary "to prevent the emergency and spread of infectious and parasitic diseases" and "to prevent and address the consequences of emergency situations." [8]

[1] Government of Kazakhstan. 16 May 2014. "Rules on the Operation, Transportation, Use and Replenishment of Material Goods in the Operational Reserve" ("Об утверждении Правил оперирования, перемещения, использования, пополнения материальных ценностей оперативного резерва уполномоченного органа в сфере гражданской защиты"). [https://tengrinews.kz/zakon/pravitelstvo_respubliki_kazakhstan_premier_ministr_rk/natsionalnaya_bezopasnost/id-V1400009508]. Accessed 8 August 2020.

[2] US Agency for International Development (USAID). 17 March 2020. "The United States Supports Kazakhstan's Efforts to Contain the Coronavirus Outbreak". [<https://www.usaid.gov/kazakhstan/press-releases/mar-17-2020-united-states-supports-kazakhstan-efforts-contain-coronavirus>]. Accessed 8 August 2020.

[3] Forbes Kazakhstan. 21 June 2020. "7.2 billion tenge allocated from the budget to buy PPE for frontline workers" ("7,2 млрд тенге выделяют из резерва правительства на СИЗ для работников первой линии"). [https://forbes.kz/news/2020/07/21/newsid_229834]. Accessed 8 August 2020.

[4] Ministry of Health of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/dsm?lang=ru>]. Accessed 7 August 2020.

[5] National Security Committee of Kazakhstan. [<http://knb.gov.kz>]. Accessed 8 August 2020.

[6] Ministry of Internal Affairs of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/qriim?lang=en>]. Accessed 8 August 2020.

[7] Committee for Emergency Situations of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/emer/>]. Accessed 8 March 2021.

[8] Government of Kazakhstan. 30 May 2019. "Rules on the Organization and Conduct of the Procurement of Medical Supplies, Medical Equipment and Pharmaceutical Services" ("Об утверждении Правил организации и проведения закупа лекарственных средств и медицинских изделий, фармацевтических услуг"). [<https://primeminister.kz/ru/decisions/30052019-347>]. Accessed 8 August 2020.

4.2.3b

Does the country meet one of the following criteria?

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

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

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

Current Year Score: 0

There is no evidence that Kazakhstan has a plan to leverage domestic manufacturing capacity to produce laboratory supplies during a public health emergency, and while there is a mechanism for procuring medical supplies during a public health emergency, there is no evidence that this includes laboratory supplies.

The procurement protocol is established by the "Rules on the Organization and Conduct of the Procurement of Medical Supplies, Medical Equipment and Pharmaceutical Services," which was signed into law in October 2009 and last updated in May 2019. The supplies covered under this protocol include "any instruments, equipment or devices [...] which are used for medical purposes" as well as goods needed for "the monitoring of an individual's organism" and "the conduct of medical tests." Given the scope of this definition, it could be concluded that laboratory supplies and reagents are covered under this protocol; however, there is no explicit mention of them. [1]

This protocol lays out an expedited/simplified procurement procedure for medical goods that is explicitly permissible if the goods being procured are necessary "to prevent the emergency and spread of infectious and parasitic diseases" and "to prevent and address the consequences of emergency situations." [1]

No further evidence of a plan to leverage domestic manufacturing capacity of laboratory supplies or procure them during a public health emergency was found on the websites of the Ministry of Health, the National Security Committee, or the Committee for Emergency Situations. [2, 3, 4]

[1] Government of Kazakhstan. 30 May 2019. "Rules on the Organization and Conduct of the Procurement of Medical Supplies, Medical Equipment and Pharmaceutical Services" ("Об утверждении Правил организации и проведения закупа лекарственных средств и медицинских изделий, фармацевтических услуг"). [<https://primeminister.kz/ru/decisions/30052019-347>]. Accessed 8 August 2020.

[2] National Security Committee of Kazakhstan. [<http://knb.gov.kz>]. Accessed 8 August 2020.

[3] Ministry of Health of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/dsm?lang=ru>]. Accessed 7 August 2020.

[4] Committee for Emergency Situations of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/emer/>]. Accessed 5 August 2020.

4.3 MEDICAL COUNTERMEASURES AND PERSONNEL DEPLOYMENT

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

4.3.1a

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

Yes = 1, No = 0

Current Year Score: 0

There is no evidence that Kazakhstan has a plan for dispensing medical countermeasures during a public health emergency.

The "Rules on the Operation, Transportation, Use and Replenishment of Material Goods in the Operational Reserve," signed into law in 2014, established an "operational reserve" that covers stocks of material and equipment, including medicines and medicinal products, to be used during emergencies. The operational reserve is managed by the Ministry of Internal Affairs through the Committee for Emergency Situations and the National Guard. The Ministry of Internal Affairs is responsible for timely replenishment of the reserve and for taking inventory of the reserve, both in terms of quantity and quality. Stocks are replenished from the national budget as they are used. [1]

However, there is no evidence of a plan for dispensing these supplies in this document, nor on the websites of the Ministries of Health or National Security or of the Committee for Emergency Situations. [2, 3, 4]

[1] Government of Kazakhstan. 16 May 2014. "Rules on the Operation, Transportation, Use and Replenishment of Material Goods in the Operational Reserve" ("Об утверждении Правил оперирования, перемещения, использования, пополнения материальных ценностей оперативного резерва уполномоченного органа в сфере гражданской защиты").

[https://tengrinews.kz/zakon/pravitelstvo_respubliki_kazahstan_premier_ministr_rk/natsionalnaya_bezopasnost/id-V1400009508]. Accessed 8 August 2020.

[2] National Security Committee of Kazakhstan. [<http://knb.gov.kz>]. Accessed 8 August 2020.

[3] Ministry of Health of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/dsm?lang=ru>]. Accessed 7 August 2020.

[4] Committee for Emergency Situations of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/emer/>]. Accessed 5 August 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 no available public plan in place in Kazakhstan to receive health personnel from other countries to respond to a public health emergency, though there are general cooperation agreements. Article 5 of the agreement on cooperation in the field of public health among countries of the Commonwealth of Independent States (CIS) commits member countries to assist in the aftermath of natural disasters, environmental and other disasters, epidemics, as well as assist the efforts of other

countries, international and public organizations to provide such assistance. However, it does not provide a mechanism for doing this. [1] Within the Eurasian Economic Union, agreements allow for admission of medical and pharmaceutical specialists, as well as cooperation in combatting infectious diseases; but these do not cover specific plans either. [2, 3] There is no information on such plans on the websites of the Ministry of Health, the Committee for National Security, the Ministry of Defence or the Committee for Emergency Situations. [4, 5, 6, 7] In July 2020, doctors from Russia arrived in Kazakhstan to help control the spread of COVID-19. There is no evidence that they did so through any previously established protocol. [8]

[1] Commonwealth of Independent States. "Agreement on Cooperation in the Field of Public Health" ("Соглашение о сотрудничестве в области охраны здоровья населения").

[<http://cis.minsk.by/reestr/ru/index.html#reestr/view/text?doc=116>]. Accessed 7 August 2020.

[2] Government of Kazakhstan. "On the signing of the Agreement on the procedure for the admission of specialists eligible to engage in medical or pharmaceutical activities in one of the member states of the Eurasian Economic Community to similar activities in other member states of the Eurasian Economic Community" ("О подписании Соглашения о порядке допуска специалистов, имеющих право на занятие медицинской или фармацевтической деятельностью в одном из государств-членов Евразийского экономического сообщества, к аналогичной деятельности в других государствах-членах Евразийского экономического сообщества").

[https://tengrinews.kz/zakon/pravitelstvo_respubliki_kazahstan_premier_ministr_rk/mejdunapodnyie_otnosheniya_respubliki_kazahstan/id-P1200001235/]. Accessed 7 August 2020.

[3] Government of Kazakhstan. "On approval of the Cooperation Agreement of the member states of the Eurasian Economic Community in the field of combating infectious diseases" ("Об утверждении Соглашения о сотрудничестве государств-членов Евразийского экономического сообщества в области борьбы с инфекционными болезнями").

[https://tengrinews.kz/zakon/pravitelstvo_respubliki_kazahstan_premier_ministr_rk/mejdunapodnyie_otnosheniya_respubliki_kazahstan/id-P1300001053/]. Accessed 7 August 2020.

[4] Ministry of Health of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/dsm?lang=ru>]. Accessed 7 August 2020.

[5] National Security Committee of Kazakhstan. [<http://knb.gov.kz>]. Accessed 8 August 2020.

[6] Ministry of Defense of Kazakhstan. [<https://www.gov.kz/memleket/entities/mod/>]. Accessed 7 August 2020.

[7] Committee for Emergency Situations of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/emer/>]. Accessed 5 August 2020.

[8] Izvestiya. 16 July 2020. "Russian doctors arrive in Kazakhstan to help fight COVID-19" ("Российские врачи прибыли в Казахстан для помощи с лечением COVID-19"). [<https://iz.ru/1036093/2020-07-16/rossiiskie-vrachi-pribyli-v-kazahstan-dlia-pomoshchi-s-lecheniem-covid-19>]. Accessed 8 August 2020.

4.4 HEALTHCARE ACCESS

4.4.1 Access to healthcare

4.4.1a

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

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

Current Year Score: 4

2020

World Policy Analysis Center

4.4.1b

Access to skilled birth attendants (% of population)

Input number

Current Year Score: 99.4

2015

WHO/World Bank/United Nations Children's Fund (UNICEF)

4.4.1c

Out-of-pocket health expenditures per capita, purchasing power parity (PPP; current international \$)

Input number

Current Year Score: 271.94

2017

WHO Global Health Expenditure database

4.4.2 Paid medical leave

4.4.2a

Are workers guaranteed paid sick leave?

Paid sick leave = 2, Unpaid sick leave = 1, No sick leave = 0

Current Year Score: 2

2020

World Policy Analysis Center

4.4.3 Healthcare worker access to healthcare

4.4.3a

Has the government issued legislation, a policy, or a public statement committing to provide prioritized healthcare services to healthcare workers who become sick as a result of responding to a public health emergency?

Yes = 1, No = 0

Current Year Score: 0

There is no evidence that the government has issued legislation, a policy or a public statement committing to provide prioritised health care services to healthcare workers who become sick as a result of responding to a public health emergency. The Law on Civil Protection refers to rights of rescuers involved in accident rescue operations (mainly to enable them to fulfil their duties) and the right to free medical treatment if injured while performing their duties (including

volunteer rescuers), but not to prioritised healthcare for healthcare workers in the context of a public health emergency. [1] There is no evidence on the websites of the Ministry of Health, the National Center for Public Health, the Committee for Emergency Situations, the Center for Emergency Situations and Disaster Risk Reduction, and in Government Resolution No. 486 "On approval of action plans for emergency response of global and regional scale" (which sets out the arrangements for conducting emergency rescue operations in the event of a national emergency) [2, 3, 4, 5, 6].

In July 2020, the government of Kazakhstan issued a one-time payment to a number of medical professionals in the country who contracted COVID-19. [7] This does not appear to have been done within the framework of any pre-existing protocol.

[1] Government of Kazakhstan. 7 July 2020. "On Civil Protection" ("О гражданской защите").

[https://online.zakon.kz/document/?doc_id=31534450]. Accessed 8 August 2020.

[2] Ministry of Health of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/dsm?lang=ru>]. Accessed 7 August 2020.

[3] National Center for Public Health. [<https://hls.kz/>]. Accessed 5 August 2020.

[4] Committee for Emergency Situations of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/emer/>]. Accessed 5 August 2020.

[5] Center for Emergency Situations and Disaster Risk Reduction. [<https://cesdrr.org/>] Accessed 8 August 2020.

[6] Government of Kazakhstan. 20 May 2019. "On approval of action plans for emergency response of global and regional scale" ("Об утверждении планов действий по ликвидации чрезвычайных ситуаций глобального и регионального масштабов").

[https://tengrinews.kz/zakon/pravitelstvo_respubliki_kazahstan_premier_ministr_rk/natsionalnaya_bezопасnost/id-P1900000357/]. Accessed 8 August 2020.

[7] Tengrinews.kz. 24 July 2020. "How many coronavirus-infected doctors received 2 million tenge" ("Сколько заразившихся коронавирусом медиков получили по 2 миллиона тенге"). [https://tengrinews.kz/kazakhstan_news/skolko-zarazivshihsyakoronavirusom-medikov-poluchili-2-409409]. Accessed 8 August 2020.

4.5 COMMUNICATIONS WITH HEALTHCARE WORKERS DURING A PUBLIC HEALTH EMERGENCY

4.5.1 Communication with healthcare workers

4.5.1a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence of a system being in place for public health officials and healthcare workers to communicate during a public health emergency. No system is referred to on the websites of the Ministry of Health, the Committee for Emergency Situations, or the Center for Emergency Situations and Disaster Risk Reduction [1, 2, 3]. There is also no evidence of a communications plan between public health officials in the wake of COVID-19.

Crisis communications with the public are included in the "Plan for the Liquidation of Emergencies of Global and Regional Scale" (approved in 2017 and last updated in May 2019), but communications between public health workers/officials are not covered. [4]

[1] Ministry of Health of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/dsm?lang=ru>]. Accessed 7 August 2020.

[2] Committee for Emergency Situations of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/emer/>]. Accessed 5 August 2020.

[3] Center for Emergency Situations and Disaster Risk Reduction. [<https://cesdrr.org/>] Accessed 8 August 2020.

[4] Government of Kazakhstan. 20 May 2019. "On approval of action plans for emergency response of global and regional scale" ("Об утверждении планов действий по ликвидации чрезвычайных ситуаций глобального и регионального масштабов").

[https://tengrinews.kz/zakon/pravitelstvo_respubliki_kazahstan_premier_ministr_rk/natsionalnaya_bezопасnost/id-P1900000357/]. Accessed 8 August 2020.

4.5.1b

Does the system for public health officials and healthcare workers to communicate during an emergency encompass healthcare workers in both the public and private sector?

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence of a system being in place for public health officials and healthcare workers to communicate during a public health emergency, and there is no evidence of any other platform for public and private healthcare workers to communicate.

No system is referred to on the websites of the Ministry of Health, the Committee for Emergency Situations, or the Center for Emergency Situations and Disaster Risk Reduction [1, 2, 3]. There is also no evidence of a communications plan between public health officials in the wake of COVID-19.

Crisis communications with the public are included in the "Plan for the Liquidation of Emergencies of Global and Regional Scale" (approved in 2017 and last updated in May 2019), but communications between public health workers/officials are not covered. [4]

[1] Ministry of Health. [<http://dsm.gov.kz/ru>]. Accessed 25 August 2020.

[2] Committee for Emergency Situations. [<https://www.gov.kz/memleket/entities/emer?lang=ru/>]. Accessed 25 August 2020.

[3] Center for Emergency Situations and Disaster Risk Reduction. [<https://cesdrr.org/>] Accessed 25 August 2020.

[4] Resolution of the Government of the Republic of Kazakhstan from 16 August 2017 No. 486 "On approval of action plans for emergency response of global and regional scale (Об утверждении планов действий по ликвидации чрезвычайных ситуаций глобального и регионального масштабов)". Accessed 5 August 2020.

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 the national public health system monitors for and tracks the number of health care associated infections (HCAIs) that take place in healthcare facilities.

A decree of the Ministry of Health, entitled "Rules for Carrying Out Infection Control in Medical Organizations," signed into law in 2013, requires the creation of an infection control commission in every medical organization and a program of infection control, the elements of which include full and timely accounting and registration of health care associated infections; analysis of incidence of infections, identifying causes and risk factors, with necessary measures to eliminate these; development of technology for epidemiologically safe implementation of medical and diagnostic procedures; microbiological monitoring; development of an antibiotic prophylaxis program; and training of medical personnel in infection control issues. Infection control specialists are to participate in clinical rounds at least twice a week in the units of the healthcare organization with a high risk of infection. [1]

However, there is no clear evidence that this monitoring is ongoing or which authority currently oversees the surveillance on the websites of the Ministry of Health or the National Center for Public Health. [2, 3] There is also no evidence on these websites that monitoring of HCAIs has increased in the wake of COVID-19 in Kazakhstan. [2, 3] In October 2019, a "Coordination Center for the Control and Prevention of Infections" was established in Kazakhstan with the support of the United Nations Population Fund (UNFPA) and began a pilot project in four cities. The Center currently has no web presence, and there is no evidence that HCAI monitoring efforts have expanded to the national level. [4] Additionally, an April 2020 UNFPA report claims that HCAIs are not explicitly monitored in Kazakhstan and that existing disease surveillance methods in the country are not sufficient for the tracking of HCAIs. [5]

However, Kazakhstan's State Program on Healthcare Development 2020-2025 entails, in part, investments in measures to prevent the spread of HCAIs. [6]

[1] Ministry of Health of the Republic of Kazakhstan. "On approval of the rules of infection control in medical organizations" ("Об утверждении Правил проведения инфекционного контроля в медицинских организациях").

[https://online.zakon.kz/Document/?doc_id=31342607]. Accessed 8 August 2020.

[2] Ministry of Health of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/dsm?lang=ru>]. Accessed 7 August 2020.

[3] National Center for Public Health. [<https://hls.kz/>]. Accessed 5 August 2020.

[4] Kazakhstan Today. October 2019. "Coordination Center for the Control and Prevention of Infections created in Kazakhstan" ("В Казахстане создан координационный центр по контролю и профилактике инфекций").

[https://www.kt.kz/rus/medicine/_1377890227.html]. Accessed 8 March 2021.

[5] United Nations Population Fund. April 2020. "Situational Analysis: State of affairs with the prevention and control of perinatal care-associated infections in the Republic of Kazakhstan" ("Ситуационный анализ: состояние профилактики и контроля инфекций, связанных с оказанием перинатальной помощи в Республике Казахстан").

[<https://kazakhstan.unfpa.org/sites/default/files/pub-pdf/Ситуационный%20анализ%20%281%29.pdf>]. Accessed 8 March 2021.

[6] Government of Kazakhstan. 26 December 2019. "Confirmation of the State Program on Healthcare Development in the Republic of Kazakhstan 2020-2025" ("Об утверждении Государственной программы развития здравоохранения Республики Казахстан на 2020 – 2025 годы").

[https://tengrinews.kz/zakon/pravitelstvo_respubliki_kazakhstan_premier_ministr_rk/zdravoohranenie/id-P1900000982]. Accessed 8 August 2020.

4.7 CAPACITY TO TEST AND APPROVE NEW MEDICAL COUNTERMEASURES

4.7.1 Regulatory process for conducting clinical trials of unregistered interventions

4.7.1a

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

Yes = 1, No = 0

Current Year Score: 1

There is a national requirement for ethical review before beginning a clinical trial.

The requirement for ethical review before beginning a clinical trial in Kazakhstan is set out in the "Rules for the Conduct of Pre-Clinical (Non-Clinical) Trials, Clinical Trial, and Clinical Laboratory Tests of Medical Supplies," issued by the Ministry of Health of Kazakhstan and last updated in 2018. The sponsor of the trial is required to submit a number of materials to the Central Commission for Bioethics or to the commission for bioethics at a given medical facility, depending on the scale of the proposed trials. These documents include a comprehensive description of the proposed trials in the Kazakh and Russian languages, the resumes of the researchers involved, information about the procedure for selecting and compensating clinical trial subjects, and a variety of other documents. The local or Central Bioethics Commission must complete the ethical study within 14 business days of receipt of these documents and payment for the study. The person or entity seeking to conduct clinical trials must receive approval from the bioethics committee before proceeding. [1, 2]

[1] Ministry of Health of the Republic of Kazakhstan. 5 April 2019. "Decree on the Central Bioethics Commission" ("Об утверждении положения о Центральной комиссии по биоэтике").
[https://tengrinews.kz/zakon/pravitelstvo_respubliki_kazakhstan_premier_ministr_rk/zdravooхранenie/id-V1900018480]. Accessed 8 August 2020.

[2] Government of Kazakhstan. 2 April 2018. "Rules for the Conduct of Pre-Clinical (Non-Clinical) Trials, Clinical Trial, and Clinical Laboratory Tests of Medical Supplies" ("Об утверждении Правил проведения доклинических (неклинических) исследований, клинических исследований, клинико-лабораторных испытаний медицинских изделий для диагностики in vitro, а также требований к доклиническим и клиническим базам" и оказания государственной услуги "Выдача разрешения на проведение клинического исследования и (или) испытания фармакологических и лекарственных средств, медицинских изделий").
[https://tengrinews.kz/zakon/pravitelstvo_respubliki_kazakhstan_premier_ministr_rk/zdravooхранenie/id-V1800016768]. Accessed 8 August 2020.

4.7.1b

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

Yes = 1, No = 0

Current Year Score: 1

There is an expedited process for approving clinical trials for unregistered medical countermeasures in Kazakhstan.

The document "Rules for the Conduct of Pre-Clinical (Non-Clinical) Trials, Clinical Trial, and Clinical Laboratory Tests of Medical Supplies," issued by the Ministry of Health of Kazakhstan and last updated in 2018, establishes that the clinical trial approval process may be expedited if the medical goods/device being tested is necessary for the liquidation of an emergency situation. Under the expedited procedure, all phases of the clinical trial approval procedure must be completed within 15 calendar days. [1] Additionally, the law "On Public Health and the Healthcare System," signed into law in July 2020, states that expedited trials are still subject to requirements related to safety, effectiveness, and quality. [2]

[1] Government of Kazakhstan. 2 April 2018. "Rules for the Conduct of Pre-Clinical (Non-Clinical) Trials, Clinical Trial, and Clinical Laboratory Tests of Medical Supplies" ("Об утверждении Правил проведения доклинических (неклинических) исследований, клинических исследований, клинико-лабораторных испытаний медицинских изделий для диагностики in vitro, а также требований к доклиническим и клиническим базам" и оказания государственной услуги "Выдача разрешения на проведение клинического исследования и (или) испытания фармакологических и лекарственных средств, медицинских изделий") [https://tengrinews.kz/zakon/pravitelstvo_respubliki_kazahstan_premier_ministr_rk/zdravoohranenie/id-V1800016768]. Accessed 8 August 2020.

[2] Government of Kazakhstan. July 2020. "On Public Health and the Healthcare System" ("О здоровье народа и системе здравоохранения"). [https://online.zakon.kz/document/?doc_id=34464437]. Accessed 8 August 2020.

4.7.2 Regulatory process for approving medical countermeasures

4.7.2a

Is there a government agency responsible for approving new medical countermeasures (MCM) for humans?

Yes = 1 , No = 0

Current Year Score: 1

There is a government agency in Kazakhstan responsible for approving new medical countermeasures for humans. The National Center for Expertise of Medicines, Medical Devices and Medical Equipment is responsible for examining and registering medicinal products, medical devices and medical equipment [1]. Beyond granting or refusing registration or requesting a modification to the product based on an examination of the necessary documents, the Center also assesses production conditions and implements a quality assurance system, which includes monitoring any adverse events (incidents) involving the manufacturers of medicines. Furthermore, the Center assesses the safety and quality of registered medicines and medical products to determine their compliance with the established requirements, as well as to decide on the need for a clinical study [1]. The Center was established in 1997 and has 5 territorial branches with accredited testing laboratories, 3 representative offices and an accredited testing center [1]. It is certified with the international standard for quality management systems - ISO 9001: 2015 [1]. The actual requirement subjecting all medical goods produced in Kazakhstan or imported to Kazakhstan to review by the National Center is set out in the "Rules for the Conduct of Expertise on Medical Goods and Medical Devices," first published in 2009 and last updated in 2019. [2]

[1] National Center for Expertise of Medicines, Medical Devices and Medical Equipment. "About the National Center" ("О Национальном центре"). [https://www.ndda.kz/category/About_the_center]. Accessed 7 August 2020.

[2] Ministry of Health of the Republic of Kazakhstan. 19 April 2019. "Rules on the conduct of expertise of medical goods and medical devices" ("Об утверждении Правил проведения экспертизы лекарственных средств и медицинских изделий"). [https://tengrinews.kz/zakon/pravitelstvo_respubliki_kazahstan_premier_ministr_rk/zdravoohranenie/id-V090005926_/]. Accessed 7 August 2020.

4.7.2b

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

Yes = 1, No = 0

Current Year Score: 1

There is an expedited process for approving medical countermeasures in Kazakhstan during public health emergencies. The requirement subjecting all medical goods produced in Kazakhstan or imported to Kazakhstan to review by the National Center is set out in the "Rules for the Conduct of Expertise on Medical Goods and Medical Devices," first published in 2009 and last updated in 2019. The expedited approval procedure is available for "the prevention of emergency situations" and the "liquidation of the consequences of infectious diseases with epidemic or pandemic potential". The expedited approval procedure is to take "no more than 120 calendar days." [1] The government body responsible for conducting the approval procedures is the National Center for Expertise of Medicines, Medical Devices and Medical Equipment. [1, 2]

[1] Ministry of Health of the Republic of Kazakhstan. 19 April 2019. "Rules on the conduct of expertise of medical goods and medical devices" ("Об утверждении Правил проведения экспертизы лекарственных средств и медицинских изделий"). [https://tengrinews.kz/zakon/pravitelstvo_respubliki_kazahstan_premier_ministr_rk/zdravooohranenie/id-V090005926_/]. [2] National Center for Expertise of Medicines, Medical Devices and Medical Equipment. "About the National Center" ("О национальном центре"). [https://www.ndda.kz/category/About_the_center/]. Accessed 7 August 2020.

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

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

5.1.1 Official IHR reporting

5.1.1a

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

Yes = 1, No = 0

Current Year Score: 1

2020

World Health Organization

5.1.2 Integration of health into disaster risk reduction

5.1.2a

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

Yes = 1, No = 0

Current Year Score: 1

Epidemics and epizootic outbreaks are integrated into Kazakhstan's disaster risk reduction strategy.

The primary document governing disaster risk reduction is Kazakhstan's National Security Strategy, last updated in July 2020. Epidemics and epizootic disease outbreaks are explicitly listed as potential risks to national security. However, while a wide variety of risk mitigation strategies are described throughout the document in the areas of military, ecological, and information security as well as demographic, political, and economic stability, no specific measures are proposed to mitigate the risks of the outbreak of an epidemic or pandemic. [1]

Disaster risk prevention and management are also addressed in Article 3 of the 2014 law "On Civil Protection" as the core tasks and principles of civil defense and protection, stated as, "to reduce the consequences of natural and technogenic disaster risks." Epidemics are also cited explicitly in this document as a potential source of disaster risk. [2]

[1] Government of Kazakhstan. 7 July 2020. "On national security in the Republic of Kazakhstan" ("О национальной безопасности Республики Казахстан"). [https://online.zakon.kz/document/?doc_id=31106860]. Accessed 8 August 2020.

[2] Government of Kazakhstan. 7 July 2020. "On Civil Protection" ("О гражданской защите"). [https://online.zakon.kz/document/?doc_id=31534450]. Accessed 8 August 2020.

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

5.2.1 Cross-border agreements

5.2.1a

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

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

Current Year Score: 2

Kazakhstan has cross-border agreements with neighboring countries with regards to public health emergencies.

Kazakhstan is a member state of the Healthcare Cooperation Council within the Commonwealth of Independent States (CIS), which was established in 1992. The Healthcare Cooperation Council was set up with the aim of multilateral cooperation in the field of public health and sanitary-epidemiological wellbeing of the population, development of international relations in pharmacology, medical science and technology, and other public health matters. Its activities include policy coordination in the prevention of widespread infectious diseases and the minimization of the medical consequences of catastrophes. [1] The Council's most recent meeting was in June 2020 in Minsk, Belarus. [2]

Additionally, one of the main strategic directions of the Center for Emergency Situations and Disaster Risk Reduction

(CESDRR) in Almaty, Kazakhstan, set up jointly with Kyrgyzstan, is to strengthen preparedness for effective response to emergencies, including creating a single registry of forces and means of the parties to respond to large-scale and cross-border emergencies. [3] CESDRR's most recent meeting on strengthening the regional COVID-19 response took place via videoconference in July 2020. [4]

Both of these organizations actively hold meetings and it does not appear that there are significant gaps in their implementation.

[1] Commonwealth of Independent States. "Passport: Health Cooperation Council of the Commonwealth of Independent States". [<https://e-cis.info/cooperation/3031/77302/>]. Accessed 7 August 2020.

[2] Commonwealth of Independent States. 30 June 2020. "Information on the XXXI meeting of the CIS Committee for Cooperation in Healthcare (30 June 2020, Minsk, Belarus)" ("Информация о XXXI заседании Совета по сотрудничеству в области здравоохранения СНГ (30 июня 2020 года, г. Минск, Республика Беларусь)"). [<https://e-cis.info/cooperation/3081/87712/>]. Accessed 8 August 2020.

[3] Center for Emergency Situations and Disaster Risk Reduction. "Strategic Directions of the Center for Emergency Situations and Risk Reduction Disaster in Almaty up to 2030". [<http://cesdr.org/wp-content/uploads/2017/09/Centers-Strategic-DIrections-eng-final.pdf>]. Accessed 7 August 2020.

[4] Center for Emergency Situations and Disaster Risk Reduction (CESDRR). 10 July 2020. "The second regional consultative meeting on strengthening joint coordinated actions on COVID-19 pandemic response at the regional level". [<http://cesdr.org/en/2020/07/13/the-second-regional-consultative-meeting>]. Accessed 8 August 2020.

5.2.1b

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

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

Current Year Score: 0

There is no evidence that Kazakhstan has cross-border agreements with neighboring countries in the region with regards to animal health emergencies. The Health Cooperation Council of the Commonwealth of Independent States was set up with the aim of multilateral cooperation in the field of public health and sanitary-epidemiological wellbeing of the population, development of international relations in pharmacology, medical science and technology, and other public health matters. Its activities include policy coordination in prophylaxis against the more widespread infectious diseases and coordination in minimising the medical consequences of catastrophes. It is recorded as having prepared documents on cooperation in combating new threats - including avian influenza, though these are not publicly available. [1] Animal health emergencies do not seem to be part of this. The country is also part of the West Eurasia Foot-and-Mouth Disease Roadmap, which was set up by the Food and Agriculture Organisation in 2009 by bringing together 14 Eurasian countries affected by foot-and-mouth disease to discuss how to collectively reduce disease levels. The original aim was that by 2020, incidence of the disease would be infrequent and easily contained. There is no evidence of any sort of emergency response mechanism as a part of this initiative. [2] Finally, Kazakhstan is a member for the Center for Emergency Situations and Disaster Risk Reduction (CESDRR), set up jointly with Kyrgyzstan, whose mission is to strengthen preparedness for effective response to emergencies, including creating a single registry of forces and means of the parties to respond to large-scale and cross-border emergencies. However, no specific information regarding animal health emergencies could be found on the website of CESDRR. [3] No further evidence was found on the website of the Ministry of Health. [4]

[1] Commonwealth of Independent States. "Passport: Health Cooperation Council of the Commonwealth of Independent States". [<https://e-cis.info/cooperation/3031/77302/>]. Accessed 7 August 2020.

[2] World Organization for Animal Health/Food and Agriculture Organisation (OIE/FAO) Reference Laboratory Network for Foot-and-Mouth Disease. "Regional Roadmaps and Initiatives for FMD control". [<https://www.foot-and-mouth.org/science/roadmaps>]. Accessed 8 August 2020.

[3] Center for Emergency Situations and Disaster Risk Reduction. "Strategic Directions of the Center for Emergency Situations and Risk Reduction Disaster in Almaty up to 2030". [<http://cesdr.org/wp-content/uploads/2017/09/Centers-Strategic-Directions-eng-final.pdf>]. Accessed 7 September 2020.

[4] Ministry of Health of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/dsm?lang=ru>]. Accessed 25 August 2020.

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: 2

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: 1

Kazakhstan has committed funds to improve capacity to address epidemic threats within the past three years.

Kazakhstan's Healthcare Development Strategy 2020-2025, which came into effect in December 2019, commits over 3.2 trillion tenge (USD 7.6 million) from state and local budgets to a number of upgrades to the capacity of the country's healthcare system over five years. [1]

While there are not very many concrete measures proposed in the Strategy, it states that the country will improve its capacity to prevent and contain infectious diseases at the local and national levels. It will also invest in measures to prevent the spread of healthcare-associated infections (HCAIs). The Strategy also states that efforts will be made to inform the public about the importance of vaccinations. Finally, as part of this Strategy, the country will develop an inter-agency plan to control antimicrobial resistance. [1] This Strategy is a follow-up to a large-scale healthcare investment program called Densaulyk, which ran from 2016-2019. [2]

[1] Government of Kazakhstan. 26 December 2019. "Confirmation of the State Program on Healthcare Development in the Republic of Kazakhstan 2020-2025" ("Об утверждении Государственной программы развития здравоохранения Республики Казахстан на 2020 – 2025 годы").

[https://tengrinews.kz/zakon/pravitelstvo_respubliki_kazahstan_premier_ministr_rk/zdravooxranenie/id-P1900000982]. Accessed 8 August 2020.

[2] Government of Kazakhstan. 2016. "State Program for the development of healthcare in the Republic of Kazakhstan: 'Densaulyk' 2016-2020" ("Государственная программа развития здравоохранения Республики Казахстан «Денсаулық» на 2016-2020 годы"). [https://kaznmu.kz/rus/wp-content/uploads/2016/03/densaulyk_2016-2020_0.pdf]. Accessed 8 August 2020.

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

5.5.2a

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

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

Current Year Score: 0

2021

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

5.5.2b

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

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

Current Year Score: 0

2021

OIE PVS assessments

5.5.3 Financing for emergency response

5.5.3a

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

Yes = 1, No = 0

Current Year Score: 0

There is no publicly available evidence that there is a publicly identified special emergency public financing mechanism and funds which Kazakhstan can access in the face of a public health emergency. Kazakhstan is not listed as being eligible for IDA borrowing. [1,2] There is no information concerning a financing mechanism on the websites of the Committee for Emergency Situations, National Security Committee, or the Ministry of Health. [3, 4, 5]

[1] IDA. "Borrowing countries". [<http://ida.worldbank.org/about/borrowing-countries>]. Accessed 7 August 2020.

[2] World Bank Pandemic Financing Facility. [<http://pubdocs.worldbank.org/en/119961516647620597/PEF-Operational-Brief-Dec-2017.pdf>]. Accessed 21 October 2018.

[3] Committee for Emergency Situations of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/emer/>]. Accessed 5 August 2020.

[4] Ministry of Health of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/dsm?lang=ru>]. Accessed 7 August 2020.

[5] National Security Committee of Kazakhstan. [<http://knb.gov.kz>]. Accessed 8 August 2020.

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

5.5.4a

Is there evidence that senior leaders (president or ministers), in the past three years, have made a public commitment either to:

- Support other countries to improve capacity to address epidemic threats by providing financing or support?
- Improve the country's domestic capacity to address epidemic threats by expanding financing or requesting support to improve capacity?

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

Current Year Score: 0

There is insufficient evidence that senior leaders in Kazakhstan have publicly committed to increasing the country's domestic capacity to address epidemic threats or to supporting other countries to improve capacity to address epidemic threats by providing financing or support. There is, however, evidence of support for improving healthcare overall.

In December 2019, commenting on the launch of the country's Healthcare Development Strategy 2020-2025, Prime Minister of Kazakhstan Askar Mamin stated that "[a] range of measures will be taken to improve the quality of healthcare" and that "[f]or the first time ever, 2.8 trillion tenge [USD 6.6 million] will be invested into this sector." [1] While this statement did not explicitly reference increasing the country's capacity to address epidemic threats, the Healthcare Development Strategy

2020-2025 includes a number of references to bolstering Kazakhstan's ability to respond to infectious disease and epidemic outbreaks. [2]

No evidence of public commitments to support other countries' capacity to address epidemic threats was found on the websites of the Ministry of Health, the Ministry of Foreign Affairs, or the World Health Organization (WHO). [3, 4, 5]

- [1] Finance.kz. 18 December 2019. "Government confirms state programme on healthcare development for 2020-2025" ("Правительство утвердило Госпрограмму развития здравоохранения на 2020-2025 годы"). [https://finance.kz/news/pravitelstvo_utverdilo_gosprogrammu_razvitiya_zdravooxraneniya_na_2020_2025_gody-1334]. Accessed 8 August 2020.
- [2] Government of Kazakhstan. 26 December 2019. "Confirmation of the State Program on Healthcare Development in the Republic of Kazakhstan 2020-2025" ("Об утверждении Государственной программы развития здравоохранения Республики Казахстан на 2020 – 2025 годы"). [https://tengrinews.kz/zakon/pravitelstvo_respubliki_kazahstan_premier_ministr_rk/zdravooxranenie/id-P1900000982]. Accessed 8 August 2020.
- [3] Ministry of Health of the Republic of Kazakhstan. [https://www.gov.kz/memleket/entities/dsm?lang=ru]. Accessed 25 August 2020.
- [4] Ministry of Foreign Affairs of the Republic of Kazakhstan. [https://www.gov.kz/memleket/entities/mfa]. Accessed 25 August 2020.
- [5] World Health Organization. "Kazakhstan." [https://www.who.int/countries/kaz/en/]. Accessed 25 August 2020.

5.5.4b

Is there evidence that the country has, in the past three years, either:

- Provided other countries with financing or technical support to improve capacity to address epidemic threats?
- Requested financing or technical support from donors to improve the country's domestic capacity to address epidemic threats?

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

Current Year Score: 1

Kazakhstan has invested finances from international donors to improve its domestic capacity to address epidemic threats in the past three years. There is no evidence that it has invested finances or provided technical support to other countries to improve capacity to improve epidemic threats.

The Georgetown Global Health Security Tracker records that Kazakhstan has disbursed USD 172.81 million and has been committed an additional USD 192.08 million for a variety of health care capacity-building projects for the period from 2014-2020, including USD 1.64 million in the area of workforce development, USD 23 million in antimicrobial resistance-related measures, and USD 1.7 million to improve the country's national laboratory system. [1]

In the wake of the COVID-19 outbreak, Kazakhstan has also received around USD 2 million in funding from the US Agency for International Development (USAID) to improve risk communication, infection prevention and control efforts, and laboratory capacity. [2]

No evidence of technical/financial support to other countries' capacity to address epidemic threats was found on the websites of the Ministry of Health, the Ministry of Foreign Affairs, or the World Health Organization (WHO). [3, 4, 5] Evidence of this was also not found on the Global Health Security Tracker. [1]

- [1] Global Health Security Funding Tracker. "Recipient Profile: Kazakhstan". [https://tracking.ghscosting.org/details/976/recipient]. Accessed 8 March 2021.
- [2] United States Agency for International Development (USAID). "US Assistance to Kazakhstan for the COVID-19 Crisis". [https://www.usaid.gov/kazakhstan/fact-sheets/us-assistance-kazakhstan-covid-19-crisis]. Accessed 8 August 2020.
- [3] Ministry of Health of the Republic of Kazakhstan. [https://www.gov.kz/memleket/entities/dsm?lang=ru]. Accessed 25 August 2020.
- [4] Ministry of Foreign Affairs of the Republic of Kazakhstan. [https://www.gov.kz/memleket/entities/mfa]. Accessed 25 August 2020.
- [5] World Health Organization. "Kazakhstan." [https://www.who.int/countries/kaz/en/]. Accessed 25 August 2020.

5.5.4c

Is there evidence that the country has fulfilled its full contribution to the WHO within the past two years?

Yes = 1 , No = 0

Current Year Score: 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

There is no clear evidence that Kazakhstan has a publicly available plan for sharing genetic data, epidemiological data, clinical specimens, and/or isolated specimens with international organizations and/or other countries that goes beyond influenza.

No such evidence could be found on the websites of the Ministry of Health, Ministry of Agriculture, or the Ministry of Education and Science [1, 2, 3]. However, there is evidence that such sharing is taking place. As a member of the World Health Organization's European Measles and Rubella Laboratory Network, Kazakhstan shares epidemiological data on measles and rubella [4, 5].

Kazakhstan is also a member of the Eurasian Economic Union (EAEU), and according to paragraph 7 of that organization's Protocol on Application of Sanitary, Veterinary-Sanitary and Phytosanitary Quarantine Measures, the sanitary-epidemiological authorities of one member state are entitled to request reports on laboratory studies and tests from those of other member states [6].

As a member of the Central Asian and Eastern European Surveillance of Antimicrobial Resistance (CAESAR) network, Kazakhstan is committed to report surveillance data on antimicrobial resistance once it has developed the capacity to do so. [7]

[1] Ministry of Health of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/dsm?lang=ru>]. Accessed 7 August 2020.

[2] Ministry of Education and Science. [<https://www.gov.kz/memleket/entities/edu?lang=en>]. Accessed 8 August 2020.

[3] Ministry of Agriculture of the Republic of Kazakhstan. [<https://www.gov.kz/memleket/entities/moa>]. Accessed 8 August 2020.

[4] World Health Organization. 2018. "13th Meeting of the Measles / Rubella Regional Reference Laboratories." [http://www.euro.who.int/__data/assets/pdf_file/0008/387161/rrl-mar-2018-meeting-eng.pdf?ua=1]. Accessed 8 August 2020.

[5] World Health Organization. "Measles and Rubella Laboratory Network." [<http://www.euro.who.int/en/health-topics/communicable-diseases/measles-and-rubella/activities/measles-and-rubella-laboratory-network>]. Accessed 8 August 2020.

[6] Treaty on the Eurasian Economic Union. [http://www.un.org/en/ga/sixth/70/docs/treaty_on_eeu.pdf]. Accessed 8 August 2020.

[7] World Health Organization. 2018. "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 8 August 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 that the country has not shared samples in accordance with the PIP framework in the past two years. The country is listed as a recipient country of funds for regulatory capacity building under the PIP framework for the period 2020-2021. [1]

[1] World Health Organization. "Pandemic Influenza Preparedness (PIP) Framework Partnership Contribution (PC) Recipient Countries 2020-21". [https://www.who.int/influenza/pip/partnership_contribution/hlipii_2020_21_countrylist.pdf]. Accessed 8 August 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 that Kazakhstan has not shared pandemic pathogen samples during an outbreak over the past two years. No evidence could be found on the websites of the World Health Organization or in local media in Kazakhstan. [1, 2, 3,

4, 5]

[1] World Health Organization. "Kazakhstan". [<https://www.who.int/countries/kaz/en>]. Accessed 8 August 2020.

[2] Eurasianet. [<https://eurasianet.org>]. Accessed 8 August 2020.

[3] Radio Free Europe/Radio Liberty. [<https://www.rferl.org>]. Accessed 8 August 2020.

[4] Tengrinews.kz. [<https://tengrinews.kz>]. Accessed 8 August 2020.

[5] Zakon.kz [<https://www.zakon.kz>]. Accessed 8 August 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: 38

2020

Transparency International

6.1.1f

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

Input number

Current Year Score: 1

2020

Economist Intelligence

6.1.1g

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

Input number

Current Year Score: 1

2020

Economist Intelligence

6.1.2 Orderly transfers of power

6.1.2a

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

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

Current Year Score: 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: 1

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: 4

2021

Economist Intelligence

6.1.6 Government territorial control

6.1.6a

Does the government's authority extend over the full territory of the country?

Yes = 1, No = 0

Current Year Score: 1

2021

Economist Intelligence

6.1.7 International tensions

6.1.7a

Is there a threat that international disputes/tensions could have a negative effect?

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

Current Year Score: 2

2021

Economist Intelligence

6.2 SOCIO-ECONOMIC RESILIENCE

6.2.1 Literacy

6.2.1a

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

Input number

Current Year Score: 99.8

2010

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: 0.8

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

2017

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: 1

While an exact percentage of informal sector employment in Kazakhstan as of 2020 is unavailable on the websites of the International Labor Organization (including the ILOSTAT database), the World Bank, or Kazakhstan's state Statistics Committee, an International Monetary Fund (IMF) working paper from 2018 estimated that the informal sector/shadow economy accounted for an average of 38.88% of employment over the period from 1991 to 2015. [1, 2, 3, 4, 5] The IMF reports the percentage for 2015 as 32.82%.

[1] International Labour Organization. "Statistics on the informal economy". [<https://ilostat.ilo.org/topics/informality>]. Accessed 8 August 2020.

[2] International Labour Organization. "Kazakhstan". [https://www.ilo.org/gateway/faces/home/ctryHome?locale=EN&countryCode=KAZ&_adf.ctrl-state=mds5egv4r_14]. Accessed 8 August 2020.

[3] World Bank Open Data. [<https://data.worldbank.org>]. Accessed 8 August 2020.

[4] State Statistics Committee of the Republic of Kazakhstan. [<https://stat.gov.kz>]. Accessed 8 August 2020.

[5] International Monetary Fund. 24 January 2018. "Shadow economies around the world: What did we learn over the last 20 years?" [<https://www.imf.org/~media/Files/Publications/WP/2018/wp1817.ashx>]. Accessed 8 August 2020.

6.2.3c

Coverage of social insurance programs (% of population)

Scored in quartiles (0-3, where 3=best)

Current Year Score: 2

2016, or latest available

World Bank; Economist Impact calculations

6.2.4 Public confidence in government

6.2.4a

Level of confidence in public institutions

Input number

Current Year Score: 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: 0.28

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: 57.54

2019

World Bank

6.4.2 Land use

6.4.2a

Percentage point change in forest area between 2006–2016

Input number

Current Year Score: 0.11

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: 73.15

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: 620.9

2019

WHO

6.5.1c

Population ages 65 and above (% of total population)

Input number

Current Year Score: 7.65

2019

World Bank

6.5.1d

Prevalence of current tobacco use (% of adults)

Input number

Current Year Score: 24.4

2018

World Bank

6.5.1e

Prevalence of obesity among adults

Input number

Current Year Score: 21

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: 95.63

2017

UNICEF; Economist Impact

6.5.2b

Percentage of homes with access to at least basic sanitation facilities

Input number

Current Year Score: 97.87

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: 476.82

2018

WHO Global Health Expenditure database

6.5.4 Trust in medical and health advice

6.5.4a

Trust medical and health advice from the government

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

Current Year Score: 1

2018

Wellcome Trust Global Monitor 2018

6.5.4b

Trust medical and health advice from medical workers

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

Current Year Score: 1

2018

Wellcome Trust Global Monitor 2018