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

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

1.1 Antimicrobial resistance (AMR) 4
1.2 Zoonotic disease 8
1.3 Biosecurity 13
1.4 Biosafety 22
1.5 Dual-use research and culture of responsible science 25
1.6 Immunization 28

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

2.1 Laboratory systems strength and quality 29
2.2 Laboratory supply chains 32
2.3 Real-time surveillance and reporting 33
2.4 Surveillance data accessibility and transparency 35
2.5 Case-based investigation 41
2.6 Epidemiology workforce 44

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

3.1 Emergency preparedness and response planning 46
3.2 Exercising response plans 49
3.3 Emergency response operation 51
3.4 Linking public health and security authorities 53
3.5 Risk communications 54
3.6 Access to communications infrastructure 57
3.7 Trade and travel restrictions

**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

4.2 Supply chain for health system and healthcare workers

4.3 Medical countermeasures and personnel deployment

4.4 Healthcare access

4.5 Communications with healthcare workers during a public health emergency

4.6 Infection control practices and availability of equipment

4.7 Capacity to test and approve new medical countermeasures

**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

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

5.3 International commitments

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

5.5 Financing

5.6 Commitment to sharing of genetic and biological data and specimens

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

6.1 Political and security risk

6.2 Socio-economic resilience

6.3 Infrastructure adequacy

6.4 Environmental risks

6.5 Public health vulnerabilities
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, but there is insufficient evidence that it covers surveillance, detection, and reporting = 1, No evidence of an AMR plan = 0

Current Year Score: 0

There is insufficient evidence that Uzbekistan has a national antimicrobial resistance (AMR) plan for the surveillance, detection, and reporting of priority AMR pathogens. The World Health Organization’s (WHO) Library of National Action Plans does not contain Uzbekistan’s national AMR plan, although it is reported in the country self-assessment available at the Global Database for the Tripartite Antimicrobial Resistance maintained by the Food and Agriculture Organization (FAO) of the United Nations (UN), the World Organisation for Animal Health (OIE), and the WHO that Uzbekistan has developed a national AMR action plan [1, 2]. According to a regional factsheet for Central Asia published by the United States Centers for Disease Control and Prevention (CDC) in May 2019, the Ministry of Health of Uzbekistan has established a National Center for Antimicrobial Resistance, which is responsible for conducting AMR surveillance, antimicrobial susceptibility testing, and data reporting; however, the factsheet does not mention whether Uzbekistan has an AMR plan [3]. Furthermore, a news release from March 2019 reported that the Cabinet of Ministers of Uzbekistan had drafted a decree on the 2019-2023 National AMR Plan, but there is no evidence on the website of the Ministry of Health or in Uzbekistan's national legal database that the decree has been adopted [4, 5, 6]. There is no evidence regarding the National Center for Antimicrobial Resistance on the website of the Ministry of Health [5].


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
Uzbekistan has a national laboratory system that tests for all 7+1 World Health Organization (WHO) priority antimicrobial resistance (AMR) pathogens. The 2020 Central Asian and European Surveillance of Antimicrobial Resistance (CAESAR) report contains evidence on nine pathogens tested for in Uzbekistan, including four of the WHO priority pathogens (Escherichia coli, Klebsiella pneumoniae, Salmonella species, and Streptococcus pneumoniae), as well as Pseudomonas aeruginosa, Acinetobacter spp., Staphylococcus aureus, Enterococcus faecalis, and Enterococcus faecium [1]. The report also reveals that Uzbekistan has seven laboratories testing for AMR pathogens [1]. There is additional evidence, found in medical journal articles, for laboratories in Uzbekistan that test for Shigella spp., N. gonorrhoeae, and Mycobacterium tuberculosis pathogens [2, 3, 4]. The Republican Center for Epidemiology, Microbiology, Infectious, and Parasitic Diseases operates under the Ministry of Health of Uzbekistan, but there is no evidence on what tests the center conducts [5].


1.1.1c

Does the government conduct environmental detection or surveillance activities (e.g., in soil, waterways) for antimicrobial residues or AMR organisms?
Yes = 1, No = 0

Current Year Score: 0

There is insufficient evidence that the Uzbek government conducts environmental detection or surveillance activities for antimicrobial residues (AMR) or AMR organisms. Uzbekistan’s environmental agency is the State Committee for Ecology and Environmental Protection [1, 2]. There is evidence that the Committee conducts monitoring activities in both biotic and abiotic components of the environment, including atmospheric air, the ozone layer, surface- and groundwater, land, subsoil, flora, and fauna; however, AMR organisms or residues are not mentioned in the Committee’s reporting on monitoring activity [3]. The 2016-2020 Environmental Monitoring Plan, adopted by the Cabinet of Ministers in August 2016, does not include detection or surveillance activities for antimicrobial residues or AMR organisms [4]. Furthermore, according to the Centres for Disease Control and Prevention (CDC) Regional Factsheet for Central Asia (published in May 2019), the Ministry of Health of Uzbekistan has established a National Center for Antimicrobial Resistance, which is responsible for conducting AMR
surveillance, antimicrobial susceptibility testing, and data reporting [5]. There is no specification on whether this Center conducts environmental detection or surveillance activities for AMRs or AMR organisms [5]. Moreover, there is no evidence in this regard on the website of the Ministry of Health [6]. The World Health Organization’s (WHO) library of national action plans does not contain a reference to Uzbekistan’s national AMR plan [7].

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

Uzbekistan has a regulation requiring prescriptions for antibiotic use for humans, but there is evidence of gaps in enforcement. Article 6 of the Law on Medicines and Pharmaceutical Activity (adopted January 2016, last amended July 2020) states that at least once a year, the Ministry of Health approves the list of medicines that are dispensed without a prescription [1]. Article 14 of the same law states that the website of the Ministry of Health must include information on medicines dispensed with a prescription, but does not state the categories of medicines that require a prescription [1]. Article 26 of a Cabinet of Ministers’ decree on Measures for the Implementation of the Law on Medicines (adopted April 2017, last amended July 2020) bans the display of prescription medicines and medical devices, as well as information about them, in publicly visible places at a pharmacy [2]. Article 31 of the same decree states that upon dispensing a prescription medical product, its international non-proprietary name should be indicated [2]. The current list of medicines dispensed without a prescription was approved by the minister of health in December 2019 and does not list common generic antibiotics—such as amoxicillin, azithromycin, cepalexin, levofloxacin, trimethoprim, and sulfamethoxazole—among the 1032 medicines; however, it does list metronidazole [3]. News articles from November 2018 and March 2019 reveal that the sale of antibiotics and other prescription drugs without a prescription is widespread in Uzbekistan, which the national antimicrobial resistance (AMR) plan—being developed with support from the World Health Organization (WHO), Food and Agriculture Organization (FAO), and World Organization of ANimal Health (OIE)—aims to address. [4, 5]
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

Uzbekistan has a regulation requiring prescriptions for antibiotics use for animals, but there is evidence of gaps in enforcement. Article 19 of the current edition of the Law on Veterinary Medicine (adopted December 2015, last amended November 2019) states that animal owners must not use veterinary medicinal products and feed additives that are not registered by the State Veterinary Committee [1]. However, the law contains no provisions on prescriptions for use of antibiotics [1]. A 2017 decree adopted by the Cabinet of Ministers establishes the requirements for veterinary medicines and feed additives safety, stating that the manufacture of veterinary medicines is carried out at pharmacies with a prescription from veterinarians [2]. Furthermore, Article 30 of the same decree states that prescription-only medicines, including antibiotics, should be dispensed only if the customer presents a valid prescription [2]. News articles from November 2018 and March 2019 reveal that the sale of antibiotics and other prescription drugs for animals without a prescription is widespread in Uzbekistan, and that in order to address this a national AMR plan is being developed, with support from the World Health Organization (WHO), the Food and Agriculture Organization (FAO) of the United Nations (UN), and the World Organization for Animal Health (OIE) [3, 4].

1.2 ZOONOTIC DISEASE

1.2.1 National planning for zoonotic diseases/pathogens

1.2.1a
Is there national legislation, plans, or equivalent strategy documents on zoonotic disease?
Yes = 1, No = 0

Current Year Score: 0

Uzbekistan does not have national legislation, plans, or equivalent strategy documents on zoonotic disease. There is no evidence on the websites of the Ministry of Health and the Ministry of Agriculture websites that Uzbekistan has legislation, plans, or equivalent strategy documents which discuss zoonotic diseases as a risk to human health and guide strategy and policy on zoonotic disease [1, 2]. In addition, there is no evidence of such documents in the national legal database either [3]. There are sanitary norms and rules on infectious diseases (adopted 2004), published on the old website of the Ministry of Health, that consider zoonotic diseases, like hemorrhagic fevers (Ebola, Lassa, Marburg, and Machupo) [4]. However, this document is not a strategy or plan and it is not available either on the new website of the Ministry of Health or on the national legal database [1, 3, 4].


1.2.1b
Is there national legislation, plans or equivalent strategy document(s) which includes measures for risk identification and reduction for zoonotic disease spillover events from animals to humans?
Yes = 1, No = 0

Current Year Score: 0

There is no national legislation, plans, or equivalent strategy document(s) that includes measures for risk identification and reduction for zoonotic disease spillover events from animals to humans in Uzbekistan. The Ministry of Health and the Ministry of Agriculture websites do not contain evidence that Uzbekistan has national legislation, plans, or equivalent strategy documents on zoonotic disease that include measures for risk identification and reduction for spillover events [1, 2]. There is no evidence on such documents in the national legal database either [3]. Furthermore, there are no recent (published in 2010 or later) studies and articles on risk identification and reduction of zoonotic disease and reduction in Uzbekistan [4].

1.2.1c
Is there national legislation, plans, or guidelines that account for the surveillance and control of multiple zoonotic pathogens of public health concern?
Yes = 1, No = 0

Current Year Score: 0

There is insufficient evidence that Uzbekistan has a plan that accounts for the surveillance and control of multiple zoonotic pathogens of public health concern. The Decree of the Cabinet of Ministers on the Establishment of the Unified System for Monitoring, Information Exchange, and Forecasting Natural, Technological, and Environmental Emergencies (adopted December 2017, last amended August 2020) accounts for the surveillance and control of five zoonotic diseases: plague, yellow fever, Crimean-Congo hemorrhagic fever, and anthrax [1]. The decree specifies the organizational-functional structure of the unified system for monitoring, information exchange, and forecasting emergencies, its main objectives, composition, functioning procedure, technical bases, and financing. The Ministry of Health is designated as the state authority responsible for the surveillance and control of these diseases [1]. There is no further evidence on details of a plan for surveillance and control on the websites of the Ministry of Health or Ministry of Agriculture [2,3].


1.2.1d
Is there a department, agency, or similar unit dedicated to zoonotic disease that functions across ministries?
Yes = 1, No = 0

Current Year Score: 0

There is no evidence of a department, agency, or similar unit dedicated to zoonotic disease that functions across ministries in Uzbekistan. The Ministry of Health of Uzbekistan does not have a department or unit dedicated to zoonotic disease, and neither does the Ministry of Agriculture.[1, 2, 3, 4]. The authority responsible for animal health, the State Committee for Veterinary Medicine and Livestock Development, is an autonomous government entity [5, 6]. There is no further evidence of an agency dedicated to zoonotic disease that functions across ministries on the government website [7].

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: 1

Uzbekistan has a national mandatory mechanism for livestock owners to conduct and report on disease surveillance to a central government agency. Article 19 of the 2015 edition of the Law on Veterinary Medicine (last amended November 2019) states that livestock owners should take measures to prevent animal diseases, treat infected animals, and perform slaughter or extermination when prescribed by the government agency [1]. The same article of the same law states that livestock owners should immediately inform the state veterinary service that is operational in their region of a sudden decline or unusual behavior of animals [1]. The websites of the central government agency and the State Committee for Veterinary Medicine and Livestock Development have a section on regional offices, with details and contact information (legal address, phone and fax numbers, email, reception hours, and helpline) for each of the 15 offices [2].


1.2.2b

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

Yes = 1, No = 0

Current Year Score: 0

There is insufficient evidence that Uzbekistan has any legislation and/or regulations that safeguard the confidentiality of information generated through surveillance activities for animals (for owners). Article 14 of the Law on Personal Data (adopted July 2019, revised January 2021), which applies to processing personal data related to professional and commercial activities, requires the consent of the owner for sharing personal data for purposes other than stated during collection [1]. Article 28 of the same law states that people having access to personal information (database operators) are obliged not to disclose or share such information without the consent of the owner [1]. Article 11 of the 2015 edition of the Law on Veterinary Medicine (last amended November 2019) states that the state veterinary service (the State Committee for Veterinary Medicine and Livestock Development of Uzbekistan) requires legal entities and individuals to take measures preventing the spread of animal diseases, as well as provide information for ascertaining the epizootic situation [2]. The law does not guarantee the confidentiality of surveillance information, but in Article 18 it states that animal owners are entitled to appeal illegal decisions and actions (inaction) of state officials [2].
Does the country conduct surveillance of zoonotic disease in wildlife (e.g., wild animals, insects, other disease vectors)?

Yes = 1, No = 0

Current Year Score: 0

There is no evidence that surveillance of zoonotic disease in wildlife is conducted in Uzbekistan. Uzbekistan's environmental and wildlife agency is the State Committee for Ecology and Environmental Protection [1,2]. There is evidence that the Committee conducts monitoring activities in both biotic and abiotic components of the environment, including atmospheric air, the ozone layer, surface- and groundwater, flora, and fauna [3]. However, there is no evidence, including in Committee surveillance reports and in the Committee's statute (adopted 2019, last amended 2020), that it is responsible for or practically engaged in surveillance of zoonotic diseases via sampling of wildlife populations or monitoring diseases present in wildlife [3,4]. The 2016-2020 Environmental Monitoring Plan, adopted by the Cabinet of Ministers in August 2016 (last amended June 2020), does not include detection or surveillance activities for zoonotic diseases [5]. Zoonotic diseases are not mentioned in the Cabinet of Ministers' Decree on Streamlining the Environmental Monitoring System of Uzbekistan, adopted in September 2019 [6]. Furthermore, there is no evidence on environmental surveillance for zoonotic diseases in wildlife on the websites of the Ministry of Health and the Ministry of Agriculture [7,8].


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: 40.09

2019

OIE WAHIS database

1.2.4b
Number of veterinary para-professionals per 100,000 people
Input number

Current Year Score: 19.36

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

Uzbekistan’s national plan on zoonotic disease or other legislation and regulations do not include mechanisms for working with the private sector in controlling or responding to zoonoses. The decree of the Cabinet of Ministers on the Establishment of the Unified System for Monitoring, Information Exchange, and Forecasting Natural, Technological, and Environmental Emergencies (adopted December 2017, last amended August 2020) accounts for public control and response to zoonotic diseases and specifies the structure and main objectives of the unified system for monitoring, forecasting, and information
However, it does not outline mechanisms of cooperation with the private sector in controlling or responding to zoonoses [1]. The website of the Ministry of Health has a section on public-private partnership, thereby revealing that a presidential decree of April 2019 is the main legal basis for public-private cooperation in the field of healthcare [2, 3]. However, the decree (“On Measures to Develop Public-Private Cooperation in the Field of Healthcare”) does not cover zoonoses, and concepts published on the Ministry websites do not include cooperation on zoonotic diseases [3, 4]. There is no further evidence on the websites of the Ministry of Agriculture and Veterinary Committee [5, 6].


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 Uzbekistan has in place a record, updated within the past five years, of the facilities in which especially dangerous pathogens and toxins are stored or processed, including details on inventories and inventory management systems of those facilities. The 2018-2021 National Action Plan for Implementation of International Agreements on Chemical, Biological, Radiological, and Nuclear Security (adopted November 2018, last amended April 2020) reveals that reports to reduce biological threats in facilities working with pathogens of Categories A and B are prepared annually [1]. Article 18 of the Presidential Decree on Comprehensive Measures for Biotechnology Development and Enhancement of the National Biological Security System (adopted November 2020) envisages the introduction of unified criteria and methodological bases for the determination and categorization of biological risk levels, as applicable to facilities, territories, and natural phenomena [2]. In addition, Article 9 of Annexure 1 of the same decree ("Comprehensive Action Plan for Biotechnology Development and Enhancement of the National Biological Security System in 2020-2024") states that by 1 November 2021, state control over biological security will be enhanced, entailing increased efficiency of control over potentially dangerous biological objects and strengthened accountability for violation of biosecurity rules for potentially dangerous biological objects (placement, design, construction, operation, conservation, conversion, and demolition), illegal circulation of biological agents, materials, and genetically modified organisms (GMOs), as well as theft or extortion of
biological materials [2]. Articles 45 and 46 of the same annexure state that the existing biological collections will be inventoried by December 1, 2021, as a result of which a unified registry and e-database will be launched; by February 1, 2021, measures for reorganizing large biological collections into national bio-resource centers will be implemented [2]. There is no further evidence on the websites of the Ministry of Health, Agriculture, and Defense [3, 4, 5]. As a signatory state to the Biological Weapons Convention (BWC) (January 26, 1996), Uzbekistan has submitted 21 Confidence Building Measures reports to the United Nations Office at Geneva, of which the first was in 1998 and the latest was in 2020, but these reports are not publicly accessible [6]. There is no further evidence on the Verification Research, Training, and Information Centre (VERTIC) BWC legislation database [7].


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

Uzbekistan does not yet have biosecurity legislation or regulations, but such legislation is being drafted. The 2018-2021 National Action Plan for Implementation of International Agreements on Chemical, Biological, Radiological, and Nuclear Security (adopted by the Cabinet of Ministers in November 2018, last amended April 2020), envisages the development of biosecurity and biosafety legislation [1]. Article 9 of Annexure 1 of a recent regulation, the presidential decree on "Comprehensive Measures for Biotechnology Development and Enhancement of the National Biological Security System" (adopted in November 2020), states that as a result of enhanced state control over biological security, accountability for violation of biosecurity rules at potentially dangerous biological facilities, including rules related to placement, design, construction, operation, conservation, conversion, and demolishment, will be strengthened, and control over the illegal circulation of biological agents, materials, and genetically modified organisms (GMOs), as well as theft or extortion of biological materials, will be enhanced [2]. Article 12 of the same annexure states that mechanisms for protecting information systems at facilities housing dangerous pathogens will be introduced and implemented [2]. Article 19 of the decree states that in conjunction with other ministries and agencies, the Ministry of Health will finalize the bill on biological security by March 1, 2021 [2]. The same article requires that the draft law follows provisions stated in the decree and provides for the following two mechanisms: ensuring safety in the field of genetic engineering, including establishment and operation of a
national system for assessing hazards of genetically modified organisms; financing projects aimed at biological risk mitigation [2]. However, no information on the draft legislation was found on the websites of the Ministry of Health and State Committee for Industrial Safety at the time of research in February 2021 [3, 4]. There is no further evidence on the websites of the Ministry of Agriculture and Ministry of Defense [5, 6]. As a signatory state to the Biological Weapons Convention (BWC) (January 26, 1996), Uzbekistan has submitted 21 Confidence Building Measures reports, of which the first were done in 1998 and the latest in 2020, to the United Nations (UN)Office at Geneva, but these reports are not publicly accessible [7]. There is no further evidence on the Verification Research, Training, and Information Centre (VERTIC) BWC legislation database [8].


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

Uzbekistan does not have an established agency responsible for the enforcement of biosecurity regulations. Article 3 of the 2018-2021 National Action Plan for Implementation of International Agreements on Chemical, Biological, Radiological, and Nuclear Security (adopted November 2018, last amended April 2020) states that the responsibility for its timely and effective implementation lies with the State Committee for Industrial Safety [1]. Article 78 of Annexure 1 of the Presidential Decree on Comprehensive Measures for Biotechnology Development and Enhancement of the National Biological Security System (adopted November 2020) lists the State Committee for Industrial Safety among the state agencies along with the Ministries of Health and Innovation, the State Committee for Ecology, and the National Academy of Sciences responsible for development and introduction of modern methods, means, and technologies for protecting the population and the environment from biological risks [2]. The statute of the Committee (adopted February 2019, last amended April 2020) states that it ensures the fulfillment of Uzbekistan’s obligations under international treaties in the fields of peaceful use of nuclear energy, the prohibition of chemical, bacteriological (biological), and toxin weapons, as well as reducing the risks of exposure to chemical, biological, radiological, and nuclear materials [3]. Moreover, Article 11 of the statute lists eight functional areas of the Committee in the fields of radiological, nuclear, and industrial safety, among which are coordination of the implementation of the national legislation, control over facilities and production sites, licensing, expertise and accreditation, international cooperation, and professional development [3]. The website of the Committee lists monitoring the
implementation of the Convention on the Prohibition of Chemical and Bacteriological Weapons among its activities [4]. However, there is currently no evidence that Uzbekistan has national biosecurity legislation in place; there is no such evidence in the official legislative database; in the Verification Research, Training, and Information Centre (VERTIC) Biological Weapons Convention (BWC) legislation database; or on the websites of the Ministry of Healthcare, the Ministry of Agriculture, the Ministry of Defense, or the State Committee for Industrial Safety [5, 6, 7, 8, 9, 10]. As a signatory state to the BWC (January 26, 1996), Uzbekistan has submitted 21 Confidence Building Measures reports to the United Nations (UN) Office at Geneva, of which the first was in 1998 and the latest was in 2020, but these reports are not publicly accessible [11].


1.3.1d
Is there public evidence that shows that the country has taken action to consolidate its inventories of especially dangerous pathogens and toxins into a minimum number of facilities?

Yes = 1, No = 0

Current Year Score: 0

There is no evidence that Uzbekistan has taken action to consolidate its inventories of especially dangerous pathogens and toxins into a minimum number of facilities, but such consolidation is planned. The 2018-2021 National Action Plan for Implementation of International Agreements on Chemical, Biological, Radiological, and Nuclear Security (adopted November 2018, last amended April 2020) reveals that reports to reduce biological threats in facilities working with pathogenic microorganisms of first and second categories are prepared annually [1]. Article 46 of Annexure 1 of the presidential decree on Comprehensive Measures for Biotechnology Development and Enhancement of the National Biological Security System, adopted in November 2020, states that large biological collections in the country will be inventoried by February 1, 2021, based on which the Cabinet of Ministers will take measures to reorganize these into national bioresource centers [2]. However, no information on such measures was found on the websites of the Ministry of Health, the State Committee for
Industrial Safety (charged with enforcement of biosecurity regulations under the November 2020 decree), or the Government at the time of research in February 2021 [3, 4, 5]. There is no further evidence on the webistes of the Ministry of Agriculture and Ministry of Defense [6, 7]. As a signatory state to the Biological Weapons Convention (BWC) (January 26, 1996), Uzbekistan has submitted 21 Confidence Building Measures reports, of which the first in 1998 and the latest in 2020, to the United Nations (UN) Office at Geneva, but these reports are not publicly accessible. [8] There is no further evidence in this regard on the Verification Research, Training, and Information Centre (VERTIC) BWC legislation database [9].


1.3.1e

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

Yes = 1 , No = 0

Current Year Score: 0

There is insufficient evidence of in-country capacity to conduct polymerase chain reaction (PCR)-based diagnostic testing for anthrax and Ebola that would preclude culturing a live pathogen in Uzbekistan. The Scientific-Research Institute for Epidemiology, Microbiology, and Infectious Diseases of the Ministry of Health has five laboratories, among which there is a PCR laboratory [1]. The Reference Laboratory of the Scientific-Research Institute for Virology also conducts PCR-based diagnostic testing [2]. Article 5.6 of a 2000 ministerial decree on sanitary-medical control at state border passes states that virological and serological tests for hemorrhagic fevers, including Lassa, Ebola, and Marburg, are conducted at specialized laboratories where appropriate precautionary measures are in place. The list of these laboratories is determined by the Ministry of Health [3]. Anthrax is listed among hazardous diseases, as specified by government decrees of 1997 and 1998, but there is no statement on what tests should be conducted for its detection [4, 5]. The Ministry of Health has published a list of laboratories that conduct PCR testing for COVID-19, but there are no such lists for other diseases, including anthrax and Ebola [6, 7]. There is no further evidence on the website of the Ministry of Agriculture [8].

1.3.2 Biosecurity training and practices

1.3.2a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence that Uzbekistan requires biosecurity training, using a standardized and required approach, for personnel working in facilities housing especially dangerous pathogens, toxins, or biological materials with pandemic potential. Article 29 of Annexure 1 of the 2018-2021 National Action Plan for Implementation of International Agreements on Chemical, Biological, Radiological, and Nuclear Security (adopted November 2018, last amended April 2020) states that with the aim to enhance the experience and skills of the managers, employees, and service-providers at potentially hazardous facilities, practical exercises will be conducted [1]. Article 44 of the same annexure states that training and seminars on the prevention and response to natural and technological disasters will be conducted for personnel working at ministries and other state agencies [1]. Moreover, Article 73 of Annexure 1 of the presidential decree on "Comprehensive Measures for Biotechnology Development and Enhancement of the National Biological Security System" (adopted November 2020) mandates development of legislation for personnel development in the field of biosecurity by May 1, 2022. The regulation will encompass mechanisms for training specialists (toxicologists, pathologists, epidemiologists, bacteriologists, virologists, parasitologists, entomologists, and epizootiologists), professional development of personnel working at facilities housing potentially hazardous biological materials, including the administrative-technical staff, development of curricula on biological risk analysis and risk management technologies, and interagency cooperation entailing training and exercises on biological emergency response [2]. Article 17 of the statute of the Industrial Safety Committee (adopted February 2019, last amended April 2020) states that the Committee tests the knowledge of safety and technological rules and regulations of personnel at potentially hazardous facilities as well as carries out their training and retraining [3]. However, there is no evidence on whether the training is required or standardized [3, 4]. There is no further evidence on the Ministry of Health, Ministry of Agriculture, and Ministry of Defense websites [5, 6, 7]. As a signatory state to the Biological Weapons Convention (26 January 1996), Uzbekistan has submitted 21 Confidence Building Measures reports to the United Nations (UN) Office at Geneva, of which the first was in 1998 and the latest was in 2020, but these reports are not publicly accessible [8]. There is no further...
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: 1

Uzbekistan does not have regulations or licensing conditions specifying that security and other personnel with access to especially dangerous pathogens, toxins, or biological materials with pandemic potential are subject to drug testing and background checks, but there are regulations on psychological and mental fitness checks.

The Decree on Adopting the List of Medical and Psychiatric Contraindications for Certain Professional Activities and Professions associated with Hazards (adopted 2014, last amended 2020) lists personnel dealing with infectious substances as being subject to mandatory psychological fitness checks. Annexure 2 of the decree states that the examinations are carried out by a health commission, with a frequency of at least once every five years [1].

In addition, Article 17 of the Statute of the State Committee for Industrial Safety (adopted 2019, last amended 2020) states that the State Committee for Industrial Safety tests the knowledge of safety and technological rules and regulations of personnel at potentially hazardous facilities, but it does not mention drug testing, background checks, or psychological or mental fitness checks.
mental fitness checks [2, 3]. The Order of the Minister of Health on Adopting the List of Jobs Disallowed for People Not Having Passed Medical Examination or Posing Danger to Others by Tuberculosis Infection (adopted 2014), which lists jobs with mandatory medical examinations, does not include personnel with access to especially dangerous pathogens, toxins, or biological materials with pandemic [4]. According to Article 73 of Annexure 1 of the Presidential Decree on Comprehensive Measures for Biotechnology Development and Enhancement of the National Biological Security System (adopted November 2020), comprehensive legislation on biosecurity personnel is under development, due by May 1, 2022 [5]. The regulation will cover mechanisms for training specialists in the field, professional development of personnel working at facilities housing potentially hazardous biological materials, development of curricula on biological risk analysis and risk management technologies, and interagency cooperation, including training and exercises on biological emergency response [5]. There is no further evidence on the websites of the Ministry of Health, Agriculture, and Defense [6, 7, 8]. As a signatory state to the Biological Weapons Convention (BWC) (January 26, 1996), Uzbekistan has submitted 21 Confidence Building Measures reports, of which the first in 1998 and the latest in 2020, to the United Nations (UN) Office at Geneva, but these reports are not publicly accessible [9]. There is no further evidence on the Verification Research, Training, and Information Centre (VERTICO BWC legislation database [10].


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
Uzbekistan has national regulations on the safe and secure transport of infectious substances that are included in Categories A and B. The Rules for Road Transportation of Hazardous Cargo were adopted by a decree of the Cabinet of Ministers in 2011 and last amended in May 2020 [1]. The regulation pertains to safe and secure transportation of nine classes of hazardous cargo, including Categories A and B toxic and infectious substances. Provisions for packaging, handling, signage, and delivery are stated [1]. As specified in Annex 2 of the decree, the toxic and hazardous substances include the following two categories: toxic (poisonous) substances that can cause poisoning by inhalation (vapor, dust), ingestion, or contact with skin; and substances and materials containing pathogens that are dangerous to humans and animals [1]. The order of the Head of the State Inspectorate for Control of Flight Safety, "On the Rules for Air Transportation of Hazardous Cargo" (adopted September 2007, last amended April 2020) follows the same classification of hazardous substances, stating and defining two categories of infectious substances [2].


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

Uzbekistan has legislation and regulations to oversee the cross-border transfer and end-user screening of especially dangerous pathogens, toxins, and pathogens with pandemic potential. The Law on Export Control (adopted August 2004, last amended September 2017) pertains to the cross-border transfer of nuclear, chemical, and bacteriological (biological) materials, including pathogens and strains of especially dangerous infections [1]. Article 12 of the Law states that upon transferring goods and services that are subject to export control, natural and legal persons are obliged to obtain a permission of export control; provide, at the request of the authorized body (the Ministry of Foreign Trade) and other state bodies, documentation on the exported goods; and notify the authorized body about the possibility of using the goods exported, information, and research findings to create weapons of mass destruction [1]. Moreover, Article 173 of the order of the Head of the State Inspectorate for Control of Flight Safety, "On the Rules for Air Transportation of Hazardous Cargo" (adopted September 2007, last amended April 2020) states that labels on the transported hazardous cargo should include, among others, the names of departure and destination airports, the names of consignor and consignee, as well as their postal addresses [2]. Article 316 of the same order states that the consignee must arrive at the airport at the time indicated by the carrier or his authorized agent. The hazardous cargo is delivered to the consignee immediately after unloading from the aircraft, without entering the airport warehouses and without weighing. If the container or the package is damaged, the cargo is weighed in the warehouse of the consignee in the presence of the carrier [3].
1.4 BIOSAFETY

1.4.1 Whole-of-government biosafety systems

1.4.1a Does the country have in place national biosafety legislation and/or regulations?

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence that Uzbekistan has national biosafety legislation and regulations. Article 21 of the Law on Sanitary-Epidemiological Well-being of the Population (adopted August 2015, last amended January 2021) states that legal entities and individuals dealing with chemicals and biological agents and materials are obliged to comply with the sanitary rules, norms, and hygiene standards for transportation, storage, use, disposal, and burial of these materials [1]. Article 18 of the same law states that the developers of regulatory and technical documentation for chemicals and biological agents are obliged to submit sound proposals on sanitary and epidemic safety standards, as well as methods for monitoring, neutralization, and disposal of hazardous products and waste, to the Chief State Sanitary Doctor of Uzbekistan [1]. However, this law does not provide any substantive biosafety rules [1]. A regulation on licensing procedures for sanitary-epidemiological safety was adopted by decree of the Cabinet of Ministers in April 2016 [2]. The decree has four annexes, each with an addendum, regulating issuance of permits for the import and production of biologically active substances, food additives, chemicals, biological agents and materials, polymers and plastics, and perfume and cosmetics [2]. However, the decree does not outline any biosafety rules [2]. Article 16 of Annex 1 of the 2018-2021 National Action Plan for Implementation of International Agreements on Chemical, Biological, Radiological, and Nuclear Security (adopted November 2018, last amended April 2020) envisages systematization of a national legal framework on biosafety, training of biosafety trainers, modernization of training centers and laboratories, development of mechanisms for the management of biological waste, exchange of experience with developed countries, and training of specialists on biological waste management [3]. However, the plan does not outline any biosafety rules [3]. There is no further evidence on the websites of the Ministry of Health and Agriculture websites, the national legal database, or the Verification Research, Training, and Information Centre (VERTIC) database that Uzbekistan has legislation on the prevention of accidents that involve the release of harmful biological substances [4, 5, 6, 7]. As a signatory state to the Biological Weapons Convention (BWC)(January 26, 1996), Uzbekistan has submitted 21 Confidence Building Measures reports, of which the first in 1998 and the latest in 2020, to the United Nations (UN) Office at Geneva, but these reports are not publicly accessible [8].


1.4.1b

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

Yes = 1, No = 0

Current Year Score: 0

There is no established agency responsible for the enforcement of biosafety legislation in Uzbekistan. Article 3 of the 2018-2021 National Action Plan for Implementation of International Agreements on Chemical, Biological, Radiological, and Nuclear Security (adopted November 2018, last amended April 2020) states that the responsibility for timely and effective implementation of the National Action Plan lies with the State Committee for Industrial Safety. [1] Article 78 of Annex 1 of the presidential decree on "Comprehensive Measures for Biotechnology Development and Enhancement of the National Biological Security System" (adopted November 2020) lists the State Committee for Industrial Safety among the state agencies - along with the Ministries of Health and Innovation, the State Committee for Ecology, and the National Academy of Sciences - responsible for the development and introduction of modern methods, means, and technologies for protecting the population and the environment from biological risks. [2] The statute of the Committee (adopted February 2019, last amended April 2020) states that it reduces the risks of exposure to chemical, biological, radiological, and nuclear materials. [3] Article 11 of the statute lists eight functional areas of the Committee in the fields of radiological, nuclear, and industrial safety, among which are coordination of the implementation of the national legislation, control over facilities and production sites, licensing, expertise and accreditation, international cooperation, and professional development. [3] However, as currently there is no legislation on biosafety in place, there is no evidence that the Committee is responsible for enforcement of requirements for the prevention of accidents that involve the release of harmful biological substances and protection of the people who work with these substances. [4, 5, 6, 7] As a signatory state to the Biological Weapons Convention (26 January 1996), Uzbekistan has submitted 21 Confidence Building Measures reports, of which the first in 1998 and the latest in 2020, to the United Nations Office at Geneva, but these reports are not publicly accessible. [8]

1.4.2 Biosafety training and practices

1.4.2a

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

Yes = 1, No = 0

Current Year Score: 0

There is no evidence that Uzbekistan requires biosafety training, using a standardized, required approach, such as through a common curriculum or a train-the-trainer program, for personnel working in facilities housing or working with especially dangerous pathogens, toxins, or biological materials with pandemic potential. Article 16 of Annex 1 of the 2018-2021 National Action Plan for Implementation of International Agreements on Chemical, Biological, Radiological, and Nuclear Security (adopted November 2018, last amended April 2020) envisages systematization of the national legal framework on biosafety, training of biosafety trainers, modernization of training centers and laboratories, exchange of experience with developed countries, and training of specialists on biological waste management [1]. Article 17 of the statute of the Industrial Safety Committee (adopted February 2019, last amended April 2020) states that the Committee tests the knowledge of safety and technological rules and regulations of personnel at potentially hazardous facilities, as well as carries out their training and retraining [2]. However, there is no evidence on whether these are required or standardized [2, 3]. There is no further evidence on the websites of the Ministry of Health, Ministry of Agriculture, and Ministry of Defense [4, 5, 6]. As a signatory state to the Biological Weapons Convention (BWC) (January 26, 1996), Uzbekistan has submitted 21 Confidence Building Measures reports to the United Nations (UN) Office at Geneva, of which the first was in 1998 and the latest was in 2020, but these reports are not publicly accessible [7]. There is no further evidence on the Verification Research, Training, and Information Centre (VERTIC) BWC legislation database [8].


1.5 DUAL-USE RESEARCH AND CULTURE OF RESPONSIBLE SCIENCE

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

1.5.1a

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

Yes = 1, No = 0

Current Year Score: 0

There is no publicly available evidence that Uzbekistan 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. Annex 2 of the Presidential Decree on Comprehensive Measures for Biotechnology Development (adopted November 2020) includes an annexure on biotechnology research, but there is no reference to state oversight over such research [1]. A 2018 presidential decree ("On Measures to Enhance Effectiveness of the System for Scientific and Innovative Activity Integration") states that a scientific-technical center of the Academy of Sciences conducts research and development for the production of military and dual-use goods [2]. However, the decree does not contain provisions on dual-use research assessment [2]. Moreover, there is no further evidence on the websites of the Ministries of Health, Agriculture, and Defense [3, 4, 5]. As a signatory state to the Biological Weapons Convention (BWC) (January 26, 1996), Uzbekistan has submitted 21 Confidence Building Measures reports, of which the first in 1998 and the latest in 2020, to the United Nations (UN) Office at Geneva, but these reports are not publicly accessible [6]. There is no further evidence in this regard on the Verification Research, Training, and Information Centre (VERTIC) BWC legislation database [7].

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

Uzbekistan does not have legislation or regulations requiring oversight of research with especially dangerous pathogens, toxins, pathogens with pandemic potential or other dual-use research. Article 12 of Annex 1 of the 2018-2021 National Action Plan for Implementation of International Agreements on Chemical, Biological, Radiological, and Nuclear Security (adopted November 2018, last amended April 2020) states that in 2018-2019, through international cooperation under the Export Control and Border Security Program and by financial means provided by donor countries, including the United States, a national list of dual-use goods and technologies would be developed, and control over import and export of dual-use goods would be enhanced [1]. The decree does not refer to oversight of dual-use research [1]. Further, there is no evidence of legislation or regulations requiring oversight of research with especially dangerous pathogens, toxins, pathogens with pandemic potential, or other dual-use research on the national legal database and the websites of the Ministry of Health, Agriculture, and Defense [2, 3, 4, 5]. As a signatory state to the Biological Weapons Convention (26 January 1996), Uzbekistan has submitted 21 Confidence Building Measures reports to the United Nations (UN) Office at Geneva, of which the first was in 1998 and the latest was in 2020, but these reports are not publicly accessible [6]. There is no further evidence on the Verification Research, Training, and Information Centre (VERTIC) Biological Weapons Convention (BWC) legislation database [7].


1.5.1c
Is there an agency responsible for oversight of research with especially dangerous pathogens, toxins, pathogens with pandemic potential and/or other dual-use research?
Yes = 1, No = 0
Current Year Score: 0

There is no evidence of an agency responsible for oversight of dual-use research in Uzbekistan. The state agency responsible for oversight of dual-use goods is the State Committee for the Defense Industry [1, 2]. According to Article 2 of its statute (adopted November 2017), the Committee ensures "implementation of the standards and requirements for development, production, repair, modernization, unification, adaptation, elimination, and processing of military and dual-use goods, import
and export of weapons, military equipment, and military-technical property” [2]. However, there is nothing in the committee’s statute that explicitly mentions oversight of dual-use research [2]. There is no further evidence on the Ministry of Health, Ministry of Defense, and Ministry of Agriculture websites [3, 4, 5]. As a signatory state to the Biological Weapons Convention (26 January 1996), Uzbekistan has submitted 21 Confidence Building Measures reports to the United Nations (UN) Office at Geneva, of which the first was in 1998 and the latest was in 2020, but these reports are not publicly accessible [6]. There is no further evidence on the Verification Research, Training, and Information Centre (VERTIC) Biological Weapons Convention (BWC) legislation database [7].


1.5.2 Screening guidance for providers of genetic material

1.5.2a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence of legislation or regulations requiring the screening of synthesized DNA (deoxyribonucleic acid) against lists of known pathogens and toxins before it is sold in Uzbekistan. The main regulation setting requirements for the safety of medicines upon sale is the decree of the Cabinet of Ministers on Adopting the General Technical Regulation on the Safety of Medicinal Products (adopted October 2016, last amended October 2018) [1]. Chapter 7 (Articles 51-55) of the decree sets the requirements for wholesale and retail trade of medicinal products—including storage, labeling (instructions for use), and display—stating that the Technical Regulation, as well as a set of quality assurance and control requirements established by the Ministry of Health, should be followed [1]. Specifically, Article 52 of the decree bans the wholesale trade of medicines with inappropriate packaging and labeling, but does not require the screening of synthesized DNA against lists of known pathogens and toxins [1]. There is no further evidence on screening requirements on the websites of the Ministry of Health and State Center for Expertise and Standardization of Medicines, Medical Products, and Medical Equipment [2, 3]. The current edition of the Law on Medicines and Pharmaceutical Activity (adopted January 2016, last amended July 2020) does not contain provisions on screening of synthesized DNA [4]. There is no further evidence on the websites of the Ministry of Health, Ministry of Agriculture, and Ministry of Defense [5, 6, 7]. As a signatory state to the Biological Weapons Convention (26 January 1996), Uzbekistan has submitted 21 Confidence Building Measures reports to the United Nations Office at Geneva, of which the first was in 1998 and the latest was in 2020, but these reports are not publicly accessible [8]. There is no further evidence on the Verification Research, Training, and Information Centre (VERTIC) Biological...
1.6 IMMUNIZATION

1.6.1 Vaccination rates

1.6.1a
Immunization rate (measles/ECV2)
Immunization rate (measles/ECV2), 95% or greater = 2, 80-94.9% = 1, Less than 80%, or no data = 0

Current Year Score: 2

2019

World Health Organization

1.6.1b
Are official foot-and-mouth disease (FMD) vaccination figures for livestock publicly available through the OIE database?
Yes = 1 , No = 0

Current Year Score: 1

2020

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

2.1 LABORATORY SYSTEMS STRENGTH AND QUALITY

2.1.1 Laboratory testing for detection of priority diseases

2.1.1a
Does the national laboratory system have the capacity to conduct diagnostic tests for at least 5 of the 10 WHO-defined core tests?
Evidence they can conduct 5 of the 10 core tests and these tests are named = 2, Evidence they can conduct 5 of the 10 core tests and the tests are not named = 1, No evidence they can conduct 5 of the 10 core tests = 0

Current Year Score: 2

Uzbekistan’s national laboratory system has the capacity to conduct diagnostic tests for five of the ten core tests defined by the World Health Organization (WHO) and these tests are named. The core of Uzbekistan’s national laboratory system is the Republican Specialized Scientific-Practical Center for Epidemiology, Microbiology, Infectious, and Parasitic Diseases, which has five laboratories: bacteriological, biochemical, clinical-diagnostic, clinical immunology of infectious diseases, and a polymerase chain reaction (PCR) testing laboratory [1, 2, 3]. There is evidence that the Center can conduct PCR testing for influenza virus and serology for HIV [4, 5]. The Reference Laboratory of the Scientific-Research Institute for Virology conducts enzyme immunoassay (ELISA) and PCR testing for viral hepatites and TORCH infections [6, 7]. The Reference Laboratory of the Republican Specialized Scientific and Practical Medical Center for Tuberculosis and Pulmonology conducts microscopy for mycobacterium tuberculosis [8]. However, no evidence that Uzbekistan has determined the four country-specific tests was found on the websites of the Ministry of Health and the Scientific-Research Institute for Epidemiology, Microbiology, and Infectious Diseases [9, 10].

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

Uzbekistan has a national strategic plan for conducting testing during a public health emergency, which includes considerations for testing for novel pathogens, scaling capacity, and defining goals for testing. The Strategic Preparedness and Response Plan (SPRP) to provide guidance for managing the COVID-19 response was adopted on March 19, 2020 and updated on April 9, 2020 [1, 2]. SPRP provides for a mechanism for COVID-19 response coordination, risk communications, contact tracing, testing, case management, and vaccination [1]. According to the strategy, only “suspect” cases and contacts of infected cases should be tested, if there are not enough test kits, then testing should be done as a priority only for people with severe COVID-19 symptoms [2]. The National Plan for the Prevention of Epidemics, Epizootics, and Epiphytotics (adopted by the Cabinet of Ministers in April 2007, last amended July 2020) encompasses naturally-occurring viral infections, influenza, acute intestinal diseases, cholera, malaria, and HIV/AIDS, including considerations for prevention, testing, and treatment [3]. However, this plan does not have provisions on conducting testing during a public health emergency and it does not mention testing for novel pathogens, scaling capacity, or defining goals for testing [3].

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

Uzbekistan does not have an accredited national laboratory that serves as a reference facility. Uzbekistan has two national laboratories that serve as reference facilities: the Reference Laboratory of the Scientific-Research Center for Virology serves as a reference facility for parenteral hepatites and HIV, while the Reference Laboratory of the Republican Specialized Scientific and Practical Medical Center for Tuberculosis and Pulmonology serves as a reference facility for tuberculosis [1, 2]. There is no evidence that either of the facilities is accredited by ISO or CLIA standards, but the latter has received a certificate for successfully passing the external quality assessment of TB Microscopy, Drug Susceptibility of First- and Second-line Drugs from the München-Gauting Institute of Microbiology and Laboratory Medicine and the World Helath Organization (WHO)/GLI Supranational Reference Laboratory of Tuberculosis [1, 2]. There is no further evidence on international accreditation of the national laboratories on the websites of the Ministry of Health and Ministry of Agriculture [3, 4].


2.1.2b
Is there a national laboratory that serves as a reference facility which is subject to external quality assurance review?
Yes = 1 , No = 0  
Current Year Score: 0

There is insufficient evidence that there is a national laboratory serving as a reference facility in Uzbekistan which is subject to an external quality assurance review. Uzbekistan has two national laboratories that serve as reference facilities: the Reference Laboratory of the Scientific-Research Center for Virology serves as a reference facility for parenteral hepatites and HIV, while the Reference Laboratory of the Republican Specialized Scientific and Practical Medical Center for Tuberculosis and Pulmonology serves as a reference facility for tuberculosis [1, 2]. The latter has undergone external quality assurance review for tuberculosis microscopy and drug susceptibility of first- and second-line drugs by the München-Gauting Institute of Microbiology and Laboratory Medicine and the World Health Organization (WHO)/GLI Supranational Reference Laboratory of Tuberculosis, receiving a certificate in 2013 [2]. However, there is no evidence of more recent external quality assurance reviews [2]. There is no evidence that the Reference Laboratory of the Scientific-Research Center for Virology is subject to regular external quality assurance review [1]. There is no further evidence on the websites of the Ministry of Health and Ministry of Agriculture [3, 4].

[2] Republican Specialized Scientific and Practical Medical Center of Tuberculosis and Pulmonology of the Ministry of Health
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 that a nationwide specimen transport system is in place in Uzbekistan. While regulations for transport of dangerous goods, including infectious materials, are defined and regulated by the Rules for Road Transportation of Hazardous Cargo (adopted February 2011, last amended May 2020) [1]. As stated in Article 2 of Annex 1 of the regulation, it institutes a system that entails the notification about the movement of vehicles with hazardous cargo with the following components: an information table designating the class of transported hazardous goods; an emergency card on measures to address accidents or incidents; an information card for decoding the emergency measures code indicated on the information table; and special coloring and inscriptions on vehicles [1]. However, the Rules for Road Transportation of Hazardous Cargo include no mention of a nationwide specimen transport system [1]. However, no evidence of a nationwide specimen transportation system was found on the websites of the Ministry of Health, the Ministry of Agriculture, or the Ministry of Transport, as well as the website of the State Committee for Industrial Safety, which is responsible for biosafety enforcement [2, 3, 4, 5]. Furthermore, the websites of various private road transport companies operating in Uzbekistan offer services for the transportation of hazardous goods including infectious materials, but these websites do not include any information on the companies' coverage of the country [6, 7].


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
There is no publicly available evidence that Uzbekistan has a plan to rapidly authorize or license laboratories to supplement the capacity of the national public health laboratory system to scale-up testing during an outbreak. The National Plan for the Prevention of Epidemics, Epizootics, and Epiphytotics, adopted by the Cabinet of Ministers in April 2007 as a supplement to the National Plan for Forecasting and Preventing Emergencies (last amended July 2020), encompasses naturally-occurring viral infections, influenza, acute intestinal diseases, cholera, malaria, and HIV/AIDS, including considerations for prevention, testing, and treatment [1]. However, there are no statements in the plan on rapidly authorizing or licensing laboratories to supplement the capacity of the national public health laboratory system to scale-up testing during an outbreak [1]. There is no further evidence of a national plan, strategy, or similar document entailing such a provision on the websites of the Ministry of Health and the Ministry of Agriculture [2, 3].


2.3 REAL-TIME SURVEILLANCE AND REPORTING

2.3.1 Indicator and event-based surveillance and reporting systems

2.3.1a

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

Current Year Score: 0

There is no evidence that Uzbekistan is conducting ongoing event-based surveillance and analysis for infectious diseases. The National Center for Crisis Management and Response of the Ministry of Emergency Situations conducts collection and analysis of data related to the epidemic, epizootic, epiphytotic, as well as radioactive, chemical, and biological (bacteriological) situation in the country, but there is no evidence that surveillance is ongoing and/or event-based [1]. The Ministry of Health has an information-analytical department, but there is no evidence that it conducts ongoing event-based surveillance and analysis for infectious diseases [2]. There is no further evidence on the websites of the Ministry of Health, Agriculture, and Emergency Situations, as well as the Scientific-Research Institute for Epidemiology, Microbiology, and Infectious Diseases [3, 4, 5, 6].

[6] Scientific-Research Institute for Epidemiology, Microbiology, and Infectious Diseases of the Ministry of Health of
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 Uzbekistan has reported a potential public health emergency of international concern (PHEIC) to the World Health Organization (WHO) within the last two years. The WHO Disease Outbreak News pages for 2019 and 2020 do not contain evidence that Uzbekistan has reported a PHEIC, including for the novel coronavirus (COVID-19) disease, which was declared by the WHO as a PHEIC on January 30, 2020 and a pandemic on March 11, 2020 [1]. The WHO Regional Office for Europe pages for Uzbekistan and the websites of the Ministry of Health and Agriculture do not contain such evidence either [2, 3, 4].


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 of Uzbekistan operates an electronic reporting surveillance system at both the national and the sub-national levels. The Unified System for Monitoring, Information Exchange, and Forecasting Natural, Technological, and Environmental Emergencies was established by the decree of the Cabinet of Ministers in December 2017 (last amended August 2020) [1]. The system is automatized, integrated into the national e-government system, and operates at three levels: republican, local, and facility [1]. According to Article 12 of the decree, the system ensures monitoring of hazardous processes and phenomena, recording predictive data on natural and technological threats that may be lead to emergencies and provides reporting during emergencies [1]. Article 14 of the same decree states that information on emergencies may be relayed verbally, via telephone and radio, e-mail, fax, and secure electronic channels [1]. Specific guidelines on monitoring, information exchange, and forecasting infectious diseases are provided in Annexes 1 and 2 of the decree: the third sections (Articles 36-43) of both relate to infectious diseases of humans, while the fourth sections (Articles 44-51) relate to infectious diseases of farm animals [1]. Emergencies of natural, technological, and environmental origin, as specified in D° 1998 Cabinet of Ministers' decree, cover the following public health emergencies: infectious disease outbreaks, epidemics, epizootics, epiphytotics, and food poisoning [2].

2.3.2b

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

Yes = 1, No = 0

Current Year Score: 0

There is insufficient evidence that Uzbekistan’s electronic reporting surveillance system collects ongoing and real-time laboratory data. Article 13 of the Cabinet of Ministers’ Decree on Establishing the Unified System for Monitoring, Information Exchange, and Forecasting Natural, Technological, and Environmental Emergencies (adopted December 2017, last amended August 2020) states that information exchange within the unified system for monitoring and forecasting data takes place in accordance with the following timeline: at the national level, monthly, quarterly, and yearly; at the local level, weekly and monthly; at the facility level, daily and weekly. During emergencies and when there is the threat of an emergency, information exchange is instantaneous. After an emergency or its threat have been overcome, information is provided daily for several days [1]. However, it is unclear whether a real time collection takes place at the national level.


2.4 SURVEILLANCE DATA ACCESSIBILITY AND TRANSPARENCY

2.4.1 Coverage and use of electronic health records

2.4.1a

Are electronic health records commonly in use?

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

Current Year Score: 1

Electronic health records (EHRs) are not commonly in use in Uzbekistan, but there is evidence they are used. The widespread use of information and communication technologies in healthcare and the introduction of the national e-health system were envisaged by the presidential order of December 2018, "On Comprehensive Measures to Radically Reform the Healthcare System of Uzbekistan" (last amended November 2020) [1]. The e-healthcare system, according to Section 3.9 of Annex 1 of the decree, should entail information on medical institutions and their services, enable for remote registration and assessment of visits, document management, including maintaining medical records and issuing prescriptions, and medical accounting and statistics [1]. According to a January 2021 news article, the private medical information and analytics system TechnoMed was developed and introduced in 2013. Its EHR subsystem has shown its effectiveness over the years, and the system currently connects 13 medical institutions across the country [2, 3]. According to the same article, in the course of implementation of the "Digital Tashkent" project (launched in March 2020), EHRs will be introduced in 15 specialized medical...
centers, 11 multidisciplinary associations, and 62 polyclinics of the capital city [2, 4]. Furthermore, EHRs are also used by one of the national consultative polyclinics [5].


2.4.1b
Does the national public health system have access to electronic health records of individuals in their country?
Yes = 1 , No = 0

The is no evidence that the national public health system has access to electronic health records (EHRs) of individuals in Uzbekistan. The national public health system in Uzbekistan consists of the Ministry of Health of Uzbekistan, the Ministry of Health of Karakalpakstan, regional health authorities, health authority of the Tashkent city, as well as a range of state-owned institutions and organizations whose primary objective is provision of healthcare: medical research institutes, educational and training institutions, pharmaceutical enterprises and organizations, sanitary-preventive institutions, and medical expertise centers [1, 2]. According to Article 9 of the Law on Public Healthcare (adopted August 1996, last amended December 2020), healthcare is financed from the state budget, health insurance funds, payments for paid services, voluntary and charitable contributions, bank loans, and other sources not prohibited by law [1]. EHRs are not commonly in use, but there is evidence of their use in a dozen private clinics since 2013 [3]. Articles pertinent to the national public health system in the Law on Public Healthcare (adopted August 1996, last amended December 2020) do not contain a provision on official's access to private EHRs and neither does the presidential decree on healthcare governance (adopted October 2020) [1, 2]. The websites of the operator of the private records (TechnoMed) and the Ministry of Health do not contain further evidence on whether the public health system has access to the existing EHRs [4, 5].


2.4.1c
Are there data standards to ensure data is comparable (e.g., ISO standards)?
Yes = 1 , No = 0
Current Year Score: 0

There is no evidence of data standards to ensure electronic health record data are comparable in Uzbekistan. The 2019-2025 Concept for the Healthcare System Development (adopted as an annex to the Presidential Order on Comprehensive Measures to Radically Reform the Healthcare System, December 2018, last amended November 2020) envisages widespread introduction of electronic healthcare services, including maintenance of e-health records, stating that these will enable to implement the standardization system in the healthcare field [1]. There is no evidence that the existing electronic healthcare records (EHRs) within the TechnoMed system follow international data standards [2, 3]. There is no further evidence on the websites of the Ministry of Health and the Scientific-Research Institute for Epidemiology, Microbiology, and Infectious Diseases [4, 5].


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

2.4.2a

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

Yes = 1 , No = 0

Current Year Score: 0

There is evidence of an established mechanism for data sharing that involves ministries responsible for animal, human, and wildlife surveillance, but the system is designed to share information on emergencies. Article 22 of the Cabinet of Ministers’ Decree on Establishing the Unified System for Monitoring, Information Exchange, and Forecasting Natural, Technological, and Environmental Emergencies (adopted December 2017, last amended August 2020) states that the technical basis for the monitoring and information-analytical activity of the Unified System are the ground and aviation facilities of state agencies, as well as other organizations in the realm of their responsibility [1]. Article 23 of the same decree specifies that the ground means for exchanging information on natural, technological, and environmental emergencies are the equipment, laboratories, and analytical property of the Ministries of Health, Water Resources, and Emergency Situations, the State Committees for Ecology and Environmental Protection, Geology and Mineral Resources, Land Resources, Geodesy, Cartography, and State Cadaster, and the Institute of Seismology of the Academy of Sciences [1]. However, the Cabinet of Ministers Decree does not refer explicitly to epidemic threats or surveillance of disease monitoring [1]. Reports on the system’s activity do not refer to disease surveillance [2, 3]. No evidence of any other established data-sharing mechanism designed for disease surveillance was found on the websites of the Ministry of Health or Ministry of Agriculture, the State Veterinary Committee, and the Ministry of Health’s Research Institute of Epidemiology, Microbiology and Infectious Diseases [4, 5, 6, 7].
2.4.3 Transparency of surveillance data

2.4.3a

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

Yes = 1, No = 0

Current Year Score: 0

There is no evidence that Uzbekistan makes de-identified health surveillance data daily on disease outbreaks publicly available via reports or other format on government websites. Summary healthcare statistics in csv, json, and xml formats are available on the open database maintained by the government [1]. The data files for infectious and parasitic diseases (last updated November 2020) include cases for acute gastrointestinal infections (bacillary dysentery and salmonellosis), constipation and A B S paratyphoid, acute influenza, viral hepatitis, typhoid, coccycgeal infections, measles, meningococcal infections, and brucellosis [1]. Both absolute numbers and cases per 100,000 population are provided [1]. There is no evidence on the Ministry of Health, Ministry of Agriculture and associated websites on de-identified surveillance data published weekly [2, 3, 4, 5].

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

Uzbekistan makes de-identified COVID-19 surveillance data, including details on the daily case count and mortality rate, available via daily reports on a government website. Daily reports on COVID-19 surveillance data, including the case count and mortality rate, are provided on a dedicated website maintained by the Ministry of Health [1].


2.4.4 Ethical considerations during surveillance

2.4.4a

Is there legislation and/or regulations that safeguard the confidentiality of identifiable health information for individuals, such as that generated through health surveillance activities?
Yes = 1, No = 0

Current Year Score: 1

There are legislation and a regulation that safeguard the confidentiality of identifiable health information for individuals in Uzbekistan. Article 45 of the Law on Public Healthcare (adopted August 1996, last amended December 2020) states that information about seeking medical help, the state of health of a citizen, the diagnosis of his or her illness, and other information obtained during medical examination and treatment constitute a medical secret, which may not be disclosed without the consent of the citizen or his/her legal representative. Individuals disclosing a medical secret are legally liable [1]. Article 25 of the Law on Personal Data (adopted July 2019) lists health informational among "special personal data," guaranteeing their confidentiality [2]. A Cabinet of Ministers’ decree on the protection of national information resources (adopted November 2011, last amended June 2018) lists medical secret among confidential information, along with personal data, trade secret, bank secrets, other professional data, and patentable inventions [3].


2.4.4b

Is there legislation and/or regulations safeguarding the confidentiality of identifiable health information for individuals, such as that generated through health surveillance activities, include mention of protections from cyber attacks (e.g., ransomware)?
Yes = 1, No = 0
Current Year Score: 1

There are regulations safeguarding the confidentiality of identifiable health information for individuals in Uzbekistan that mention protections from cyberattacks. The Cabinet of Ministers’ decree of November 7, 2011, "On Measures to Implement the Presidential Decree on Additional Protection Measures for National Information Resources" (last amended June 2018) lists the medical secret among confidential information and includes an annexure stating that Article 4 of the Cabinet of Ministers Decree on National Security Service should be revised to include a statement on protection from cyberattacks [1]. Article 4 of the current edition of the Decree on National Security Service (adopted November 1991, last amended December 2017) retains the provision on protection from cyberattacks, stating that the Service authorities participate in the development and implementation of the state policy in the field of cryptographic and technical protection of information, as well as ensure standardization, certification, and licensing in the field [2]. Article 26 of the Law on Personal Data (adopted July 2019) requires protection of electronically stored biometric and genetic data from unauthorized access and use; the Law on Personal Data does not specifically refer to cyberattacks, but in accordance with article 3 is applicable to all data handling "irrespective of the processing measures used, including information technology" [3].


2.4.5 International data sharing

2.4.5a

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

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

Current Year Score: 0

There is no evidence that the Uzbek government has made a commitment via public statements, legislation and/or a cooperative agreement to share surveillance data during a public health emergency with other countries in the region for one or more diseases. The Law on Protecting the Population and Territories from Natural and Technological Emergencies (adopted August 1999, last amended December 2019) states that surveillance data sharing during emergencies takes place within the national government, but does not refer to sharing data with other countries [1]. As a member state of the Commonwealth of Independent States, Uzbekistan is a signatory to the 1992 Minsk Agreement on Cooperation in the Field of Healthcare, which includes clauses on data sharing but does not explicitly refer to data sharing during public health emergencies [2]. There is no further evidence on international cooperation in the field of healthcare on the websites of the Ministry of Health, the Scientific-Research Institute for Epidemiology, Microbiology, and Infectious Diseases, or the World Health Organization (WHO) country page [3, 4, 5].
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 evidence that Uzbekistan's national system provides support at the sub-national level to conduct contact tracing in the event of a public health emergency, in response to active public health emergencies, or to prepare for future public health emergencies. Uzbekistan's public healthcare system includes the central apparatus of the Ministry of Health of Uzbekistan, the Ministry of Health of Karakalpakstan, the health authority of Tashkent, and 12 regional health authorities, which are all financed from the state budget [1, 2, 3, 4]. Moreover, there is no evidence of a plan on the Ministry of Health website and the national legal database that Uzbekistan has a plan to expand contact tracing in the event of a public health emergency, covering training, metrics standardization, and/or financial resources provision from the national to sub-national levels [5]. There are no measures for conducting contact tracing at the sub-national level under the National Plan for the Prevention of Epidemics, Epizootics, and Epiphytotics, adopted by the Cabinet of Ministers in April 2007 (last amended July 2020) [6].

2.5.1b

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

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

Current Year Score: 0

There is insufficient evidence that Uzbekistan provides wraparound services to enable infected people and their contacts to self-isolate or quarantine as recommended apart from what exists for Covid-19. Article 16 of the Law on Public Healthcare (adopted August 1996, last amended December 2020), states that when falling sick, citizens are entitled to medical and social support, which includes preventive, diagnostic, rehabilitation, and other types of care as well as payment of temporary incapacity benefits [1]. However, the law does not mention any services for people required to self-isolate due to an infectious disease [1]. Article 3 of the Cabinet of Minister’s decree, "On Additional Measures against Coronavirus Disease Spread" (adopted March 2020, amended April 2020), states that individuals who have been diagnosed with COVID-19 or have returned from countries with tense epidemiological condition are required to self-isolate for two weeks, as recommended by health authorities and the Special Committee for COVID-19 Prevention and Control [2]. Annexue 1 of this decree states that health workers visit individuals' homes to provide diagnostic services [2]. However, the decree does not mention financial support for those required to self-isolate [2]. There is no further relevant evidence on the website of the Ministry of Health [3].


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
Uzbekistan does not make de-identified data on contact tracing efforts for COVID-19, including the percentage of new cases from identified contacts, available via daily reports or other format on government websites. De-identified COVID-19 surveillance data, including details on the daily case count and mortality rate, are available via daily reports on a website maintained by the Ministry of Health [1]. Moreover, de-identified contact tracing data, including the percentage of new cases from identified contacts, were published via daily reports on the same website in the first two months of the pandemic (March and April 2020), but are not currently reported [1, 2].


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

There is insufficient evidence of a joint plan between the public health system and border control authorities in Uzbekistan to identify suspected and potential cases in international travelers and trace and quarantine their contacts in response to an active or future public health emergency. Article 9 of Annex 1 of the Cabinet of Minister’s decree, “On Additional Measures against Coronavirus Disease Spread” (adopted March 2020, amended April 2020) states that international travelers are examined by border officers and the healthcare workers on duty [1]. There is no evidence on the website of the Ministry of Health and the national legal database of another joint plan or cooperative agreement between the public health system and border control authorities to identify suspected and potential cases in international travelers and trace and quarantine their contacts in the event of a public health emergency [2, 3]. Moreover, the border control authority, the National Security Service of Uzbekistan, does not have a website [4, 5].

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 Uzbekistan, but there is no evidence that resources are provided by the government to send Uzbek citizens to another country to participate in applied epidemiology training programs. On 25 January 2020, with support from the US Centers for Disease Control and Prevention (CDC), an international applied epidemiology training program was launched at the Tashkent Medical Academy [1]. The three-month program (January-April 2021) hosts leading CDC experts and will train 20 epidemiologists from all regions of Uzbekistan and the capital city Tashkent [1]. The 2021 budget of the Republic of Uzbekistan (adopted December 25, 2020) reveals that 3% of expenditures is allocated to the Ministry of Health, for implementation of healthcare development programs, vaccination, diagnosis, prevention, and treatment of infectious and non-infectious diseases, as well as maintenance and operations [2]. However, the budget does not specifically refer to applied epidemiology training [2]. The 2019-2025 Concept for the Development of the Healthcare System (adopted as an annex to presidential order in December 2018, last amended November 2020) has a section on training, retraining, and professional development of healthcare workers, stating that an interactive portal to support continuing medical education will be developed [3]. The CDC regional factsheet for Central Asia (May 2019) reveals that Uzbekistan has ceased active participation in the Central Asia Field Epidemiology Training Program (FETP), but the website of the Training Programs in Epidemiology and Public Health Interventions Network (TEPHINET) states that Uzbekistan is a member of the Central Asia FETP [4, 5]. There is no further evidence on medical training at the website of the Ministry of Health. [6]

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

The available field epidemiology training program (FETP) in Uzbekistan is not explicitly inclusive of animal health professionals, and there is no evidence of a specific animal health field epidemiology training program offered. A press release on the newly-launched applied epidemiology training program at the Tashkent Medical Academy states that 20 epidemiologists from all regions of the country will be trained to conduct research and respond to "diverse disease outbreaks," but does not specifically refer to animal health professionals [1]. There is no evidence on the Ministry of Health and the State Veterinary Committee websites that a specific animal health field epidemiology training program is offered [2,3]. According to a 2019 Centre for Disease Control and Prevention (CDC) fact sheet, Uzbekistan has ceased active participation in that organization’s Central Asia Field Epidemiology Training Program, although it is still listed as a member on the website of Training Programs in Epidemiology and Public Health Interventions Network (TEPHINET) [4].


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: 0

There is insufficient public evidence that Uzbekistan has an overarching national public health emergency response plan that addresses planning for multiple communicable diseases with epidemic or pandemic potential, although it does have an overarching plan for epidemic prevention and risk mitigation. The National Plan for the Prevention of Epidemics, Epizootics, and Epiphytotics was adopted by the Cabinet of Ministers in April 2007 as a supplement to the National Plan for Forecasting and Preventing Emergencies (last amended July 2020) [1]. The plan covers naturally-occurring viral infections, influenza (including avian influenza), acute intestinal diseases, cholera, malaria, and HIV/AIDS, as well as animal and plant diseases [1].

The plan includes considerations for disease prevention, testing, and treatment, such as study of foci, water control, and blood testing [1]. Article 2 of the Cabinet of Ministers’ decree, by which the plan was adopted, states that its objectives include monitoring, forecasting, and prevention of emergencies, as well as mobilization of resources (organizational, technical, financial, material, and information) for mitigation of the consequences of emergencies and coordination of risk reduction activities, improvement of the emergency response system and risk communications, and emergency response personnel development [1].


3.1.1b If an overarching plan is in place, has it been updated in the last 3 years?

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

Current Year Score: 0

There is insufficient public evidence that Uzbekistan has an overarching national public health emergency response plan that addresses planning for multiple communicable diseases with epidemic or pandemic potential, although it does have an overarching plan for epidemic prevention and risk mitigation. The National Plan for the Prevention of Epidemics, Epizootics, and Epiphytotics (NPPEEE) was adopted by the Cabinet of Ministers in April 2007 as a supplement to the National Plan for Forecasting and Preventing Emergencies (NPFPE) [1]. The NPPEEE has not been updated since its adoption, but the NPFPE has been amended several times, most recently in July 2020 [1]. There is no evidence on any newer overarching public health
emergency response plan on the websites of the Ministry of Health or the Ministry of Emergency Situations [2, 3].


3.1.1c
If an overarching plan is in place, does it include considerations for pediatric and/or other vulnerable populations?
Yes = 1, No /no plan in place= 0

Current Year Score: 0

There is insufficient public evidence that Uzbekistan has an overarching national public health emergency response plan that addresses planning for multiple communicable diseases with epidemic or pandemic potential, although it does have an overarching plan for epidemic prevention and risk mitigation. The National Plan for the Prevention of Epidemics, Epizootics, and Epiphytotics (adopted April 2007, last amended July 2020) does not include any mentions of children, elderly people, people with disabilities or other vulnerable populations [1]. There is no evidence of another overarching public health emergency response plan on the websites of the Ministry of Health and the Ministry of Emergency Situations [2, 3].


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
Uzbekistan does not have a specific mechanism for engaging with the private sector to assist with outbreak emergency preparedness and response. Article 2 of the presidential decree on measures to develop public-private cooperation in the field of healthcare (adopted April 2019, last amended February 2020) states that public-private partnership projects in the field of healthcare are implemented based on an agreement between the public and private partners through choosing one or a combination of the following forms: design, construction, reconstruction, creation, equipping, modernization, financing, and operation and maintenance of public health infrastructures; or provision of goods and services in the field of healthcare [1]. The same article further elaborates that private partners are selected based on a tender or direct negotiation, and the term of the agreement is determined jointly by the public and private partners. The results of partnership projects are rendered upon completion, by the end of the term [1]. However, the decree does not refer to outbreak emergency preparedness and response [1]. The National Plan for the Prevention of Epidemics, Epizootics, and Epiphytotics (adopted April 2007, last amended July 2020) does not specify a mechanism for engaging with the private sector to assist with outbreak emergency preparedness and response [2]. There is no further evidence on the websites of the Ministry of Health and the Ministry of Emergency Situations [3, 4].


3.1.3 Non-pharmaceutical interventions planning

3.1.3a

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

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

Current Year Score: 1

Uzbekistan has a policy and guidelines to implement non-pharmaceutical interventions (NPIs) during an epidemic or pandemic, but these are only for one disease. Articles 1-18 of the Cabinet of Minister’s decree "On Additional Measures against Coronavirus Disease Spread” (adopted March 2020, amended April 2020) prescribes the following NPIs: a two-week quarantine of individuals entering the territory of the Republic of Uzbekistan, mandatory cleaning of public transportation, remote provision of government services, remote work organization at private enterprises, personal protective equipment use, and social distancing [1]. Annex 1 of the decree outlines two other NPIs—-isolation and self-isolation—stating that the former is implemented for individuals who have been in close contact with an infected person (living in the same household, hand-shaking or hugging), while the latter is implemented for contact persons who have not been in close contact (have been in the same transportation or closed room) [1]. There are no provisions on NPIs in the Law on Public Healthcare (adopted August 1996, last amended December 2020) and the National Plan for the Prevention of Epidemics, Epizootics, and Epiphytotics (adopted April 2007, last amended July 2020) [2, 3]. There is no further evidence of a general policy, plan and/or guidelines to implement non-pharmaceutical interventions (NPIs) during an epidemic or pandemic on the website of the Ministry of Health [4].
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

Uzbekistan has activated a national emergency response plan for an infectious disease outbreak in the past year, but there is no evidence that the country has completed a national-level biological threat-focused exercise with the World Health Organization (WHO) or separately in the past year. By a presidential order of January 29, 2020, a special committee was formed to develop measures to limit the spread of COVID-19 [1]. These measures were adopted by a decree of the Cabinet of Ministers on March 23, 2020 (last amended April 17, 2020) [2]. A national Strategic Preparedness and Response Plan (SPRP) was developed, in collaboration with WHO and other partners, to provide guidance on managing the response to COVID-19 [3]. The national SPRP was issued on March 19 and updated on April 6, outlining the immediate priorities to suppress transmission of the virus and to support health systems to respond to the pandemic [3]. A state of emergency in response to COVID-19 was not declared in Uzbekistan [4]. In November 2018, Uzbekistan participated in the exercise known as Joint Assessment and Detection of Events (JADE), which simulated an outbreak of foodborne human infection listeriosis and enabled the National Focal Points of 27 countries in the WHO European Region to practice elements of emergency risk communication, notification, and information exchange with the WHO, as per the International Health Regulations (IHR) (2005) and related procedures [5]. There is no evidence of an exercise conducted with the WHO after May 2019. [6, 7].

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 Uzbekistan has developed and published a plan to improve infectious disease response capabilities in the past year. The World Health Organization (WHO) extranet, country, and regional pages do not contain evidence that Uzbekistan has completed an after-action review, developing and publishing a report on infectious disease response [1, 2, 3]. In November 2018, Uzbekistan participated in a functional simulation exercise JADE (Joint Assessment and Detection of Events) organized by the WHO Regional Office for Europe, which enabled identification of gaps and best practices in infectious disease response [4]. There is no further evidence of an after action review or a plan to improve infectious disease response capabilities on the websites of the Ministry of Emergency Situations and the Ministry of Health [5, 6].

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 Uzbekistan has undergone a national-level biological threat-focused exercise in the past year that has included private sector representatives. The World Health Organization (WHO) extranet, country, and regional pages do not contain evidence that Uzbekistan has undergone a national-level biological threat-focused exercise in the past year [1, 2, 3]. In November 2018, Uzbekistan participated in a functional simulation exercise known as Joint Assessment and Detection of Events (JADE) organized by the WHO Regional Office for Europe, which enabled identification of gaps and best practices in infectious disease response, but only national focal points of 27 countries were involved [4]. There is no further evidence on the websites of the Ministry of Emergency Situations and the Ministry of Health [5, 6].


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

Uzbekistan does have an Emergency Operations Center (EOC). The National Center for Emergency Management and Response functions under the Ministry of Emergency Situations of Uzbekistan [1]. Its functions are two-fold: first, collection and analysis of data on natural, technological, and public health hazards, including epidemics, epizootics, and epiphytotics, as
well as chemical, bacteriological (biological), and radioactive conditions in the country, as received from territorial and functional subsystems of the State System for Emergency Prevention and Response; second, notification of government agencies and the population on emergencies (nature, scale, development, and potential impact) and emergency response (forces and means involved, procedures for action) [2].


3.3.1b
Is the Emergency Operations Center (EOC) required to conduct a drill for a public health emergency scenario at least once per year or is there evidence that they conduct a drill at least once per year?
Yes = 1, No = 0

Current Year Score: 0

There is no evidence that the Emergency Operations Center (EOC) of Uzbekistan is required to conduct a drill for a public health emergency scenario at least once per year or that it conducts a drill at least once per year. There is no evidence on the Ministry of Emergency Situations website that the National Center for Emergency Management and Response is required to conduct a drill for a public health emergency scenario at least once per year or that it conducts a drill at least once per year [1, 2]. A 2019 presidential decree establishing the Center and specifying its functions and activities states that the Ministry organizes and conducts emergency response training and exercises but does not specify frequency [3]. The latest annual report on activity of the Ministry dates 2017, thereby revealing that joint exercises were conducted in Tashkent city and the Tashkent region, but no details are provided on the participants [4]. There is no further evidence on the websites of the Ministry of Emergency Situations and the Ministry of Health [5, 6].


3.3.1c
Is there public evidence to show that the Emergency Operations Center (EOC) has conducted within the last year a coordinated emergency response or emergency response exercise activated within 120 minutes of the identification of the public health emergency/scenario?
Yes = 1, No = 0
Current Year Score: 0

There is no public evidence that the Emergency Operations Center of Uzbekistan 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. There is no evidence on coordinated emergency response to the public health emergency or emergency response exercise scenario on the websites of the Ministry of Emergency Situations and the Ministry of Health [1, 2].


3.4 LINKING PUBLIC HEALTH AND SECURITY AUTHORITIES

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

3.4.1a

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

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

Current Year Score: 0

There is no publicly available evidence that public health and national security authorities of Uzbekistan have carried out an exercise to respond to a potential deliberate biological event (i.e., bioterrorism attack), and there are no publicly available standard operating procedures, guidelines, memorandums of understanding (MOUs), or agreements between the public health and security authorities to respond to a potential bioterrorism attack. While the National Security Service of Uzbekistan does not have a website, there is no evidence of joint exercises between the public health and national security authorities at the websites of the Ministry of Health and Ministry of emergency situations [1, 2]. There are no publicly available standard operating procedures, guidelines, MOUs or agreements between the public health and security authorities to respond to a potential bioterrorism attack, either [1, 2, 3]. However, Article 8 of Section 2 of the Cabinet of Ministers decree on the National Security Service (adopted November 1991, last amended December 2017) states that national security authorities take measures to prevent major accidents, catastrophes, and other emergencies at nuclear power plants, oil and gas pipelines, transportation, and defense industry facilities, as well as respond to epidemics, epizootics, environmental disasters, and other emergencies [4].

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

Uzbekistan’s risk communication plan does not outline how messages will reach populations and sectors with different communications needs. Article 19 of the Cabinet of Ministers decree on risk communication (adopted August 2017) states that during an emergency, all airtime is devoted to coverage of the emergency, but does not outline how messages will reach populations and sectors with different communications needs [1]. There is no further evidence on risk communications on the Ministry of Emergency Situations website, although this website is accessible in three languages (Uzbek, Russian, and English) and can be adjusted to the needs of people with visual and hearing impairments [2]. There is no evidence of a risk communication plan specifically designed for public health emergencies under Uzbekistan’s National Plan for the Prevention of Epidemics, Epizootics, and Epiphytotics, adopted by the Cabinet of Ministers in April 2007 as a supplement to the National Plan for Forecasting and Preventing Emergencies (last amended July 2020), although the plan does mention that risk communication to the population should be a priority [3].


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

Uzbekistan has a risk communication plan that is intended for use during a public health emergency. The Cabinet of Ministers decree of August 2017, "On Establishment and Development of the Automated System for Warning and Informing the Population of Emergencies or Threats of Emergencies" states that the general management and coordination of warning and informing the population about emergencies or threats of emergencies are carried out by the Ministry of Emergency
Situations, while the automated system for risk communication functions at three levels—republican, local, and facility—financed from state and local government budgets [1]. Annexure 2 of the decree defines the automated system for warning and informing the population of emergencies or threats of emergencies in the following manner: “a set of software and hardware tools for collecting, processing, storing, and issuing information about threats or emergencies, as well as real-time monitoring of all procedures for alerting and informing the population about the current situation, methods of protection, and actions of the population in emergency situations” [1]. The system is intended for communication under emergencies of natural, technological, and environmental origin, as specified in the 1998 Cabinet of Ministers’ decree on the classification of emergencies (last amended December 2019) and covers public health emergencies: infectious disease outbreaks, epidemics, epizootics, epiphylloptics, and food poisoning [2].


### 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

Uzbekistan’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. Article 5 of the Cabinet of Ministers decree of August 2017, “On Establishment and Development of the Automated System for Warning and Informing the Population of Threats of Emergencies or Emergencies” states that the general management and coordination of risk communications are carried out by the Ministry of Emergency Situations, but does not designate a specific position within the government to serve as the primary spokesperson to the public during a public health emergency [1]. There is no further evidence on the websites of the Ministry of Health and Ministry of Emergency [2, 3].

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

There is evidence that the public health system of Uzbekistan has shared messages via online media platforms to inform the public about ongoing public health concerns and dispel rumors, misinformation or disinformation in the past year. The Ministry of Health shares messages both via its website and on social media (Telegram) [1, 2]. The press section of the website has webpages for news releases, photo and video galleries, and events [1]. There are 226 news releases on the current website, the earliest dated September 2, 2020, and the latest dated February 5, 2021, concerning topics such as morbidity and mortality due to COVID-19, first aid service, and distance education of healthcare professionals [3]. The old website also contains a news section, with the earliest release dated January 23, 2010 and the latest dates October 2, 2020 [4]. To date, 29 videos have been published on the new website of the Ministry (the earliest on October 21, 2020 and the latest on February 4, 2021), covering topics such as the World Cancer Day, provision of medical services in remote regions, and international cooperation [5]. The Telegram channel of the Ministry is widely read, having around 53,000 members as of February 2021 [2]. The Ministry has presence on three other social media platforms (Facebook, Twitter, and VK), but neither has been active since February 2016 [6, 7, 8].


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 of Uzbekistan have shared misinformation or disinformation on infectious diseases in the past two years. As reported by Gazeta news agency, corruption investigations suggest that COVID-19 statistics have been falsified in Uzbekistan, and disinformation has been shared on the Telegram channel of the Ministry of Health [1, 2]. Specifically, the Ministry of Health (MoH) has significantly underreported active cases in Samarkand and Andijan regions, as well as deaths due to COVID-19. In addition, it has ceased providing disaggregated statistics on COVID-19 by region, age, and gender, leaving unanswered several press inquiries since September 2020 [2]. However, there is no evidence that senior
leaders have personally shared misinformation or disinformation on infectious diseases in the past two years [3, 4, 5, 6, 7].


3.6 ACCESS TO COMMUNICATIONS INFRASTRUCTURE

3.6.1 Internet users

3.6.1a Percentage of households with Internet

Input number

Current Year Score: 52.31

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: 101.21

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: 14.0

2019
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: 8.0

2019

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

Uzbekistan has issued a restriction, without international and bilateral support, on the export of medical goods due to an infectious disease outbreak in the past year. Conditioned by the COVID-19 pandemic, the Cabinet of Ministers of Uzbekistan issued a decree on April 23, 2020 temporarily banning the export of raw materials for medical goods. The ban lasted from May 1 to December 31, 2020. [1] In July 2020, the Special Commission for Coronavirus Disease issued a temporary ban on the export of pharmaceuticals [2].


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

Uzbekistan has issued a restriction, without international and bilateral support, on the export and import of non-medical goods due to an infectious disease outbreak in the past year. In January-March 2020, due to the outbreak of the novel coronavirus disease, the State Veterinary Committee issued restrictions on the import of goods from China (all goods under the supervision of the Veterinary Committee, with the exception of veterinary medicines and diagnostics), Italy, South Korea,
and Iran (all veterinary goods) [1]. In August and September 2020, restrictions were issued on the import of live poultry and poultry products from Kazakhstan [1]. Due to the COVID-19 pandemic, the Cabinet of Ministers of Uzbekistan issued a decree on April 23, 2020, temporarily banning the export of raw materials for medical goods, which lasted from May 1 to December 31, 2020 [2].


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

Uzbekistan has implemented a ban, without international and bilateral support, on travelers arriving from specific countries due to an infectious disease outbreak in the past year. Due to the outbreak of the novel coronavirus disease, Uzbekistan temporarily suspended regular flights to France, Spain, and the UK starting on March 14 2020 [1, 2]. On the same date, citizens and residents of China, South Korea, Italy, Iran, France, and Spain, as well as people who had visited these countries in the past two weeks, were banned from entering Uzbekistan [2]. All restrictions on international travel were lifted on 1 October 2020 [3].

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: 237.42

2014

WHO; national sources

4.1.1b
Nurses and midwives per 100,000 people
Input number

Current Year Score: 1128.04

2014

WHO; national sources

4.1.1c
Does the country have a health workforce strategy in place (which has been updated in the past five years) to identify fields where there is an insufficient workforce and strategies to address these shortcomings?

Yes = 1, No = 0

Current Year Score: 0

There is insufficient evidence that Uzbekistan has a health workforce strategy, updated in the past five years, to identify fields where there is an insufficient workforce and strategies to address these shortcomings. The Concept for the Development of Healthcare System in 2019-2025, adopted by a presidential order in December 2018 (last amended November 2020) has a section devoted to the training, retraining, and professional development of healthcare professionals, as well as advancement of medical science [1]. Its 11 provisions cover such areas as streamlining educational standards and curricula of higher and postgraduate education, optimization of the terms for development of highly qualified medical professionals, cooperation with foreign medical institutions, development of e-platforms for medical education, integration of high technologies into healthcare practice, development of the system for medical professional retraining and development, advancement of medical science through accreditation by international standards, and provision of base and project-based financing for medical scientific and educational institutions [1]. The first section of the Concept provides an overview of the
current state of healthcare in Uzbekistan, noting such shortcomings as lack of qualified workforce in primary preventive and
diagnostic healthcare, as well as specialized care for children and women, underutilization of the human resources developed
at higher medical institutions, weak integration of science and practice, as manifest in insufficient involvement of advanced
technologies in medical diagnosis and treatment, the lag in implementation of modern training and retraining systems, and
the low quality of services provided by doctors and nurses [1]. The is no further evidence of a health workforce strategy,
updated in the past five years, that includes information on the size of the workforce and its shortages, as well as identifies
ways to address these shortages, on the websites of the Ministry of Health, the Ministry of Employment and Labor Relations,
or the Ministry of Public Education [2, 3, 4].

[1] President of the Republic of Uzbekistan. 7 December 2018. "Order of the President of the Republic of Uzbekistan on
2021.

4.1.2 Facilities capacity

4.1.2a

Hospital beds per 100,000 people

Input number

Current Year Score: 398

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 sufficient evidence that Uzbekistan has the capacity to isolate patients with highly communicable diseases in
biocontainment patient care units and patient isolation units located within the country. The Sanitary Rules and Norms for
the Design, Construction, and Operation of Medical Institutions, adopted by the Chief Sanitary Doctor of Uzbekistan in March
2011, require that hospitals for infectious diseases have biocontainment care units and rooms for reception and treatment of
patients and also establishes specifications for the construction and operation of such units [1]. However, there is no
evidence that biocontainment care units are in place at two of the biggest hospitals in the country, AKFA Medline and
VITAMED Medical [2, 3]. There is evidence that three hospitals with patient isolation rooms have been built to fight the
COVID-19 pandemic, but there are no details about the technical specifications of these rooms, other than that they have air
conditioning and are at a distance of 150 meters distance from the main hospital [4]. There is no additional relevant
information on the website of the Ministry of Health [5].
4.1.2c

Does the country meet one of the following criteria?
- Is there evidence that the country has demonstrated capacity to expand isolation capacity in response to an infectious disease outbreak in the past two years?
- Is there evidence that the country has developed, updated or tested a plan to expand isolation capacity in response to an infectious disease outbreak in the past two years?

Yes = 1, No = 0

Current Year Score: 1

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

There is no evidence on the websites of the Ministry of Health and Ministry of Emergency Situations that Uzbekistan has developed, updated, or tested a plan to expand isolation capacity in response to an infectious disease outbreak or expanded isolation capacity in response to an infectious disease outbreak in the past two years [1, 2]. The country does not have a published JEE report. [3] There is evidence that three hospitals with patient isolation rooms have been built to fight the COVID-19 pandemic, but there are no details about the technical specifications of these rooms, other than that they have air conditioning and are at a distance of 150 meters from the main hospital [4].


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: 2

There is a national procurement protocol which can be utilized by the Ministries of Health and Agriculture of Uzbekistan for the acquisition of laboratory supplies (such as equipment, reagents and media) and medical supplies (equipment, PPE) for routine needs. The public procurement protocol for routine needs was adopted by a presidential decree in September 2018 (last amended December 2020), in accordance with the Law on Public Procurement (adopted April 2018, last amended December 2019) [1, 2]. According to Article 2 of the decree, public procurement for goods and services is carried out by either evaluation of proposals by procurement committees or direct agreements [2]. The annexure to the decree provides a list of goods and services procured through direct agreements, listing medicines, medical products, and equipment [2]. Sample Terms of Reference for purchase of equipment, raw materials, and supplies are published on the website of the Ministry of Health [3, 4].


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

Uzbekistan has a stockpile of medical supplies for national use during a public health emergency, but there is limited evidence about what the stockpile contains. The Cabinet of Ministers Decree of 15 February 2019, "On Adopting the Protocol for Establishment, Use, and Maintenance of Financial and Material Resource Reserves for Emergency Response" (last amended 29 December 2020) defines the material resources reserve for emergency response as including stockpiles of food, clothing, medicines, medical products and medical equipment, construction materials, oil products, and personal protective equipment (PPE), but does not indicate specific types or quantities [1]. In line with the 2019 decree, these reserves are maintained by national and sub-national governments, as well as publicly and privately owned enterprises, for emergencies of both natural and technological origin [1]. There is no further evidence on the websites of the Ministry of Health or Ministry of Emergency Situations regarding what the stockpile contains [2, 3].

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

Uzbekistan does not have a stockpile of laboratory supplies for national use during a public health emergency. The Cabinet of Ministers Decree of 15 February 2019, "On Adopting the Protocol for Establishment, Use, and Maintenance of Financial and Material Resource Reserves for Emergency Response" (last amended 29 December 2020) defines the material resources reserve for emergency response as including stockpiles of food, clothing, medicines, medical products and medical equipment, construction materials, oil products, and personal protective equipment intended for use during emergencies. Laboratory supplies such as reagents and media are not mentioned. [1]. There is no further evidence on the Ministry of Health, the Ministry of Emergency Situations, and the Ministry of Defense websites, and either on the website of the drug regulatory agency, the State Center for Expertise and Standardization of Medicines, Medical Devices, and Medical Equipment [2, 3, 4, 5].

Is there evidence that the country conducts or requires an annual review of the national stockpile to ensure the supply is sufficient for a public health emergency?
Yes = 1, No = 0

Current Year Score: 0

There is insufficient evidence that Uzbekistan requires an annual review of the national stockpile to ensure the supply is sufficient for a public health emergency. However, there is evidence that the stockpile is monitored for auditing and replenishment purposes. Article 24 of the Cabinet of Ministers’ decree on the establishment, use, and maintenance of the financial and material resource reserves for emergency response (adopted February 2019, last amended December 2019) requires an annual review of the national stockpile, stating that responsible agencies publish a report on the availability, use, and replenishment of emergency response reserves by January 1 each year [1]. There is no further evidence in this regard on...
the websites of the Ministry of Health and Ministry of Emergency [2, 3].


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 Uzbekistan has a plan or agreement to leverage domestic manufacturing capacity to produce medical supplies (e.g., medical countermeasures (MCMs), medicines, vaccines, equipment, personal protective 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.

Article 2 of the Cabinet of Ministers Decree on Public Procurement (adopted September 2018, last amended December 2020) states that public procurement under emergencies is carried out through direct agreements, in accordance with lists adopted by the Ministry of Emergency Situations and the state authority for public procurement [1]. The annexure to the decree provides a list of goods and services procured through direct agreements, listing medicines, medical products, and medical equipment [1.] The Ministry of Health website has a section on tenders, which reveal that agreements are in place to leverage domestic manufacturing capacity to produce medical supplies for national use during the COVID-19 pandemic, but there is no evidence of agreements on public health emergencies in general [2, 3].

4.2.3b

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

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

Current Year Score: 0

There is insufficient evidence that Uzbekistan has a mechanism to produce or procure laboratory supplies (e.g., reagents, media) for national use during a public health emergency.

Article 2 of the Cabinet of Ministers decree on Public Procurement (adopted September 2018, last amended December 2020) states that public procurement under emergencies is carried out through direct agreements in accordance with lists adopted by the Ministry of Emergency Situations and the state authority for public procurement [1]. The annexure to the decree provides a list of goods and services procured through direct agreements, listing medicines, medical products, and medical equipment. Laboratory supplies such as reagents and media are not mentioned [1]. The Ministry of Health website section on tenders reveals that agreements are in place to leverage domestic manufacturing capacity to produce laboratory supplies (reagents for diagnostic tests, including PCR) for national use during the COVID-19 pandemic, but there are no agreements for public health emergencies in general [2, 3, 4, 5].


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
Uzbekistan does not have a plan, program, or guidelines for dispensing medical countermeasures for national use during a public health emergency. There is no evidence of a plan, program, or guidelines for dispensing medical countermeasures (i.e., antibiotics, vaccines, therapeutics, and diagnostics) on the websites of the Ministry of Health, Ministry of Emergency Situations, and Ministry of Defense websites, as well as the national legal database [1, 2, 3, 4].


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 public plan to receive health personnel from other countries to respond to a public health emergency in Uzbekistan. Uzbekistan is a member of the Commonwealth of Independent States and a signatory to the Minsk Agreement on Cooperation in the Field of Healthcare (adopted June 1992, last amended November 2005) [1, 2]. Article 5 of the Agreement states that parties commit to providing assistance in response to natural disasters, environmental and other emergencies, as well as epidemics, at the same time facilitating the efforts of other countries and international and non-governmental organizations in providing such assistance [2]. However, there is no evidence on the websites of the Ministries of Health, Defense, and Emergency Situations, as well as the national legal database, that Uzbekistan has a plan to facilitate the arrival and movement of foreign personnel during an emergency [3, 4, 5, 6].


4.4 HEALTHCARE ACCESS

4.4.1 Access to healthcare

4.4.1a

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

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

Current Year Score: 3
2020
World Policy Analysis Center

4.4.1b
Access to skilled birth attendants (% of population)
Input number
Current Year Score: 100

2015

4.4.1c
Out-of-pocket health expenditures per capita, purchasing power parity (PPP; current international $)
Input number
Current Year Score: 239.3

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 Uzbekistan’s government has issued legislation committing to provide prioritized healthcare services to healthcare workers who become sick as a result of responding to a public health emergency. Article 15 of the Law...
on Protection of the Population and Territories from Natural and Technological Emergencies (adopted August 1999, last amended December 2019) states that citizens are entitled to free medical care, compensation, and other benefits for work in emergency zones [1]. The same article states that citizens who become sick as a result of responding to an emergency are entitled to compensation and benefits [1]. The law applies to all emergencies of technological and natural origin, including public health emergencies [1]. However, the law does not mention prioritized healthcare services. [1]. There is no evidence that healthcare workers are entitled to prioritized healthcare services when becoming sick as a result of responding to a public health emergency on the websites of the Ministry of Health or the Ministry of Emergency Situations, or in the national legislative database [2, 3, 4].


4.5 COMMUNICATIONS WITH HEALTHCARE WORKERS DURING A PUBLIC HEALTH EMERGENCY

4.5.1 Communication with healthcare workers

4.5.1a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence that Uzbekistan has a system for public health officials and healthcare workers to communicate during a public health emergency. Uzbekistan has a unified system for information exchange during public health emergencies, as established by Cabinet of Ministers decree in December 2017 [1]. As stated in Article 6 of the decree (last amended August 2020), the system consists of all public and private organizations, including laboratories, which are engaged in monitoring and responding to natural and technological emergencies [1]. Annexes 1 and 2 of the decree reveal that the Ministry of Health and the directors of organizations exchange information during epidemics, but there is no statement on healthcare workers [1]. There is no further evidence of a two-way communication on the websites of the Ministry of Health and Emergency Situations [2, 3]. Moreover, there are no provisions in the National Plan for the Prevention of Epidemics, Epizootics, and Epiphytotics, adopted by the Cabinet of Ministers in April 2007 as a supplement to the National Plan for Forecasting and Preventing Emergencies (last amended July 2020) for communication between public health officials and healthcare workers during public health emergencies [4].

4.5.1b

Does the system for public health officials and healthcare workers to communicate during an emergency encompass healthcare workers in both the public and private sector?

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence that Uzbekistan has a system for public health officials and healthcare workers to communicate during an emergency that encompasses healthcare workers in both the public and private sectors. Uzbekistan has a unified system for information exchange during public health emergencies, as established by Cabinet of Ministers decree in December 2017, but there is no evidence that it encompasses healthcare workers [1]. There is no evidence of a two-way communication that encompasses healthcare workers in both the public and private sectors on the websites of the Ministry of Health and Emergency Situations [2, 3]. There are no provisions in the National Plan for the Prevention of Epidemics, Epizootics, and Epiphytotics, adopted by the Cabinet of Ministers in April 2007 as a supplement to the National Plan for Forecasting and Preventing Emergencies (last amended July 2020) for communication between public health officials and healthcare workers that encompass the private sector during public health emergencies [4].

4.6 INFECTION CONTROL PRACTICES AND AVAILABILITY OF EQUIPMENT

4.6.1 Healthcare associated infection (HCAI) prevention and control programs

4.6.1a

Is there evidence that the national public health system is monitoring for and tracking the number of healthcare associated infections (HCAI) that take place in healthcare facilities?
Yes = 1, No = 0

Current Year Score: 0

There is no evidence that Uzbekistan’s public health system is monitoring for and tracking the number of healthcare-associated infections (HCAI) in healthcare facilities. According to the presidential decree on organizing the Sanitary-Epidemiological Well-being and Public Health Service of Uzbekistan (adopted July 2020, last amended November 2020), organizational and methodological guidance for all public infectious disease hospitals and dispensaries, as well as infectious disease departments of state medical organizations, are provided by the Republican Specialized Scientific and Practical Medical Center for Epidemiology, Microbiology, Infectious and Parasitic Diseases [1]. However, there is no publicly available evidence that the Center monitors and tracks the number of healthcare-associated infections [2, 3]. There is no further evidence on HCAI on the Ministry of Health website [4].


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
There is a national requirement for ethical review from an ethics committee before beginning a clinical trial in Uzbekistan. Article 10 of the Law on Medicines and Pharmaceutical Activity (adopted January 2016, last amended July 2020) prohibits the conduct of clinical trials for pharmacological and medical products without an ethical review [1]. Article 11 of the same law states that ethical review is conducted by the Ethics Committee, which comprises representatives from medical scientific and research organizations, higher educational institutions, the media, non-governmental organizations, and other non-profits [1].


4.7.1b
Is there an expedited process for approving clinical trials for unregistered medical countermeasures (MCM) to treat ongoing epidemics?
Yes = 1 , No = 0

Current Year Score: 0

There is no evidence of an expedited process for approving clinical trials for unregistered medical countermeasures to treat ongoing epidemics in Uzbekistan. Article 24 of the Law on Medicines and Pharmaceutical Activity (adopted January 2016, last amended July 2020) states that medicines, medical devices, and equipment used in the prevention, diagnosis, and treatment of especially dangerous infections, as well as ongoing epidemics, may be imported by order of the Ministry of Health without state registration [1]. However, Articles 10-11 of the Law, which relate to approving clinical trials for unregistered medical countermeasures, do not provide for an expedited process during ongoing epidemics [1]. There is no further evidence on the website of the Ministry of Health [2].


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 responsible for approving new medical countermeasures for humans in Uzbekistan. According to the Cabinet of Ministers' decree of on Approving the Procedure for State Registration of Medicines, Medical Devices, and Medical Equipment as well as the Issuance of Registration Certificates (adopted March 2018, last amended December 2019), the government agency responsible for state registration, quality control, standardization, and certification of medicines as well as medical devices and equipment is the State Center for Expertise and Standardization of Medicines, Medical Devices, and Medical Equipment under the Pharmaceutical Industry Development Agency of the Ministry of Health [1]. The center
was established in 1995 and has 13 structural divisions, including a committee for new medical technology, three laboratories for quality control, standardization, and study of medicines, medical devices, and equipment, a national inspectorate for good practices, certification and registration departments, and a pharmacological committee [2, 3].


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 for human use during public health emergencies in Uzbekistan. Article 24 of the Law on Medicines and Pharmaceutical Activity (adopted January 2016, last amended July 2020) states that medicines, medical devices, and equipment used in the prevention, diagnosis, and treatment of especially dangerous infections, as well as ongoing epidemics, may be imported by order of the Ministry of Health without state registration [1]. This provision was added to the law in July 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 pandemics are integrated into Uzbekistan’s national risk reduction strategy. Uzbekistan’s National Disaster Risk Reduction Strategy and its Action Plan were adopted by a Cabinet of Ministers’ decree in April 2019 (not amended since) [1]. Epidemics and pandemics are integrated into this strategy. Specifically, Article 2 lists favorable conditions for the spread of especially dangerous infections among the seven risks that may lead to technological, natural, and environmental emergencies in the country. Article 4 states that increased migration processes may contribute to the spread of infectious diseases that are especially dangerous and require quarantine [1]. The Strategy has four priority directions for disaster risk reduction: disaster risk awareness raising, development of the institutional and legal framework for disaster risk management, investment in disaster risk reduction measures, and increasing response preparedness [1].

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

Uzbekistan has cross-border agreements with neighboring countries and as part of a regional group with regards to public health emergencies. As a member of the Commonwealth of Independent States (CIS), Uzbekistan has signed the 1992 Minsk Agreement on Cooperation in the Field of Healthcare (last amended November 2005), Article 5 of this agreement states that parties commit to providing assistance in response to epidemics and other public health emergencies [1]. Uzbekistan is also a member of the Shanghai Cooperation Organization (SCO), the heads of states of which proclaimed a statement in Qingdao in June 2018 on prevention of epidemics [2]. Bilateral agreements are in place with Azerbaijan (1996), Moldova (1997), Turkey (1997), Tajikistan (1998), Israel (1998), Kuwait (2008), Cyprus (2012), Latvia (2013), and Russia (2017) [3, 4, 5, 6, 7, 8, 9, 10, 11]. There is no evidence of gaps in implementation of these agreements [12].


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: 2

Uzbekistan has a cross-border agreement with neighboring countries and as part of a regional group with regard to animal health emergencies. As a member of the Commonwealth of Independent States (CIS), Uzbekistan has signed the 1993 Moscow Agreement on Cooperation in the Field of Veterinary Medicine, which states that parties commit to preventing the spread of animal infectious diseases through exchange of information and providing mutual assistance to respond to epizootics [1]. A multilateral agreement (signed June 2000) is in place with Kazakhstan, Kyrgyzstan, and Tajikistan [2]. There is no evidence that there are gaps in implementation of these agreements [3, 4].


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
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
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

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

There is evidence that Uzbekistan has allocated national funds to improve capacity to address epidemic threats within the past three years. Uzbekistan has allocated UZS 3,691,921 million (USD 353 million), or 3% of the 2021 state budget to healthcare expenditure, of which UZS 14,180 million is earmarked for improvement of the diagnosis, prevention, and treatment methods for infectious diseases [1]. The 2020 budget reveals that UZS 2,162,901 million was allocated for capital investments in design, construction, reconstruction, and equipment of healthcare facilities [2]. 11.3 percent of the government expenditures were allocated to the field of healthcare in 2019, with improvement of the ambulance service being one of the priorities [3].

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

5.5.2a
Does the Joint External Evaluation (JEE) report, National Action Plan for Health Security (NAPHS), and/or national GHSA roadmap allocate or describe specific funding from the national budget (covering a time-period either in the future or within the past five years) to address the identified gaps?
Yes = 1, No/country has not conducted a JEE = 0

Current Year Score: 0

2021

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

5.5.2b
Does the Performance of Veterinary Services (PVS) gap analysis and/or PVS assessment allocate or describe specific funding from the national budget (covering a time-period either in the future or within the past five years) to address the identified gaps?
Yes = 1, No/country has not conducted a PVS = 0

Current Year Score: 0

2021

OIE PVS assessments

5.5.3 Financing for emergency response

5.5.3a
Is there a publicly identified special emergency public financing mechanism and funds which the country can access in the face of a public health emergency (such as through a dedicated national reserve fund, an established agreement with the World Bank pandemic financing facility/other multilateral emergency funding mechanism, or other pathway identified through a public health or state of emergency act)?
Yes = 1, No = 0

Current Year Score: 1

There is a publicly identified special emergency public financing mechanism and funds which Uzbekistan can access in the face of a public health emergency. Uzbekistan is a borrowing country of the International Development Authority (IDA) and is, therefore, eligible for funds of the World Bank Pandemic Emergency Financing Facility [1, 2]. At the national level, emergency financing is available from the reserve fund maintained by the Cabinet of Ministers [3, 4].


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: 1

There is evidence that senior leaders of Uzbekistan have made a public commitment to support other countries to improve capacity to address epidemic threats by providing financing or support in the past three years, and there is evidence that senior leaders of Uzbekistan have made a public commitment to improve the domestic capacity to address epidemic threats by expanding financing or requesting support to improve capacity. During his speech at the Shanghai Cooperation Organization (SCO) Summit on 10 November 2020, the president of Uzbekistan, Shavkat Mirziyoyev, proposed to establish a network of healthcare facilities in SCO member states to foster cooperation in fighting diseases that cause epidemics. According to the president, the network would enable implementation of mutually beneficial projects for exchange of experience in diagnostics, prevention, and treatment of infectious diseases, as well as healthcare personnel cooperation, and training [1]. In an address to the nation on March 18, 2020, President Mirziyoyev stated that Uzbekistan cooperates and exchanges mutual support with the two neighboring nations, Kazakhstan and Turkmenistan, in addressing the COVID-19 pandemic. He added that additional public finances would be committed to the improvement of the state sanitary-epidemiological service in the country, thereby addressing such issues as shortage of medical equipment, supplies and apparatus at healthcare facilities, lack of trained professionals, and inadequate pay [2].


5.5.4b
Is there evidence that the country has, in the past three years, either:
- Provided other countries with financing or technical support to improve capacity to address epidemic threats?
- Requested financing or technical support from donors to improve the country’s domestic capacity to address epidemic threats?

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

There is no evidence that Uzbekistan has, in the past three years, invested finances from the national budget or provided technical support to support other countries to improve capacity to address epidemic threats, but there is evidence that Uzbekistan has invested finances from donors to improve the domestic capacity to address epidemic threats in the past three years. The Georgetown Global Health Security Tracker suggests that Uzbekistan is mainly a recipient of funds and has received a total of USD 459 million in assistance from 2014 to 2020 (USD 157 million in 2017-2019) [1]. Most of the committed funds are for emergency response and immunization, with the top funders being the Global Alliance for Vaccines and Immunization, the International Development Association (IDA), and the Global Fund to Fight AIDS, Tuberculosis, and Malaria [1]. There is no evidence in the 2019, 2020, and 2021 state budgets that Uzbekistan has allocated funds to foreign aid, although Uzbekistan has financed the construction and equipment of two healthcare facilities in neighboring Kyrgyzstan to address the COVID-19 pandemic [2, 3, 4, 5]. There is no further evidence that Uzbekistan has, in the past three years, provided technical support to support other countries to improve capacity to address epidemic threats on the Ministry of Health and Ministry of Foreign Affairs websites, and either on the World Health Organization’s (WHO) regional and country pages [6, 7, 8, 9].


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
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

Uzbekistan does not have 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. The 2018-2021 National Action Plan for the Implementation of International Regulations on Chemical, Biological, Radiological, and Nuclear Security (adopted November 2018, last amended April 2020) does not have a provision on sharing genetic data, clinical specimens, and/or isolated specimens along with the associated epidemiological data with international organizations and/or other countries [1]. The Law on Sanitary-Epidemiological Well-Being of the Population (adopted August 2015, last amended January 2021) also does not contain such a provision [2]. Moreover, there is no further evidence on the websites of the Ministry of Health and Ministry of Agriculture [3, 4].


5.6.1b

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

Yes = 0, No = 1

Current Year Score: 1
There is no public evidence that Uzbekistan has not shared samples in accordance with the Pandemic Influenza Preparedness (PIP) framework in the past two years. The World Health Organization (WHO) webpage for the PIP framework and a news release on Uzbekistan do not contain evidence that the country has not shared samples in accordance with the Framework in the past two years [1, 2].


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 public evidence that Uzbekistan has not shared pandemic pathogen samples during an outbreak in the past two years. The Pandemic Influence Preparedness (PIP) Framework webpages and country page of the World Health Organization (WHO) do not contain evidence that Uzbekistan has not shared SARS-CoV-2 samples during the ongoing COVID-19 pandemic [1, 2]. There are no news releases in national and international media outlets that Uzbekistan has not shared pandemic pathogen samples in 2019 and 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: 3
2020
Economist Intelligence

6.1.1b
Quality of bureaucracy (Economist Intelligence score; 0-4, where 4=best)
Input number
Current Year Score: 0

2020
Economist Intelligence

6.1.1c
Excessive bureaucracy/red tape (Economist Intelligence score; 0-4, where 4=best)
Input number
Current Year Score: 0

2020
Economist Intelligence

6.1.1d
Vested interests/cronyism (Economist Intelligence score; 0-4, where 4=best)
Input number
Current Year Score: 0

2020
Economist Intelligence

6.1.1e
Country score on Corruption Perception Index (0-100, where 100=best)
Input number
Current Year Score: 26

2020
Transparency International
6.1.1f
Accountability of public officials (Economist Intelligence score; 0-4, where 4=best)
Input number

Current Year Score: 0

2020
Economist Intelligence

6.1.1g
Human rights risk (Economist Intelligence score; 0-4, where 4=best)
Input number

Current Year Score: 1

2020
Economist Intelligence

6.1.2 Orderly transfers of power
6.1.2a
How clear, established, and accepted are constitutional mechanisms for the orderly transfer of power from one government to another?
Very clear, established and accepted = 4, Clear, established and accepted = 3, One of the three criteria (clear, established, accepted) is missing = 2, Two of the three criteria (clear, established, accepted) are missing = 1, Not clear, not established, not accepted = 0

Current Year Score: 0

2021
Economist Intelligence

6.1.3 Risk of social unrest
6.1.3a
What is the risk of disruptive social unrest?
Very low: Social unrest is very unlikely = 4, Low: There is some prospect of social unrest, but disruption would be very limited = 3, Moderate: There is a considerable chance of social unrest, but disruption would be limited = 2, High: Major social unrest is likely, and would cause considerable disruption = 1, Very high: Large-scale social unrest on such a level as to seriously challenge government control of the country is very likely = 0

Current Year Score: 2

2021
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

6.1.4b
What is the level of illicit arms flows within the country?  
4 = Very high, 3 = High, 2 = Moderate, 1 = Low, 0 = Very low  
Current Year Score: 2

2020

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

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: 3

2021
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: 100

2016
United Nations Development Programme (UNDP); United Nations Educational, Scientific and Cultural Organization (UNESCO); The Economist Intelligence Unit

6.2.2 Gender equality

6.2.2a
United Nations Development Programme (UNDP) Gender Inequality Index score
Input number
Current Year Score: 0.7

2018
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: 21.8

2003

World Bank; Economist Impact

6.2.3b
Share of employment in the informal sector
Greater than 50% = 2, Between 25-50% = 1, Less than 25% = 0

Current Year Score: 2

Over 50% of Uzbekistan’s labor force is employed in the informal sector. Neither the international labor statistics (ILOSTAT) database nor the World Bank data contain statistics on informal employment in Uzbekistan [1, 2]. A report released jointly by the International Labor Organization (ILO), United Nations Children’s Fund (UNICEF), and the World Bank in October 2020 (based on fieldwork conducted between October 2018 and August 2019) suggests that around 60% of the working age people in Uzbekistan are engaged in the informal sector [3].


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: 1

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: 1

2021

Economist Intelligence Democracy Index

6.2.6 Inequality

6.2.6a
Gini coefficient
Scored 0-1, where 0=best

Current Year Score: 0.35

Latest available.

World Bank; Economist Impact calculations

6.3 INFRASTRUCTURE ADEQUACY

6.3.1 Adequacy of road network

6.3.1a
What is the risk that the road network will prove inadequate to meet needs?
Very low = 4, Low = 3, Moderate = 2, High = 1, Very high = 0

Current Year Score: 1

2021
6.3.2 Adequacy of airports

6.3.2a
What is the risk that air transport will prove inadequate to meet needs?
Very low = 4, Low = 3, Moderate = 2, High = 1, Very high = 0
Current Year Score: 1

2021

6.3.3 Adequacy of power network

6.3.3a
What is the risk that power shortages could be disruptive?
Very low = 4, Low = 3, Moderate = 2, High = 1, Very high = 0
Current Year Score: 0

2021

6.4 ENVIRONMENTAL RISKS

6.4.1 Urbanization

6.4.1a
Urban population (% of total population)
Input number
Current Year Score: 50.43

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: 0.57
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: 71.57

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: 673.1

2019
WHO

6.5.1c
Population ages 65 and above (% of total population)
Input number
Current Year Score: 4.6
2019
World Bank

6.5.1d
Prevalence of current tobacco use (% of adults)
Input number
Current Year Score: 12.3

2018
World Bank

6.5.1e
Prevalence of obesity among adults
Input number
Current Year Score: 16.6

2016
WHO

6.5.2 Access to potable water and sanitation

6.5.2a
Percentage of homes with access to at least basic water infrastructure
Input number
Current Year Score: 97.83

2017
UNICEF; Economist Impact

6.5.2b
Percentage of homes with access to at least basic sanitation facilities
Input number
Current Year Score: 99

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: 175.36

2018
WHO Global Health Expenditure database

6.5.4 Trust in medical and health advice

6.5.4a
Trust medical and health advice from the government
Share of population that trust medical and health advice from the government, More than 80% = 2, Between 60-80%, or no data available = 1, Less than 60% = 0
Current Year Score: 2

2018
Wellcome Trust Global Monitor 2018

6.5.4b
Trust medical and health advice from medical workers
Share of population that trust medical and health advice from health professionals, More than 80% = 2, Between 60-80%, or no data available = 1, Less than 60% = 0
Current Year Score: 2

2018
Wellcome Trust Global Monitor 2018