JOINT EXTERNAL EVALUATION OF IHR CORE CAPACITIES
of
UZBEKISTAN

Mission report:
16 – 20 May 2022

World Health Organization

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ABBREVIATIONS

AMR	antimicrobial resistance
ARI	acute respiratory infection
AST	Antibiotic susceptibility testing
AWD	acute watery diarrhoea
BSC	biosafety cabinet
BSL	bio safety level
CAESAR	Central Asian and European Surveillance of Antimicrobial Resistance
CBRN	chemical/biological/radiological/nuclear
CCHF	Crimean Congo haemorrhagic fever
EAFI	adverse events following immunization
EBRD	European Bank for Reconstruction and Development
ECDC	European Centre for Disease Prevention and Control
EIA	enzyme immunoassay
EMT	emergency medical team
EOC	emergency operations centre
EQA	external quality assessment
EUCAST	European Committee on Antimicrobial Susceptibility Testing
EVSM	Effective Vaccine Store Management
FAO	Food and Agriculture Organization of the United Nations
FELTP	field epidemiology and laboratory training programme
FETP	field epidemiology training programme
GAP	Global Action Plan
GAVI	Global Alliance on Vaccines and Immunization
GHS	Globally Harmonized System (for classifying and communicating hazardous properties of industrial & consumer chemicals)
GLASS	Global Antimicrobial Surveillance System
GMP	Good manufacturing practices
GSR	Generic Safety Requirements (IAEA)
GVAP	WHO Global Vaccine Action Plan
HACCP	Hazard Analysis Critical Control Point
HCAI	healthcare-associated infections
IAEA	International Atomic Energy Agency
IAR	Intra-Action Review
IHR	International Health Regulations (2005)
IHR NFP	IHR National Focal Point
IMS	Incident Management System
INFOSAN	International Food Safety Authorities Network
IPC	infection prevention and control

IPV	injectable polio vaccine
IS EMID	Information System for Monitoring of Infectious Diseases
ISO	International Standards Organisation
JADE	Joint Assessment and Detection of Events
JEE	Joint External Evaluation
MCV	measles-containing vaccine
MMR	Measles, mumps and rubella
NAPHS	National Action Plan for Health Security
NFP	National IHR Focal Point
NIP	National Immunization Programme
NITAG	National Immunization Technical Advisory Group
WOAH	World Organisation for Animal Heath
OPCW	Organization for the Prohibition of Chemical Weapons
OPV	oral polio vaccine
OSCE	Organization for Security and Cooperation
PCR	polymerase chain reaction
PHEIC	public health emergency of international concern
PHEM	public health emergency management (PHEM)
PHEOC	public health emergency operations centre
PHSM	public health and social measures
PPE	personal protective equipment
PVS	WOAH Performance of Veterinary Services
RCCE	risk communication and community engagement
RRT	rapid response team
SCP	Sanitary Control Point
SES	Sanitary and Epidemiological Service (of the Ministry of Health)
SOPs	standard operating procedures
SPAR	state party annual self-assessment reporting tool
SPS	Sanitary and Phytosanitary Agreement
SVC	State Committee of Veterinary and Livestock Development
TESSy	European Surveillance System
TIPME	Tashkent Institute for Postgraduate Medical Education
UNDP	United Nations Development Program
UNICEF	United Nations Children's Fund
US CDC	United States Centers for Disease Control and Prevention
VLMS	Electronic Vaccine Logistics Management System

EXECUTIVE SUMMARY

Findings from the joint external evaluation

The JEE team would like to express its appreciation to the Republic of Uzbekistan for volunteering for a Joint External Evaluation. This act shows high levels of commitment, foresight and leadership at senior levels of government that will be critical to success in building and maintaining Uzbekistan's core capacities under the International Health Regulations (IHR (2005)).

During the JEE mission, Uzbekistan's capacities in 19 technical areas were evaluated through a peer-to-peer, collaborative process that brought national subject matter experts together with members of the JEE team for a week of discussion, collaboration and field visits. This process led to consensus on scores and 75 priority actions across those 19 technical areas.

Prior to the COVID-19 pandemic Uzbekistan had been working hard to develop and improve its public health capabilities and capacities. The pandemic accelerated that process. Progress in some areas has been so rapid that there is a need to take stock and ensure that development remains balanced across all sectors and stakeholders, is responsive to current strengths, gaps and capacities, and engages the right people and institutions at the right times and in the right ways. The JEE was an ideal opportunity to review the pace of improvement and identify the most important areas on which to focus.

In view of this effort, five overarching recommendations emerged from the week. These address cross-cutting challenges affecting Uzbekistan's capacities across many of the different technical areas that are explored in greater depth in the JEE process.

These overarching recommendations are outlined below.

1. Write a summary plan that describes and facilitates all national processes for responding to IHR related events.
   While the JEE process revealed that Uzbekistan has strong and functional legal and operational frameworks for IHR-related activity, these are not explained or organised in a way that most international partners would easily recognise (for example, in a single centralized "pandemic plan," or a multisectoral all hazards emergency response plan based on a national strategic risk assessment). The lack of such a plan means that international partners and donors fail to recognise the nature and quality of the robust mechanisms in place in Uzbekistan, and potential opportunities for funding, operational partnerships and international recognition are easily missed.

2. Adopt a five-year National Action Plan for Health Security (NAPHS), based on the JEE report and contextualized for Uzbekistan, that prioritizes funding needs and creates time frames for each action.
   A NAPHS that emphasizes sustainable funding and intersectoral coordination, and which explicitly addresses staff incentives and retention, will strengthen the foundations for the health sector's existing efforts to build and maintain core capacities under the IHR (2005).

3. Strengthen the public health workforce across the human and animal health sectors by establishing a National Public Health Institute and a system of national accreditation.
   Strengthening intersectoral relationships during training will provide opportunities for future mentoring, subspeciality groupings, and personal and professional development. While the Uzbek workforce is dedicated, the country suffers from an ongoing brain drain of public health specialists. There is also a need to make the public health sector a more attractive career path for graduates. These innovations will allow Uzbekistan to build a robust cadre of public health specialists and make careers in public health attractive and rewarding.

4. Enhance existing programmes for regular training and exercising of all sectors, from local to national level, emphasizing joint work, cooperation and standard procedures, and establishing a mechanism for implementing the lessons thereby identified.
    Enhanced programmes should link existing training and exercise programmes in different sectors and ministries, and fill any gaps, under an overarching vision designed to build capacity under the IHR (2005) and strengthen interministerial and intersectoral collaboration. This programme should be carried out as far as possible in collaboration with partner countries and donors.

5. Adopt and implement the One Health and all-hazards approaches throughout government, across sectors and between ministries.
    Pathogens of animal origin are a growing global risk, as are antimicrobial resistance and food safety threats. The One Health approach is an urgent necessity for combatting present and future health threats in this era of globalization, emerging diseases and COVID-19. The Implementation of the One Health approach should be accompanied by approval of all necessary administrative mechanisms that formalize communication and coordination across sectors.

<p style="text-align:center">* * *</p>

The external JEE team is very grateful for the open and honest discussions we had in Tashkent, and Uzbekistan's willingness to engage with the JEE process.

We sincerely thank all participants in the JEE, and especially the JEE presenters, their teams and the interpreters who facilitated the discussion, for their hard work in preparing, presenting and hosting the team.

Uzbekistan scores and priority actions

The table below is the summary of the final scores for each technical area (details and priority actions are shown in the respective report chapters), as agreed by the national and external JEE teams. The principles of the scoring system are described in the JEE tool, available from:

https://www.who.int/emergencies/operations/international-health-regulations/joint-external-evaluations

Briefly, the scoring is a 5-step likert scale in which a score of 1 designates no capacity, and incremental obligatory criteria for each indicator must be fulfilled to reach the next level. A score of 5 designates that the country has the required capacity and is able to sustain it. Indicators are proxies and are chosen with the aim of representing a probable wider capability than the actual measured factor.

For ease of overview, a "traffic light" colouring system is used, whereby scores of 1 are shown as red; scores of 2 and 3 are yellow; and 4 and 5 are green.

X

SCORES AND PRIORITY ACTIONS

Technical areas	Indicator no.	Indicator	Score	Priority actions
PREVENT				
National legislation, policy and financing	P.1.1	The State has assessed, adjusted and aligned its domestic legislation, policies and administrative arrangements in all relevant sectors to enable compliance with the IHR	**3**	• Conduct an assessment of all relevant national legislation related to IHR and implement the resulting recommendations. • Develop legal instruments that ensure adequate financing for implementation of the IHR national action plan, including for responses to public health emergencies at all levels.
	P.1.2	Financing is available for the implementation of IHR capacities	**3**	
	P.1.3	A financing mechanism and funds are available for timely response to public health emergencies	**3**	
IHR coordination, communication and advocacy	P.2.1	A functional mechanism established for the coordination and integration of relevant sectors in the implementation of IHR	**4**	• Organize annual simulation exercises to test communication, coordination and collaboration between the IHR NFP and the identified state bodies responsible for IHR implementation. • Conduct a mapping exercise to identify focal points across all state bodies for national implementation of the IHR, to improve and enhance multisectoral communication and collaboration. • Complete and implement the digital information sharing system(s) currently in development, to improve timely communication with the identified state bodies responsible for IHR implementation. • Approve and implement the *Plan of Action on Prevention and Mitigation of Natural and Man-made Emergency Consequences* before the end of 2022.
Antimicrobial resistance	P.3.1	Effective multisectoral coordination on AMR	**2**	• Establish AMR surveillance activities in the animal sector according to WOAH PVS recommendations and build on lessons and systems established within the human health AMR surveillance system. Further steps for the animal sector would include IPC and limiting the use of antimicrobials in animal production. • Finalize and implement a multisectoral National AMR Action Plan, specifically including the initiation of a functional coordination mechanism for identified stakeholders across the human and animal health sectors. Eventually, coordination should be facilitated through a One Health platform and should include zoonotic diseases and food safety.
	P.3.2	Surveillance of AMR	**2**	
	P.3.3	Infection prevention and control	**2**	

Technical areas	Indicator no.	Indicator	Score	Priority actions
	P.3.4	Optimize use of antimicrobial medicines in human and animal health and agriculture	2	• Review existing international AMR projects (e.g., the establishment of Uzbekistan's five pilot surveillance sites) to identify challenges to the implementation of the national programme, with the ultimate aim of establishing a routine nationwide AMR surveillance programme and ensuring cross sectoral linkages between the human and animal sectors. • Begin reporting available AMR surveillance data to relevant GLASS databases with the aim of expanding Uzbekistan's contribution of data to the global AMR surveillance system. • Enforce the prescription requirement for purchasing antimicrobials at pharmacies, and establish appropriate AMR use practices (i.e. antimicrobial stewardship) among health care providers in clinical facilities.
Zoonotic disease	P.4.1	Coordinated surveillance systems in place in the animal health and public health sectors for zoonotic diseases/pathogens identified as joint priorities	4	• Establish a One Health Coordination Committee that provides a robust platform for intersectoral engagement on zoonoses, AMR and food safety. This recommendation aligns with those of the WOAH PVS evaluations and gap analysis recently completed in Uzbekistan.
	P.4.2	Mechanisms for responding to infectious and potential zoonotic diseases established and functional	4	• Develop SOPs to strengthen surveillance of and response to zoonotic diseases (including for wildlife), including but not limited to SOPs for sample collection and transport, use of laboratory diagnostics, exchange of information, and joint response actions. • Update the list of zoonotic diseases of public health concern to reflect epidemiologically significant zoonoses prevalent in Uzbekistan. • Establish real-time, interoperable electronic reporting systems that facilitate joint action by the human and animal health sectors and improve cross-sectoral collaboration at provincial level. • Create emergency funding systems for the human and animal sectors that include compensation/indemnities for any losses caused by timely investigation and control of zoonotic disease outbreaks.

Technical areas	Indicator no.	Indicator	Score	Priority actions
Food safety	P.5.1	Surveillance systems in place for the detection and monitoring of food-borne diseases and food contamination	3	• Establish a dedicated national food safety authority or agency to coordinate and streamline information sharing and responses to outbreaks of foodborne diseases across relevant sectors.
	P.5.2	Mechanisms are established and functioning for the response and management of food safety emergencies	2	• Develop a training plan to increase capacity in epidemiology and food safety risk assessment and communication. • Appoint an INFOSAN contact person. • Conduct a review of food safety legislation. Following the review, update legislation based on the results to bring it in line with international regulations and the requirements of the SPS agreement. • Introduce electronic reporting systems and modern food safety approaches at various levels (including but not limited to HACCP, GMP and ISO standards).
Biosafety and biosecurity	P.6.1	Whole-of-government biosafety and biosecurity system in place for all sectors (including human, animal and agriculture facilities)	2	• Revise the national "dangerous pathogens and toxins" list with multisectoral partners to ensure it reflects key pathogens that WHO, WOAH, and FAO standards require Member States to detect, assess, report, and respond to. Formalize the final list through an appropriate multisectoral agreement. • Enforce national legislation "On Biological Safety of the Republic of Uzbekistan" to modernize and codify biosafety and biosecurity authorities, ensure sustained funding, and establish national implementation requirements. The updated legislation should cover national biorisk assessments and management, enforcement, training standards, quality management standards, and internal and external audit/validation procedures. • In coordination with Uzbekistan's National Health System Strengthening Initiative, develop and implement a national biosafety and biosecurity information management system that enables multisectoral monitoring and maintenance of inventory records for all priority pathogens and toxins, and manages facility licensing records and facility incident/containment reporting and investigation. • Perform a multisectoral biorisk assessment that includes the human, animal and agriculture sectors. Review practices and procedures for detection by local level clinicians or laboratories up to national reference laboratory confirmatory testing and maintenance of national inventories. Determine the full scope of requirements for biosecurity, biosafety, and biocontainment of infectious agents and toxins.

Technical areas	Indicator no.	Indicator	Score	Priority actions
	P.6.2	Biosafety and biosecurity training and practices in all relevant sectors (including human, animal and agriculture)	3	• Expand current national achievements in accreditation and certification that allow national laboratories to engage, partner, and share with relevant international bodies, for example in sample sharing and certification and maintenance of BSL3 laboratories. Pursue ISO 35001 Biorisk management for laboratories and related facilities, starting with national laboratories then moving to subsequent tiers of the system.
Immunization	P.7.1	Vaccine coverage (measles) as part of national programme	4	• Implement the electronic immunization database at all levels of the health system. • Create and operationalize a system of monitoring and reporting AEFI at all health facilities.
	P.7.2	National vaccine access and delivery	4	• Develop an outreach and communication campaign that encourages primary health care physicians proactively to offer science-based immunization advice and vaccinations to their patients. • Extend computerized monitoring of vaccine store management (EVSM) to districts and ensure full coverage and interconnection with the national system. This should cover both new and current equipment.
DETECT				
National laboratory system	D.1.1	Laboratory testing for detection of priority diseases	3	• Reassess and revise the national priority list of pathogens with multisectoral partners to ensure it reflects key pathogens and toxins that WHO, WOAH, and FAO standards require Member States to detect, assess, report, and respond to. Approve and publish the final comprehensive list through an appropriate multisectoral agreement.
	D.1.2	Specimen referral and transport system	3	• In coordination with the Uzbekistan 2030 Health Systems initiative and efforts to strengthen the national health information system, develop and implement a national multisectoral laboratory information management system to enhance reporting, monitoring and information sharing across the entire national laboratory system.

Technical areas	Indicator no.	Indicator	Score	Priority actions
	D.1.3	Effective national diagnostic network	3	• Establish and fund a national laboratory quality management programme under the authority of the National Reference Laboratory. The National Reference Laboratory should oversee national laboratory engagement, partnerships, and sharing with international accreditation and certification bodies (e.g. sample sharing). This programme should include alignment with international standards, accreditations, and guidance (e.g. ISO standards and those of the Clinical and Laboratory Standards Institute, the WHO Biosafety Manual and the Laboratory Quality Management System).
	D.1.4	Laboratory quality system	3	
				• Establish a national multisectoral referral transportation programme that is trained, capable, and sufficiently well-funded to ensure that samples for advanced diagnostics can be shipped to the national laboratory system from at least 80% of districts.
				• Assess risks to the national laboratory supply chain. Based on the results of the risk assessment, develop a plan to ensure supply chain risk management is in place to assure that high quality laboratory supplies are available in time of need.
Surveillance	D.2.1	Surveillance systems	3	• Assess the potential added value of event-based surveillance (EBS) and, based on the results of the assessment, conduct the necessary training and implement the necessary EBS at all levels.
	D.2.2	Use of electronic tools	3	• Implement the recommendations of the recent evaluation of the national surveillance system.
				• Assess ICT resources at all levels of the national surveillance system and allocate resources to provide or update equipment and capacity as necessary.
	D.2.3	Analysis of surveillance data	4	• Participate in international training activities to increase local epidemiological capacity and offer exchange visits with international partner institutions for technical experts.
				• Develop and implement a statutory electronic surveillance system for all levels of the veterinary, wildlife and environment sectors. Ensure interoperability with the systems used in other sectors.

Technical areas	Indicator no.	Indicator	Score	Priority actions
Reporting	D.3.1	System for efficient reporting to FAO, WOAH and WHO	3	• Develop and implement all SOPs, guidelines and training programmes required to ensure the reporting of all-hazards health emergencies, including chemical incidents, radiation emergencies, and other man-made and natural disasters.
	D.3.2	Reporting network and protocols in country	3	• Review and expand the scope of reporting by the IHR NFP, and ensure that all potential public health emergencies of international concern (PHEIC) are notified to WHO.
				• Conduct regular trainings on the use of IHR Annex 2. Organize and implement regular, multisectoral tabletop and simulation exercises designed to enable the notification of PHEIC within 24 hours.
Human resources (animal and human health sectors)	D.4.1	An up-to-date multisectoral workforce strategy is in place	3	• Scale up the continuous education programme (CPE) and ensure that relevant hazard specific programmes, professional bodies, and institutions of higher learning perform regular updates of the curricula in collaboration with relevant partners.
	D.4.2	Human resources are available to effectively implement IHR	3	
	D.4.3	In-service trainings are available	3	• Scale up the FETP programme to increase uptake and thereby enhance epidemiological capacity at intermediate and local levels.
	D.4.4	FETP or other applied epidemiology training programme in place	4	• Introduce an FETP-V programme designed to enhance workforce capacity for addressing zoonotic infectious hazards within the One Health framework.
RESPOND				
Emergency Preparedness	R.1.1	Strategic emergency risk assessments conducted and emergency resources identified and mapped	3	• Finalize and approve the updated national multisectoral multi-hazard plan and revise SOPs accordingly.
	R.1.2	National multi-sectoral multi-hazard emergency preparedness measures, including emergency response plans, are developed, implemented and tested	3	• Implement a strategic health emergency risk assessment that includes hazard prioritization, considering exposures, capacities and vulnerabilities in all relevant sectors at subnational levels.
				• Conduct a mapping exercise that catalogues all national and subnational resources and expertise for emergency response.
				• Conduct a review of inventory and logistical protocols and implement any resulting recommendations.
				• Develop and implement training on all-hazards emergency preparedness and response at subnational level, emphasizing cross-sectoral communication and emergency management.

Technical areas	Indicator no.	Indicator	Score	Priority actions
Emergency response operations	R.2.1	Emergency response coordination	3	• Integrate the veterinary, wildlife and environment sectors into the Coordinating Commission.
	R.2.2	Emergency operations centre (EOC) capacities, procedures and plans	3	• Conduct strategic risk assessments and resource mapping in all administrative areas.
	R.2.3	Emergency Exercise Management Programme	4	• Implement the existing PHEOC development plan in full.
Linking public health and security authorities	R.3.1	Public health and security authorities (e.g. law enforcement, border control, customs) linked during a suspect or confirmed biological, chemical or radiological event	4	• Develop risk assessment tools to assist in risk prioritization (forecasting) and related SOPs that support multisectoral engagement in risk assessment. • Conduct a review of forecasting at national, regional and district levels and implement the recommendations to facilitate the placement of countermeasures, personnel and resources.
Medical countermeasures and personnel deployment	R.4.1	System in place for activating and coordinating medical countermeasures during a public health emergency	3	• Bring plans that are described in Decrees, Resolutions and Orders into clear focus by preparing short operational plans and SOPs that clarify roles and responsibilities, so they be exercised and monitored.
	R.4.2	System in place for activating and coordinating health personnel during a public health emergency	3	• Develop robust SOPs that permit timely receipt of medical countermeasures in cases of acute events that inflict mass causalities (e.g. earthquakes, cyclones, chemical emergencies, etc.).
	R.4.3	Case management procedures implemented for IHR relevant hazards	4	• Create medium and long-term plans to develop an Uzbekistan Emergency Medical Team under WHO mentorship, and gain WHO accreditation for the team as an internationally deployable asset. • Review case management protocols and expand them to include robust protocols for managing chemical and radiological cases. Integrate these into training across a wide range of medical and health-aligned professions.

Technical areas	Indicator no.	Indicator	Score	Priority actions
Risk communication	R.5.1	Risk communication systems for unusual/unexpected events and emergencies	2	• Strengthen the national all-hazards risk communication plan to broaden its scope, update it in line with international best practices, and embed risk communication as a strategic function within the health emergency response system. • Review the human and financial resources allocated to risk communication to ensure they align with the objectives of the updated plan. Make full use of possibilities for collaboration and sharing resources both within government (e.g. with the Ministry of Emergency Situations) and with partners. • Make monitoring and analysis of rumours and signals from social media and offline social listening a joint responsibility shared between the Emergency Operations Centre and the Risk Communication team. • Make an official request from the Ministry of Health to WHO to provide technical assistance to update and strengthen the national all-hazards risk communication plan, and implement a programme of tailored capacity building that upgrades risk communication functions in line with the priorities identified in the plan. In the longer term, the Ministry should ensure risk communication is a priority area for technical assistance in its bi-annual WHO Country Cooperation Strategy.
	R.5.2	Internal and partner coordination for emergency risk communication	4	
	R.5.3	Public communication for emergencies	4	
	R.5.4	Communication engagement with affected communities	2	
	R.5.5	Addressing perceptions, risky behaviours and misinformation	3	
IHR-RELATED HAZARDS AND POINTS OF ENTRY				
Points of entry	PoE.1	Routine capacities established at points of entry	3	• Establish a sustainable vector surveillance and control plan addressing the importation of vectors and their associated pathogens at Uzbek points of entry. • In partnership with relevant stakeholders, develop SOPs that clearly integrate the points of entry contingency plan into the National Emergency Response Plan. Implement these SOPs. • Establish mutual agreements with neighbouring countries that develop joint capacities for early detection and notification of, and response to, public health events at ground crossings.
	PoE.2	Effective public health response at points of entry	3	

Technical areas	Indicator no.	Indicator	Score	Priority actions
Chemical events	CE.1	Mechanisms established and functioning for detecting and responding to chemical events or emergencies	3	• Strengthen the legal basis for regulating hazardous chemicals and responding to chemical events. Clarify the responsibilities of different sectors and stakeholders and establish mechanisms of enforcement, systems for collecting and exchanging information, and principles of chemical risk assessment. Make continuous risk assessments a legal requirement.
	CE.2	Enabling environment in place for management of chemical events	3	• Establish a poison centre according to WHO recommendations. • Create databases containing information on hazardous chemicals and chemical products, and their producers and importers. Make the database accessible online for authorized stakeholders. • Implement the Globally Harmonized System for Classification and Labelling of Chemicals and their Mixtures. • Develop a training programme to strengthen capacities for sound management of chemicals and effective responses to chemical emergencies in the health sector. Establish a national roster of experts in chemicals management.
Radiation emergencies	RE.1	Mechanisms established and functioning for detecting and responding to radiological and nuclear emergencies	4	• Consolidate legal instruments on radiation safety and nuclear security in line with international basic safety standards (i.e. IAEA GSR Part 7) and join the Conventions on Notification and Assistance. • Strengthen cross-sectoral coordination in radiation emergency preparedness and response (including all-hazards surveillance, reporting, preparedness, and response).
	RE.2	Enabling environment in place for management of radiological and nuclear emergencies	4	• Develop case management protocols, resources and capacities for diagnosis and treatment of radiation injuries and internal contamination, individual monitoring and dose assessment, and addressing the non-radiological impact of nuclear emergencies. • Ensure access to external expertise through international cooperation for research and development in radiation emergency medicine.

Scores: 1=No capacity; 2=Limited capacity; 3=Developed capacity; 4=Demonstrated capacity; 5=Sustainable capacity.

PREVENT

NATIONAL LEGISLATION, POLICY AND FINANCING

INTRODUCTION

The International Health Regulations (IHR) (2005) provide obligations and rights for States Parties. In some States Parties, implementation of the IHR (2005) may require new or modified legislation. Even if new or revised legislation may not be specifically required, States may still choose to revise some regulations or other instruments in order to facilitate IHR implementation and maintenance. Implementing legislation could serve to institutionalize and strengthen the role of IHR (2005) and operations within the State Party. It can also facilitate coordination among the different entities involved in their implementation. See detailed guidance on IHR (2005) implementation in national legislation at http://www.who.int/ihr/legal_issues/legislation/en/index.html. In addition, policies that identify national structures and responsibilities as well as the allocation of adequate financial resources are also important.

> ### Target
>
> *Adequate legal framework for States Parties to support and enable the implementation of all their obligations and rights made by the IHR. Development of new or modified legislation in some States Parties for the implementation of the Regulations. Where new or revised legislation may not be specifically required under a State Party's legal system, the State may revise some legislation, regulations or other instruments in order to facilitate their implementation in a more efficient, effective or beneficial manner. States Parties ensure provision of adequate funding for IHR implementation through the national budget or other mechanisms. Country has access to financial resources for the implementation of IHR capacities. Financing that can be accessed on time and distributed in response to public health emergencies, is available.*

LEVEL OF CAPABILITIES

Legislation and Policy

Uzbekistan has laws and by-laws to support the implementation of the IHR (2005), including in responses to chemical and radiation hazards. Legislation is enabled to cut across relevant government agencies by the Resolution of the Cabinet of Ministers of the Republic of Uzbekistan *On measures to implement the International Health Regulations in the Republic of Uzbekistan No. 220*, dated 31 July 2015. This resolution designates the Ministry of Health (MOH) as the IHR National Focal Point (IHR NFP) and lists 17 public health and economic authorities involved in the implementation of IHR (2005). The Ministry of Health's Sanitary and Epidemiological Service (SES) is responsible for detecting, assessing, and monitoring public health risks, and the Ministry of Emergency Services (MES) coordinates emergency responses across all sectors.

A multisectoral interagency, the Emergency Anti-Epidemic commission, develops policies to prevent, detect and respond to infectious, chemical and radiation threats. This commission has a broad range of protocols (89 at the time of the JEE) that can be adapted to specific health emergencies or events. These

include protocols to adjust public health and social measures in response to the COVID-19 pandemic that was ongoing at the time of this evaluation.

Financing

A budget is allocated to the Ministry of Health for the prevention and elimination of outbreaks and to finance epidemic control measures. The Ministry of Emergency Services has funding reserves at provincial and district level to enable rapid responses to natural and man-made emergencies. In 2021, the Ministry of Health budget was 12% of the state budget, a proportion of which was allocated to IHR implementation. During emergencies, Uzbekistan may also receive financial assistance from international organizations and banks such as WHO, the UN Development Programme (UNDP), the Organization for Security and Co-operation in Europe (OSCE), the World Bank, the European Bank for Reconstruction and Development (EBRD) and the Islamic bank.

Uzbekistan does not, however, have any budget line dedicated to the IHR NFP for coordinating IHR core capacity building, preparedness activities and/or its role in reporting and information sharing. The dedication of domestic financial resources specifically to IHR-related activities, including the work of the IHR NFP as coordinating body, would strengthen and mainstream the role of the IHR NFP. It would also improve its ability to support the various established technical working groups responsible for functions under the IHR (2005).

Indicators and scores

P.1.1 The State has assessed, adjusted and aligned its domestic legislation, policies and administrative arrangements in all relevant sectors to enable compliance with the IHR – Score 3

Strengths and best practices
- The Republic of Uzbekistan has laws and administrative policies that facilitate and coordinate implementation of the IHR (2005).
- Interagency technical working groups provide mechanisms for developing policies on prevention and control measures aligned with IHR core capacities.

Challenges and areas that need strengthening
- Uzbekistan has not carried out an assessment to identify gaps in IHR implementation, nor has it developed an action plan that would enable complete implementation of a multisectoral, all-hazards approach to IHR implementation.
- Uzbekistan does not have specific legislation to facilitate the multisectoral coordination function of the IHR NFP.
- Uzbekistan does not have a legal framework in place to facilitate shipment of biological specimens outside the country. This limits access to global and international resources.

P.1.2 Financing is available for the implementation of IHR capacities – Score 3

Strengths and best practices
- The budget of the Ministry of Health was increased in 2021 from 9% of the state budget to 12%. A proportion of this is allocated to IHR implementation.
- Reserve funds are available at national and subnational levels that can be released during health emergencies. Systems are in place that enable Uzbekistan to receive financial assistance from international donors in emergencies.
- The Ministry of Emergency Services has the authority to release funds to various relevant ministries to prevent, control, and respond to epidemics.

PREVENT

Challenges and areas that need strengthening

- Uzbekistan has not mapped financial needs and gaps to enhance the efficiency and effectiveness of IHR coordination activities.

P.1.3 A financing mechanism and funds are available for the timely response to public health emergencies – Score 3

Strengths and best practices

- A mechanism has been built into legislation to provide financing to the relevant entities at all levels of the country when emergencies occur. This enables and facilitates timely responses to public health emergencies.

Challenges and areas that need strengthening

- There is limited evidence on whether the financing mechanisms in place for emergencies do in fact provide timely responses. An evidence-based review would allow Uzbekistan to strengthen these mechanisms further.

Recommendations for priority actions

- Conduct an assessment of all relevant national legislation related to IHR and implement the resulting recommendations.

- Develop legal instruments that ensure adequate financing for implementation of the IHR national action plan, including for responses to public health emergencies at all levels.

IHR COORDINATION, COMMUNICATION AND ADVOCACY

INTRODUCTION

The effective implementation of the IHR requires multisectoral/multidisciplinary approaches through national partnerships for efficient alert and response systems. Coordination of nationwide resources, including the designation of a national IHR focal point (NFP), and adequate resources for IHR implementation and communication, is a key requisite for a functioning IHR mechanism at country level.

> ### Target
>
> *Multisectoral/multidisciplinary approaches through national partnerships that allow efficient, alert and response systems for effective implementation of the IHR. Coordinate nationwide resources, including sustainable functioning of a National IHR Focal Point – a national centre for IHR communications which is a key obligation of the IHR – that is accessible at all times. States Parties provide WHO with contact details of National IHR Focal Points, continuously update and annually confirm them.*

LEVEL OF CAPABILITIES

The Uzbekistan Ministry of Health is the country's National IHR Focal Point (IHR NFP). Its role, rights and required functions – including notifying and reporting to the WHO IHR Regional Contact Point; distributing information to relevant ministries, institutions and agencies; and ensuring and enhancing implementation of the IHR in Uzbekistan – are outlined in the Resolution of the Cabinet of Ministers of the Republic of Uzbekistan *On measures to implement the International Health Regulations in the Republic of Uzbekistan No. 220* dated 31 July 2015, and its relevant decrees.

The IHR NFP is located in the newly established Public Health Emergency Operations Centre (PHEOC) unit within the Ministry of Health. The PHEOC unit was set up to strengthen communication, information management, coordination, and collaboration with partners during public health emergencies, and has been operating since June 2021. Placing the IHR NFP functions within the PHEOC unit enables the NFP to build on and complement standard operating procedures (SOPs) and mechanisms for multisectoral IHR communication and collaboration. This incorporates enhancing information sharing by including state bodies responsible for IHR implementation beyond tasks related directly to emergency response activities.

National multisectoral communication and collaboration mechanisms, including functions to evaluate and improve their effectiveness, are included in an annex to the *Plan of Action on Prevention and Mitigation of Natural and Man-made Emergency Consequences* (hereafter referred to as the "Plan of Action"), which is currently in the final stages of updating before implementation. This multiyear Plan of Action is overseen by the Ministry of Emergency Services, is updated to incorporate lessons when necessary, and involves IHR-implementing state bodies. The Plan of Action guides the development of annual action plans that include monitoring and evaluation activities such as simulation exercises and intersectoral trainings within and between IHR-implementing ministries, institutions and agencies. The updated multiyear Plan of Action needs to be adopted as soon as possible to allow the rapid development of annual action plans that strengthen national coordination and communication for IHR implementation.

PREVENT

Simulation exercises are performed regularly at national and subnational levels to evaluate and assess elements of IHR implementation, including multisectoral and interagency coordination and communication mechanisms. The IHR NFP has also participated in the Joint Assessment and Detection of Events (JADE) exercise, a functional simulation exercise organized by the WHO Regional Office for Europe to practice communication between IHR NFPs and WHO Regional IHR Contact Points. This exercise includes testing event-based communication and using the decision-making matrix in Annex 2. As part of strengthening IHR implementation and the required NFP functions, national simulation exercises tailored to test IHR communication and coordination between and within IHR implementing state bodies should be conducted regularly.

Uzbekistan has fulfilled the requirement under IHR Article 54 to report annually on the implementation of IHR capacities every year since the 2018 launch of the State Party Annual Self-assessment Reporting (SPAR) tool. Furthermore, during 2020, Uzbekistan was one of the first Member States in the WHO European Region to conduct an intra-action review to assess the national response to COVID-19.

Indicators and scores

P.2.1 A functional mechanism established for the coordination and integration of relevant sectors in the implementation of IHR – Score 4

Strengths and best practices

- The IHR NFP is part of the Cabinet of Ministers of the Republic of Uzbekistan (through the Ministry of Health), and the NFP function is located within the newly established PHEOC unit.

- The ministries, institutions and agencies responsible for implementing the IHR are outlined in national legislation, which also defines the agencies and entities within the listed state bodies that are responsible for communication and collaboration.

- Uzbekistan is committed to monitoring and evaluation (M&E) of IHR implementation at all levels, including by participating in international capacity building activities related to NFP functions.

- NFP contact details are updated continuously and confirmed annually to the WHO IHR Regional Contact Point.

- A functional mechanism is in place for multisectoral information sharing on detection, incidence, and treatment of zoonotic diseases in humans and animals. This is established under an intersectoral plan shared between the Ministry of Health and the State Committee of Veterinary and Livestock Development ("State Veterinary Committee," or SVC).

- In response to COVID-19, the Republic of Uzbekistan developed an action plan to prevent importation and spread of SARS-CoV-2. This includes protocols of the Republican Special Commission that were adopted to enable implementation and calibration of the necessary public health and social measures (PHSM).

Challenges and areas that need strengthening

- The coordination and communication mechanisms necessary for IHR implementation exist in Uzbekistan but need strengthening to enable timely intersectoral communication between the IHR NFP and other relevant agencies and entities. Enhanced, quicker sharing of information would enable stronger coordination and collaboration.

- The mechanism for multisectoral information sharing on detection, incidence, and treatment of zoonotic diseases in humans and animals is through monthly and quarterly paper-based reports. This approach is vulnerable to a range of operational issues and causes delays that hinder timely exchange of information between and within the human and animal health sectors at all levels. This format also limits constructive, interactive engagement between sectors.

Recommendations for priority actions

- Organize annual simulation exercises to test communication, coordination and collaboration between the IHR NFP and the identified state bodies responsible for IHR implementation.

- Conduct a mapping exercise to identify focal points across all state bodies for national implementation of the IHR, to improve and enhance multisectoral communication and collaboration.

- Complete and implement the digital information sharing system(s) currently in development, to improve timely communication with the identified state bodies responsible for IHR implementation.

- Approve and implement the *Plan of Action on Prevention and Mitigation of Natural and Man-made Emergency Consequences* before the end of 2022.

ANTIMICROBIAL RESISTANCE

INTRODUCTION

Bacteria and other microbes evolve in response to their environment and inevitably develop mechanisms to resist being killed by antimicrobial agents. For many decades, the problem was manageable as the growth of resistance was slow and the pharmaceutical industry continued to create new antibiotics.

Over the past decade, however, this problem has become a crisis. Antimicrobial resistance is evolving at an alarming rate and is outpacing the development of new countermeasures capable of thwarting infections in humans. This situation threatens patient care, economic growth, public health, agriculture, economic security and national security.

> ### Target
>
> *A functional system in place for the national response to combat antimicrobial resistance (AMR) with a One-Health approach, including:*
>
> *a) Multisectoral work spanning human, animal, crops, food safety and environmental aspects. This comprises developing and implementing a national action plan to combat AMR, consistent with the Global Action Plan (GAP) on AMR.*
>
> *b) Surveillance capacity for AMR and antimicrobial use at the national level, following and using internationally agreed systems such as the WHO Global Antimicrobial Resistance Surveillance System (GLASS) and the WOAH global database on use of antimicrobial agents in animals.*
>
> *c) Prevention of AMR in health care facilities, food production and the community, through infection prevention and control measures.*
>
> *d) Ensuring appropriate use of antimicrobials, including assuring quality of available medicines, conservation of existing treatments and access to appropriate antimicrobials when needed, while reducing inappropriate use.*

LEVEL OF CAPABILITIES

The National Antimicrobial Resistance (AMR) Programme of the Republic of Uzbekistan is focused on human health and currently has only limited activities in the animal health sector. A draft inter-institutional national action plan does exist (the National AMR Control Programme 2022-2026) and reflects all elements of the WHO Global Action Plan on AMR. Although relevant stakeholders have been identified and the importance of cross-sectoral work is understood, multisectoral coordination and collaboration do not occur.

A state-of-the-art national AMR Centre with ISO-accredited referral laboratory capacities was established in 2017, but only for human health. As part of a range of international projects, five pilot sites in human health facilities conduct AMR surveillance on eight specified pathogens of concern. AMR data are not yet reported to the Central Asian and European Surveillance of Antimicrobial Resistance (CAESAR) or the Global Antimicrobial Surveillance System (GLASS), only information about the sites. There is a plan to submit data to GLASS in the future, along with the expansion of AMR surveillance across all provinces.

Surveys on public perception and consumption of antimicrobials have been conducted and are used to inform policy. Community surveillance protocols are being developed for clinically significant microorganisms.

The lack of activity on AMR surveillance and control in the animal health sector (e.g. in livestock, animal production, food safety, etc.) and the environment limits Uzbekistan's ability to capture sufficient data and make progress in addressing this critical, future global health emergency.

An infection prevention and control (IPC) programme is in place in human health facilities, governed by several regulatory documents and enhanced in 2017 with the establishment of IPC commissions in all facilities. There are no clear elements comprising an IPC system in the animal sector, although private farms do employ veterinarians and food safety is covered by laws on the quality and safety of food products.

As regards medicines policy and regulations, Uzbekistan has legislation and systems for an essential medicines list and rational use of medicines and has made good progress on strengthening prescription practices. Solid engagement with the pharmaceutical industry is a national strength, but regulations need to be implemented better. Antimicrobial stewardship activities are planned in clinical practice at health facility level.

There is a clear opportunity for Uzbekistan to build on its extensive AMR activities in human health, and particularly surveillance projects, to strengthen programmes and enhance critical activities in the animal health and environmental sectors as well. The national health sector reform currently in progress is also a good opportunity to incorporate and integrate holistic elements on AMR prevention and control throughout the system.

Indicators and scores
NB Uzbekistan would exceed the scores in this section if it had specific, demonstrable AMR activities in the animal health sector.

P.3.1 Effective multi-sector coordination on AMR – Score 2

Strengths and best practices
- Uzbekistan has identified a broad set of stakeholders for multisectoral coordination of AMR activities. These include the Ministry of Health, the SES, the Agency for Development of the Pharmaceutical Sector and Medical Equipment, the SVC, and the State Plant Quarantine Inspection service under the Cabinet of Ministers of the Republic of Uzbekistan.

Challenges and areas that need strengthening
- The draft National AMR Control Programme 2022-2026 and an accompanying operational plan and budget need to be approved and implemented immediately.
- Uzbekistan would benefit from establishing an intersectoral AMR working group, comprised of key stakeholders and tasked with driving implementation of the action plan.

P.3.2 Surveillance of AMR – Score 2

Strengths and best practices
- The AMR Centre established by the Cabinet of Ministers was opened in 2017. It facilitates surveillance, conducts research and confirmatory testing, and develops protocols. This is the only accredited referral laboratory in Uzbekistan.
- Antibiotic susceptibility testing (AST) and consumption surveys generate data that are used to improve clinical guidelines and rational prescribing practices.

Challenges and areas that need strengthening

- AMR surveillance does not exist in the animal sector and needs to be initiated without delay.

- Reporting to CEASAR from five pilot sites has been conducted as part of international projects since 2016, but only covers descriptions of activities. Routine AMR surveillance needs to be expanded to all provinces and data should be reported to GLASS – which has a broader One Health scope covering all necessary AMR data, including antimicrobial consumption.

- A protocol for conducting AMR surveillance of community acquired infections has been developed (though not yet implemented).

P.3.3 Infection prevention and control – Score 2

Strengths and best practices

- Regulatory documents on IPC exist and are designed to prevent health care associated infections (HCAI).

- A national plan is in place to prevent infections in animals.

- To prevent the emergence and spread of HCAI at health facilities, plans and necessary measures have been developed as part of sanitary rules and regulations. These are overseen by a commission in each healthcare facility. Hospitals with more than 200 beds are expected to have an epidemiologist on their staff to oversee infection control.

Challenges and areas that need strengthening

- Measures are required to strengthen infection control in animal husbandry and livestock management, and to monitor infection control measures beyond vaccination effectiveness. This requirement is in line with the recommendations of recent World Organisation of Animal Health (WOAH) Performance of Veterinary Services (PVS) evaluations.

P.3.4 Optimize use of antimicrobial medicines in human and animal health and agriculture – Score 2

Strengths and best practices

- The pharmaceutical industry has been engaged with authorities in developing measures to ensure compliance with laws for prescribing and dispensing antimicrobials in the health sector.

- A system has been established and pilot tested for collecting and analysing antimicrobial consumption data. Analysis has been aligned with international recommendations.

Challenges and areas that need strengthening

- Over-the-counter sales of antimicrobials without prescription is common in both human and veterinary pharmacies despite the existence of laws banning such practices. Enforcement of legislation is a gap that needs filling.

- Stewardship and appropriate use of antimicrobials in animal food production (e.g. phasing out the use of antibiotics for growth promotion) needs to be addressed through assessment and development of functional measures.

Recommendations for priority actions

- Establish AMR surveillance activities in the animal sector according to WOAH PVS recommendations and build on lessons and systems established within the human health AMR surveillance system. Further steps for the animal sector would include IPC and limiting the use of antimicrobials in animal production.

- Finalize and implement a multisectoral National AMR Action Plan, specifically including the initiation of a functional coordination mechanism for identified stakeholders across the human and animal health sectors. Eventually, coordination should be facilitated through a One Health platform and should include with zoonotic diseases and food safety.

- Review existing international AMR projects (e.g., the establishment of Uzbekistan's five pilot surveillance sites) to identify challenges to the implementation of the national programme, with the ultimate aim of establishing a routine nationwide AMR surveillance programme and ensuring cross sectoral linkages between the human and animal sectors.

- Begin reporting available AMR surveillance data to relevant GLASS databases with the aim of expanding Uzbekistan's contribution of data to the global AMR surveillance system.

- Enforce the prescription requirement for purchasing antimicrobials at pharmacies, and establish appropriate AMR use practices (i.e. antimicrobial stewardship) among health care providers in clinical facilities.

ZOONOTIC DISEASES

INTRODUCTION

Zoonotic diseases are communicable diseases that can spread between animals and humans. These diseases are caused by viruses, bacteria, parasites and fungi carried by animals, insects or inanimate vectors that aid in its transmission. Approximately 75% of recently emerging infectious diseases affecting humans are of animal origin; and approximately 60% of all human pathogens are zoonotic.

> ### Target
> *Functional multi-sectoral, multidisciplinary mechanisms, policies, systems and practices are in place to minimize the transmission of zoonotic diseases from animals to human populations.*

LEVEL OF CAPABILITIES

Uzbekistan has had a multisectoral action plan on zoonotic diseases in place since November 2019. Despite this, coordination between relevant sectors is ad hoc rather than systematic.

The principal institutions involved in response activities are the SES, the SVC and the Ministry of Emergency Services. At operational levels in these agencies there are joint risk assessments, training workshops, simulation exercises, and sharing of reports on case incidence, along with a range of tools and regulatory documents.

A commission is in place at national level that undertakes specific, coordinated responses to outbreaks of zoonotic disease. According to the documentation provided, outbreak investigation and response are conducted by each sector in a collaborative and coordinated manner. Specific examples were provided of intersectoral actions for preparedness and response activities for Crimean Congo Haemorrhagic Fever (CCHF) and rabies.

One area of concern is the clear lack of coordination and exchange of information between human health and veterinary laboratories. The growing importance of the One Health approach imposes a need for Uzbekistan to expand coordination mechanisms that deal with zoonotic diseases and include sectors such as wildlife and the environment. World Organisation for Animal Heath PVS missions have taken place, including a gap analysis in 2019 and various One Health workshops. These place Uzbekistan in a good position to formalize the One Health platform.

A list of zoonotic diseases of public concern exists but needs to be reviewed to ensure that these diseases are in fact "of public health concern" for the purposes of the IHR, and are epidemiologically significant in Uzbekistan. While rabies, brucellosis, CCHF and anthrax are on the list and are important for both animal and public health, foot-and-mouth disease is on the list because of potential economic damage to the livestock sector.

Databases are being digitized and there is a plan to integrate these into the overall health system for improved interoperability.

Indicators and scores

P.4.1 Coordinated surveillance systems in place in the animal health and public health sectors for zoonotic diseases/pathogens identified as joint priorities – Score 4

Strengths and best practices

- Coordination mechanisms exist across the animal and human health sectors and enable joint action to respond to zoonotic disease. These include training workshops, practical activities, information sharing, risk assessment and outbreak investigations.

- A list of priority zoonotic diseases for surveillance and control has been agreed between the human and animal health sectors.

Challenges and areas that need strengthening

- The priority list of zoonotic diseases needs to be updated to reflect those diseases that are of public health concern rather than those "of public concern." This would mean, for example, removing foot and mouth disease, which is not a threat to human health, from the list and adding echinococcus, which imposes a large human disease burden.

- Laboratories across the human and animal sectors need to collaborate, coordinate and communicate with each other, thereby enhancing and strengthening zoonotic disease surveillance and response capabilities.

P.4.2 Mechanisms for responding to infectious and potential zoonotic diseases established and functional – Score 4

Strengths and best practices

- Methods for investigating outbreaks and deploying rapid response teams (RRTs) are clearly outlined for zoonotic diseases and food safety events.

- Examples were provided of Ministry of Emergency Services coordinated joint activities between the SVC and the SES, including trainings and simulation exercises for responding to CCHF and teaching children about preventing dog bites/avoiding rabies.

- Uzbekistan has a multisectoral action plan for zoonotic diseases and has experience with One Health activities.

Challenges and areas that need strengthening

- The wildlife sector is not engaged or involved in addressing zoonotic diseases and should be included in a One Health system.

- There is a need for a One Health platform to facilitate collaboration across sectors and among different stakeholders in key technical areas of zoonotic disease control and response, AMR and food safety.

Recommendations for priority actions

- Establish a One Health Coordination Committee that provides a robust platform for intersectoral engagement on zoonoses, AMR and food safety. This recommendation aligns with those of the WOAH PVS evaluations and gap analysis recently completed in Uzbekistan.

- Develop SOPs to strengthen surveillance of and response to zoonotic diseases (including for wildlife), including but not limited to SOPs for sample collection and transport, use of laboratory diagnostics, exchange of information, and joint response actions.

- Update the list of zoonotic diseases of public health concern to reflect epidemiologically significant zoonoses prevalent in Uzbekistan.

- Establish real-time, interoperable electronic reporting systems that facilitate joint action by the human and animal health sectors and improve cross-sectoral collaboration at provincial level.

- Create emergency funding systems for the human and animal sectors that include compensation/indemnities for any losses caused by timely investigation and control of zoonotic disease outbreaks.

FOOD SAFETY

INTRODUCTION

Food- and waterborne diarrhoeal diseases are leading causes of illness and death, particularly in less developed countries. The rapid globalization of food production and trade has increased the potential likelihood of international incidents involving contaminated food. The identification of the source of an outbreak and its containment is critical for control. Risk management capacity with regard to control throughout the food chain continuum must be developed. If epidemiological analysis identifies food as the source of an event, based on a risk assessment, suitable risk management options that ensure the prevention of human cases (or further cases) need to be put in place.

> ### Target
> *A functional system is in place for surveillance and response capacity of States Parties for foodborne disease and food contamination risks or events with effective communication and collaboration among the sectors responsible for food safety.*

LEVEL OF CAPABILITIES

Ensuring food safety is a multidisciplinary, multisectoral activity that requires various sectors to collaborate and share information on a wide range of organisms and contaminants. It is globally recognized that the "farm-to-fork" chain approach to reducing food safety issues also requires the involvement of the private sector, especially to enable traceability and product recall procedures when needed.

The Government of the Republic of Uzbekistan has developed a draft National Food Security and Healthy Nutrition Strategy 2022-2030. This strategy envisages ensuring food security and a vision for healthy nutrition by using new approaches and following international best practices. The strategy also aims to provide the population with sufficient safe, high-quality, affordable food products, and to promote healthy diets. This strategy also provides for an increase in Uzbekistan's export potential.

The mandated authorities that ensure national food quality and safety, operating under the Cabinet of Ministers of the Republic of Uzbekistan, are the SES, the SVC, the State Plant Quarantine Inspection and the Uzbek Agency for Standardization, Metrology and Certification. State regulations on sanitary, veterinary and phytosanitary rules and norms have been developed, along with technical regulations to ensure quality and safety of food and safe conditions for production, procurement, processing, supply, storage, transportation and sale. Food quality and safety rules and regulations are approved by government agencies, established by law, and are binding for legal entities and individuals operating in the food sector.

Sanitary requirements and hygiene regulations have been developed and fixed in various national laws.

Different authorities are engaged in inspection along the food chain. For food of animal origin, the SVC is responsible for food safety at primary production (farm) level, until processing. Home slaughter is only permitted for home consumption, and all other animals must be slaughtered in designated public or private slaughter facilities. In most private facilities, meat inspection is done by private veterinarians employed by the respective enterprises, under the supervision of public veterinarians. The SVC is also responsible for the safety of imported food products such as raw meat and milk and processed meat products. SVC inspectors are present at border points and at the airport. The Plant Quarantine Agency has established strict regulations on the importation of seeds.

Only a limited number of food processing companies in Uzbekistan have established procedures such as Hazard Analysis Critical Control Point (HACCP), Good Manufacturing Practices (GMP) and ISO certification that would enable the food industry to ensure the safe processing of food products and reduce the risk of foodborne diseases. The rise of new production practices such as organic farming might inspire innovation in food safety approaches and certification systems, underlining the need to update production and certification processes, because current certification focusses only on final products, not processes. Furthermore, the introduction of electronic reporting systems would enable better, more timely sharing of surveillance data and outbreak notifications.

For some years Uzbekistan has been engaged in becoming a member of the World Trade Organization (WTO), a process that requires the country to base its rules and regulations on international standards, guidelines and recommendations. This is the case for food safety and animal and plant health standards, where the Sanitary and Phytosanitary Agreement (SPS) sets out basic rules for the food sector. The agreement includes provisions on control, inspection and approval procedures.

In April 2021, Uzbekistan organized its first meeting of the National Commission of the Codex Alimentarius, and various relevant sectors agreed ways to facilitate food imports and exports and protect the health of consumers from unsafe food. Currently Uzbekistan is in the process of creating a National Food Safety Body and has submitted a new food safety law for approval to ensure that national legislation is aligned with international standards.

The International Food Safety Authorities Network (INFOSAN), a joint programme between the Food and Agricultural Organization of the United Nations (FAO) and the World Health Organization (WHO), provides mechanisms to encourage communication and technical exchange of risk assessments and best practices among INFOSAN members. It also supports governments attempting to strengthen their capacity to fulfil INFOSAN's emergency functions, recognizing that the network is a critical component of WHO's preventive and emergency operations related to food safety. Uzbekistan has not yet appointed an INFOSAN focal point and all food related IHR matters are handled by the IHR NFP.

Indicators and scores

P.5.1 Surveillance systems in place for the detection and monitoring of foodborne diseases and food contamination – Score 3

Strengths and best practices

- An emergency notification or a report can come via approved channels from the field to district, provincial and national levels; routine analysis of surveillance data (including information from admitting health facilities, infectious diseases hospitals or wards); calls to health departments from concerned practitioners; local communities that notice unusual events and inform health authorities; hotline calls from the public; laboratory findings; etc.

- When patients are admitted with a preliminary diagnosis of an acute intestinal infection, samples are taken on the day of admission. Most laboratories in hospitals can take and test human specimens for foodborne diseases.

- The sanitary service has laboratories at oblast and rayon level, with different levels of capabilities.

- In Tashkent, the Central Reference Laboratory has international accreditation and can conduct bacteriological, virological and parasitological examinations as well as determine a range of contaminants and residues, including testing for radiation and mycotoxins.

- The Republican State Centre for Diagnostics of Animal Diseases and Food Safety in Tashkent (functioning under the SVC) conducts tests for foodborne organisms and contaminants in animals and animal products before they enter processing.

Challenges and areas that need strengthening

- Although testing methods have been developed for bacteriological and viral laboratories, there appears to be a lack of guidelines and protocols for laboratory quality management, especially outside the capital.
- While the State Centre is well equipped, sub-laboratories in the regions have limited diagnostic capabilities.

P.5.2 Mechanisms are established and functioning for the response and management of food safety emergencies – Score 2

Strengths and best practices

- Uzbekistan has a governmental commission under the Ministry of Emergency Services that is responsible for all types of emergencies, including food safety events.
- In 2019 the SES developed specific guidelines for outbreak/event investigation and response. These are an important backbone to guide the investigation of and overall response to events including those related to food. The guidelines also cover the composition of RRTs, which vary according to the type of outbreak and the capabilities required.
- Specific triggers for outbreak investigations have been established.
- All patients with food poisoning are admitted to infectious disease hospitals, where a rapid assessment is conducted based on relevant Ministry of Health orders and RRTs undertake further outbreak investigation.

Challenges and areas that need strengthening

- There does not appear to be a dedicated coordinating body in charge of investigating outbreaks of foodborne disease.
- Food safety stakeholders have been designated (the Ministry of Health, the SES, the SVC and the Ministry of Emergency Services) but no coordination mechanisms have been specified.
- Those coordination mechanisms that are in place mainly relate to facilitating communication between central and local levels, but not across sectors.
- So far, no INFOSAN Emergency Contact Point has been designated.

Recommendations for priority actions

- Establish a dedicated national food safety authority or agency to coordinate and streamline information sharing and responses to outbreaks of foodborne diseases across relevant sectors.
- Develop a training plan to increase capacity in epidemiology and food safety risk assessment and communication.
- Appoint an INFOSAN contact person.
- Conduct a review of food safety legislation. Following the review, update legislation based on the results to bring it in line with international regulations and the requirements of the SPS agreement.
- Introduce electronic reporting systems and modern food safety approaches at various levels (including but not limited to HACCP, GMP and ISO standards).

BIOSAFETY AND BIOSECURITY

INTRODUCTION

It is vital to work with pathogens in the laboratory to ensure that the global community possesses a robust set of tools – such as drugs, diagnostics, and vaccines – to counter the ever-evolving threat of infectious diseases.

Research with infectious agents is critical for the development and availability of public health and medical tools that are needed to detect, diagnose, recognize and respond to outbreaks of infectious diseases of both natural and deliberate origin. At the same time, the expansion of infrastructure and resources dedicated to work with infectious agents have raised concerns regarding the need to ensure proper biosafety and biosecurity to protect researchers and the community. Biosecurity is important in order to secure infectious agents against those who would deliberately misuse them to harm people, animals, plants or the environment.

> ## Target
>
> *A whole-of-government multisectoral national biosafety and biosecurity system with dangerous pathogens identified, held, secured and monitored in a minimal number of facilities according to best practices; biological risk management training and educational outreach conducted to promote a shared culture of responsibility, reduce dual-use risks, mitigate biological proliferation and deliberate use threats, and ensure safe transfer of biological agents; and country-specific biosafety and biosecurity legislation, laboratory licensing and pathogen control measures in place as appropriate.*

LEVEL OF CAPABILITIES

During the JEE process Uzbekistan provided a significant amount of information on national and subnational challenges and barriers to implementing biosafety and biosecurity capacities and capabilities. Ensuring that biosafety and biosecurity are resourced, implemented and sustained within Uzbekistan is a high priority task at national level.

The country has several regulatory and operational documents with specific provisions delineating procedures for recording, storing, handling, transferring and transporting pathogens belonging to any of four nationally defined pathogenicity classes; but current biosafety/biosecurity methodologies and regulatory frameworks are not fully compliant with international standards. A significant amount of national legislation, regulation, policy and technical guidance is being drafted or planned to build and support capacity in this area, including by addressing compliance with international standards.

Uzbekistan has also recently established a National Reference Laboratory that oversees the national laboratory system and maintains the national record and inventory of pathogens within facilities that store or process dangerous pathogens and toxins.

Specific training programmes, including for biosafety and biosecurity, are in place at many facilities housing or working with Class I and II dangerous pathogens and toxins. There are defined agencies with various supervisory and operational responsibilities covering a range of biosafety and biosecurity issues.

Biosafety and biosecurity risks have been partially assessed and categorized nationally and in some laboratories. There are, however, limited biosafety and biosecurity control measures in certain laboratories outside national level facilities. Scoping and implementation of biosafety and biosecurity quality assurance and quality management (including validation and audit) across all laboratories is

insufficient: the only laboratories currently participating in audits, for example, are those that diagnose tuberculosis (TB), influenza and/or poliomyelitis.

Efforts are underway to introduce diagnostics that preclude culturing dangerous pathogens, such as polymerase chain reaction (PCR), enzyme immunoassay (EIA) and rapid tests, to help reduce the risks associated with classical methods for microbiological testing for bacterial infections.

While there are frameworks to document, report, investigate and address incidents and accidents at facility and national levels, implementation, adherence and enforcement need strengthening across all laboratories.

Waste management policy and regulations have been introduced at national level, but not yet implemented in all laboratories (particularly at local level). This could be addressed with increased resources, training, and/or enforcement capacity.

A national regulatory framework for transport of class I-II biological materials within Uzbekistan is in place. This could be leveraged and resourced to develop a national regulatory framework for the transport of all pathogens.

Indicators and scores

P.6.1 Whole-of-government biosafety and biosecurity system in place for all sectors (including human, animal and agriculture facilities) – Score 2

Strengths and best practices
- Uzbekistan has established a National Reference Laboratory that oversees the national laboratory system and maintains the record and inventory of pathogens in facilities storing or processing dangerous pathogens and toxins.
- Uzbekistan has a range of national regulatory and operational documents with specific provisions that indicate procedures for recording, storage, handling, transfer and transportation of pathogens belonging to different nationally defined pathogenicity classes (I-IV).
- Uzbekistan completed a WOAH PVS Gap Analysis in 2018 to identify opportunities to improve national veterinary services and animal and veterinary public health.

Challenges and areas that need strengthening
- The agreed list of dangerous pathogens and toxins is an attachment to the Biological Safety Rules when Handling Hazard Class I-II Pathogenic Biological Agents and does not reflect certain key pathogens and toxins that WHO, the IHR, WOAH and the FAO require their members to be able to detect, assess, report on and respond to.
- National biosafety and biosecurity legislation or regulation is currently fragmented – although national legislation "On Biological Safety of the Republic of Uzbekistan" is being finalized and is expected to provide unifying legislation, regulatory authority, and organization.
- There is still significant scope to improve compliance of biosafety and biosecurity methodology and regulatory frameworks in line with international standards, especially at provincial and district levels.
- Biosafety and biosecurity risks have been only partially assessed and categorized nationally.
- Some laboratories have limited biosafety and biosecurity control measures.
- Information management systems and processes are insufficient to manage biosafety and biosecurity information that must be monitored, managed, traced, reported and investigated across all sectors involved in the national laboratory system.
- Systems and processes for scoping and implementing biosafety and biosecurity quality assurance and quality management (including external validation and auditing) are ad hoc and not sector-wide.

- While some key national laboratories have completed all requirements for international certification and/or accreditation, they cannot ship samples internationally for validation testing.

- There are few laboratories with defined and documented biosafety and biosecurity management roles and responsibilities on their staff (e.g. roles for biosafety officers or managers).

- Waste management regulation and policy has been introduced at national level but is not implemented in all laboratories. This could be addressed with increased resources, training, and/ or enforcement.

- There is a lack of certain biosafety equipment and consumables in some laboratories, mostly in provinces and at district level.

- Sustained resourcing and quality control and assurance for personal protective equipment (PPE) is required. Establishing domestic manufacturing capacity could improve national capacity and control issues.

- Uzbekistan has an insufficient number of specialists in certification of biosafety cabinets (BSCs), and no national body responsible for accreditation or certification of BSCs.

- There is a need to explore possibilities for instituting supportive, non-punitive reporting policies to improve the culture around controlling laboratory-acquired infections and other incidents that are currently inconsistently reported.

- There is only limited training for clinicians and local laboratory staff responsible for shipping specimens.

P.6.2 Biosafety and biosecurity training and practices in all relevant sectors (including human, animal and agriculture) – Score 3

Strengths and best practices

- Uzbekistan has a system of academic training in educational institutions that includes curricula for training specialists who maintain or work with dangerous pathogens and toxins at the Tashkent Institute for Postgraduate Medical Education (TIPME).

- Specific training programmes, including for biosafety and biosecurity, are in place at many facilities housing or working with dangerous pathogens and toxins (particularly those in Classes I or II). These can be implemented at laboratories that currently need training.

Challenges and areas that need strengthening

- Uzbekistan has insufficient financial and human capacity to sustain biosafety and biosecurity training.

- While there is a process in place to document successes and areas for improvement at the TIPME, there is no monitoring or assessment of training and/or exercises outside this.

- There is a requirement for certain laboratory staff to complete training at certain times (e.g. orientations and annual refreshers), but no mechanism exists to ensure and monitor staff competence and standards of training at all laboratories.

- Special requirements and rules are in place for national and international transportation of "infectious substances," but orientation, training and validation of transportation providers is necessary to ensure they are comprehensively and consistently applied.

Recommendations for priority actions

- Revise the national "dangerous pathogens and toxins" list with multisectoral partners to ensure it reflects key pathogens that WHO, WOAH, and FAO standards require Member States to detect, assess, report, and respond to. Formalize the final list through an appropriate multisectoral agreement.

- Enforce national legislation "On Biological Safety of the Republic of Uzbekistan" to modernize and codify biosafety and biosecurity authorities, ensure sustained funding, and establish national implementation requirements. The updated legislation should cover national biorisk assessments and management, enforcement, training standards, quality management standards, and internal and external audit/validation procedures.

- In coordination with Uzbekistan's National Health System Strengthening Initiative, develop and implement a national biosafety and biosecurity information management system that enables multisectoral monitoring and maintenance of inventory records for all priority pathogens and toxins, and manages facility licensing records and facility incident/containment reporting and investigation.

- Perform a multisectoral biorisk assessment that includes the human, animal and agriculture sectors. Review practices and procedures for detection by local level clinicians or laboratories up to national reference laboratory confirmatory testing and maintenance of national inventories. Determine the full scope of requirements for biosecurity, biosafety, and biocontainment of infectious agents and toxins.

- Expand current national achievements in accreditation and certification that allow national laboratories to engage, partner, and share with relevant international bodies, for example in sample sharing and certification and maintenance of BSL3 laboratories. Pursue ISO 35001 Biorisk management for laboratories and related facilities, starting with national laboratories then moving to subsequent tiers of the system including the private sector.

IMMUNIZATION

INTRODUCTION

Immunizations are estimated to prevent more than two million deaths a year globally. Immunization is one of the most successful global health interventions and cost-effective ways to save lives and prevent disease. Measles immunization is emphasized because it is widely recognized as a proxy indicator for overall immunization against vaccine preventable diseases. Countries will also identify and target immunization to populations at risk of other epidemic-prone vaccine preventable diseases of national importance (e.g. cholera, Japanese encephalitis, meningococcal disease, typhoid and yellow fever). Diseases that are transferable from cattle to humans, such as anthrax and rabies, are also included.

> ### Target
>
> *A national vaccine delivery system – with nationwide reach, effective distributions, access for marginalized populations, adequate cold chain and ongoing quality control – that is able to respond to new disease threats.*

LEVEL OF CAPABILITIES

Uzbekistan carries out vaccination against infectious diseases in accordance with established laws, subordinate legal acts, ordinances and sanitary rules and regulations. Routine vaccination is mandatory.

The country has two vaccination schedules. The first is for routine immunization of children under 18 and covers 13 infectious diseases. The second is a preventive schedule based on epidemic indications that was developed by the National Immunization Technical Advisory Group (NITAG) according to WHO's Global Vaccine Action Plan (GVAP), and approved by the Chief State Sanitary Doctor of the Republic of Uzbekistan (SanPin 0239-15).

Uzbekistan has a multiyear immunization plan for 2020-2025 that considers zoonotic diseases of national concern like rabies or anthrax. Protection against measles and rubella in the country's 12-month-old population is at least 95%, and Uzbekistan has been certified free from wild poliomyelitis virus since 2002.

Uzbekistan's plans for 2019-2025 focus on health systems development, including the goal of the National Immunization Programme (NIP) to ensure high levels of coverage. Since 2001 the state budget for vaccination has continuously increased, and in 2021 it covered 95% of routine vaccines. For emergency situations, partner organizations – including WHO, the United States Centers for Disease Control and Prevention (US CDC), the United Nations Children's Fund (UNICEF) and the Gavi, the Vaccines Alliance – have also provided technical and financial support (for example, for a mass campaign of measles vaccination from 1-20 October 2020).

During the COVID-19 pandemic, routine vaccination has not been interrupted and previous coverage levels have been maintained. In April 2021, vaccination against COVID-19 was introduced in Uzbekistan, on which the country continues to work in close cooperation with WHO, UNICEF, Gavi and COVAX. For communications around COVID vaccination, Uzbekistan published and distributed 100 000 flyers in Uzbek, Russian and Karakalpak.

During this period, injectable polio vaccine (IPV) has also been introduced into the routine schedule, replacing oral polio vaccine (OPV).

Vaccine coverage is tracked through VLMS software (Electronic Vaccine Logistics Management System), but this does not reach rural areas. Paper questionnaires from WHO and/or UNICEF on coverage and status of the cold chain are used in those areas and sent weekly to district and regional level. The information arrives monthly at the SES to be introduced into VLMS at that point.

The central vaccine store is in Tashkent. Fourteen provincial and 206 district (city) vaccine stores have also been constructed, together containing 457 refrigerators, 148 power generators, over 500 vaccine carriers and 121 cold boxes. Uzbekistan has 3138 immunization points across the country and 862 immunization teams. To support these teams, Gavi has provided the country with 17 refrigerated vehicles, 206 minivans, 16 Lada cars and 16 Renault Duster crossover vehicles procured under Gavi's Health Systems Strengthening (HSS) Programme.

Indicators and scores

P.7.1 Vaccine coverage (measles) as part of national programme – Score 4
NB The vaccination system in Uzbekistan has great capacity to provide high vaccine coverage to the population, even to carry out mass vaccination campaigns. The score for this indicator was very close to the highest possible score of 5. To achieve a 5 it is necessary only to improve certain discrete aspects of the system, such as bringing the level of resources found centrally to all levels of the health system.

Strengths and best practices
- Uzbekistan provides all routine vaccines free of charge for all citizens under 18, and for the entire population in certain special situations (such as a measles or polio outbreak).
- High vaccination coverage is sustained at national level. Coverage of measles, mumps and rubella (MMR) vaccination for children under 12 months is >95% at all administrative levels.
- As part of their efforts to control the spread of measles and rubella and achieve the Millennium Development Goals, in 2021 NITAG, working with WHO, developed an action plan and applied to Gavi for measles and rubella vaccines for a mass immunization campaign.
- Uzbekistan has developed "safe immunization practice" guidelines and 36 related training curricula for general practitioners.
- Primary health care professionals have received training in safe immunization (at the time of the JEE, the numbers trained stood at 4356 doctors and 11 539 nurses engaged in administering vaccinations).
- In 2021 a strategic programme was developed for emergency measures in case of polio importation, in line with WHO recommendations.

Challenges and areas that need strengthening
- Uzbekistan does not currently monitor or evaluate adverse events following immunization (AEFI), which is of particular importance given the massive vaccination campaigns carried out in the last three years.
- There are no programmes or incentives to encourage or support routine vaccination, which would ensure continuous high levels of coverage.
- The VLMS system should be implemented at all health levels, so that the regions can move on from the current paper-based system.

P.7.2 National vaccine access and delivery – Score 4

NB In the last two years, the storage and distribution of vaccines in Uzbekistan has been transformed and modernized, with the support of external financing. As with the previous indicator, this indicator is very close to a maximum score of 5. To achieve that maximum score, access and delivery systems must be coordinated with districts and primary health care providers.

Strengths and best practices

- Between 2019 and 2021 Uzbekistan reconstructed and/or renovated its cold chain.

- This renovation has covered over 90% of all subnational administrative areas (i.e. districts and provinces).

- Vaccine storage capacity is sufficient for all planned new vaccine introductions.

Challenges and areas that need strengthening

- There is a need for a communication campaign, based on formative research, to improve understanding of the barriers preventing GPs from administering vaccines. This would support engagement with GP leaders and influencers to improve vaccine administration and coverage.

- There is a lack of computerized monitoring for vaccine store management. The Effective Vaccine Store Management (EVSM) tool should be used.

Recommendations for priority actions

- Implement the electronic immunization database at all levels of the health system.

- Create and operationalize a system of monitoring and reporting AEFI at all health facilities.

- Develop an outreach and communication campaign that encourages primary health care physicians proactively to offer science-based immunization advice and vaccinations to their patients.

- Extend computerized monitoring of vaccine store management (EVSM) to districts and ensure full coverage and interconnection with the national system. This should cover both new and current equipment.

DETECT

NATIONAL LABORATORY SYSTEM

INTRODUCTION

Public health laboratories provide essential services including disease and outbreak detection, emergency response, environmental monitoring and disease surveillance. State and local public health laboratories can serve as a focal point for a national system, through their core functions for human, veterinary and food safety including disease prevention, control and surveillance; integrated data management; reference and specialized testing; laboratory oversight; emergency response; public health research; training and education; and partnerships and communication.

> **Target**
>
> *Surveillance with a national laboratory system, including all relevant sectors, particularly human and animal health, and effective modern point-of-care and laboratory-based diagnostics.*

LEVEL OF CAPABILITIES

Uzbekistan established its National Reference Laboratory in 2021 to oversee a complex system of national diagnostic laboratories and the tiered national laboratory system. Uzbekistan has reference laboratories in selected vertical programmes (AMR, HIV, tuberculosis and hepatitis) and national guidelines for clinical health professionals that recommend specific microbiological tests for certain syndromes (such as severe pneumonia, severe diarrhoea, or suspected meningitis). These are being revised to reflect modern requirements. Uzbekistan also has multiple mobile laboratories for extra-hazardous diseases (i.e. class I or II hazards) with full point-of-care testing capabilities. These could be leveraged to establish point-of-care testing and sample collection for other diseases across the country.

The national system has been catalogued (the total number of laboratories is around 4800) but the catalogue is not thoroughly maintained and updated. A national database containing information on each laboratory is needed to enhance tracking of accurate data on the nature, capabilities and certification and accreditation status of each laboratory.

The National Reference Laboratory is also charged with developing and overseeing the national laboratory quality management programme. The State Centre for Expert Assessment and Standardization of Medicines, Medical Devices and Equipment is the national regulatory authority responsible for qualification and registration of in vitro diagnostic devices and the quality control of domestic and foreign medical products. Implementation of the nationwide quality control programme is, however, limited. It is important, given Uzbekistan's significant investment in modern laboratory equipment, that preventive maintenance is performed regularly to ensure high quality diagnostic results. Establishing and supporting maintenance contracts for key equipment in national and subnational laboratories is critical to sustaining national laboratory capacity and capability, particularly for national priority pathogens.

Uzbekistan's requirement for trained laboratory professionals (e.g. biomedical and laboratory technicians) is growing. It should be considered a strategic priority to ensure that enough trained personnel are available to maintain the growing inventory of modern equipment in the national laboratory system.

Uzbekistan's diagnostics also require access to consumables, particularly reagents. While it was mentioned to the JEE team that the country has sufficient funding to meet the needs imposed by the COVID-19 pandemic, it was also stated that the establishment of local manufacturing capacity for some necessary laboratory supplies is being considered. This would significantly improve the resilience of the laboratory system.

Command management systems at certain national laboratories make it possible to react quickly to changes and ensure standardized testing. This should be implemented across the entire national laboratory system. Emergency reporting and response systems are in place at some national laboratories that house extra-hazardous stockpiles.

Uzbekistan has a regulatory framework for transporting biological materials within the country, and all laboratory staff in laboratories responsible for class I-II hazards undergo regular training in the transport of biological materials. However, ensuring training in and auditing of the transport system across the subnational tiers, including for diseases that are not extra-hazardous, would substantially improve transport capability and increase the probability (and the quality) of specimens being received at sentinel and confirmatory laboratories.

Indicators and scores

D.1.1 Laboratory testing for detection of priority diseases – Score 3

Strengths and best practices

- A broad range of testing is available to the public, with standard diagnostic protocols approved by the relevant sectors and prescribed schemes for laboratory tests.
- Sensitivity testing data from AMR pilot laboratories are validated by the AMR Centre at the Republican Specialized Scientific and Practical Medical Centre for Epidemiology, Microbiology, Infectious and Parasitic Diseases using a well-established validation mechanism.
- Diagnostic algorithms for extra-hazardous pathogens have been developed through joint work with international partners and are close to international standards.
- Around 200 laboratories can conduct antimicrobial sensitivity testing, although only 5-6 laboratories currently conduct this testing in compliance with the requirements of the European Committee on Antimicrobial Susceptibility Testing (EUCAST).
- Classical and molecular tests (buffered plate agglutination test, EIA, PCR, etc.) are used in national (and some provincial) laboratories according to set SOPs. Working with international partners, laboratory specialists in certain national laboratories are trained on advanced testing methods.
- Information about laboratory diagnostics is available to providers and consumers, although local health experts use national laboratory services in a limited way.

Challenges and areas that need strengthening

- While Uzbekistan has a list of 10 priority diseases, it does not reflect certain key pathogens and toxins of importance.
- The SES has a list of 10 priority core tests, but several diagnostic tests are performed across multiple sectors and it was unclear whether or not there is an official national "multisectoral" designation and prioritization of 10 core tests that the country should be able to perform.
- There are no comprehensive national lists of all priority diseases and/or all relevant multisectoral partners. Development and publication of these resources could significantly improve coordination of the national laboratory system both nationally and internationally.
- Uzbekistan needs a plan and timeline to build capacity for all core tests not yet performed in the country.
- Agreements with close international partners to provide any specialized testing not currently available in the country could enhance national detection capabilities.

- The agencies responsible for standardization and control of equipment and consumables require significantly more training and equipment to carry out their responsibilities.
- Analysis of the spatial distribution of tick vectors across Uzbekistan is required.
- Establishing maintenance contracts for key equipment in national and subnational laboratories is critical to sustaining national laboratory capacity and capability.
- Work is needed to ensure sufficient personnel are available to maintain the significant growth in Uzbekistan's laboratory capacities.
- Testing on antimicrobial susceptibility (AST) should be performed regularly and testing facilities should seek compliance with international standards.
- Only 5-6 laboratories conduct sensitivity testing in compliance with EUCAST requirements (though a national plan that should remedy this is pending approval).

D.1.2 Specimen referral and transport system – Score 3

Strengths and best practices

- Specimen transport systems are outlined for COVID-19 and extra-hazardous infections (i.e. cholera, plague, CCHF, influenza and polio) in orders and guidelines that can serve as models for establishing and strengthening the overall national referral and transportation systems.
- Uzbekistan participates in regional international laboratory networks for influenza, polio, measles and rubella and tuberculosis, via information sharing and standards compliance.
- Uzbekistan has multiple mobile laboratory capability for extra-hazardous diseases with full point-of-care testing capability.

Challenges and areas that need strengthening

- Other than for extra-hazardous infections laboratories at regional and national level, most laboratories do not have standardized SOPs for specimen collection, packaging and transport.
- The national referral network for laboratories is limited.
- Documentation for the tests necessary to detect and confirm aetiologies is incomplete.
- The specimen referral and transport system has significant opportunities to improve with sufficient funding, training, and programme management.

D.1.3 Effective national diagnostic network – Score 3

Strengths and best practices

- Uzbekistan established its National Reference Laboratory in 2021 and tasked it with overseeing national diagnostic laboratories and the tiered national laboratory system.
- A legal and regulatory framework is in place to improve the availability of point-of-care diagnostics at clinical sites across the country.
- Uzbekistan has an in-country Field Epidemiology Training Programme (FETP) and an agreement with Kazakhstan on participation in their national advanced FETP.

Challenges and areas that need strengthening

- There is no national database to track the capabilities, certification and accreditation of the country's laboratories.
- While a tier-based system currently operates for laboratory testing, there is no official strategy for tier-specific diagnostics that includes point-of-care and farm-based diagnostics at regional and district levels.
- Significant capability was built for the national response to COVID-19, but many local diagnostic centres still require modern equipment and devices, with national accreditation, in line with established protocols.

- Given the nature and capacity of some national testing facilities (e.g. the virology laboratory and the National Influenza Centre), Uzbekistan should consider establishing WHO-recognized centres.
- The FETP programme in Uzbekistan is not well supported, has very few graduates, and is not as well integrated across the tiered national laboratory system as it could be.
- Uzbekistan does not have an in-country Field Epidemiology and Laboratory Training Programme (FELTP). Agreements for cross training with partner nations should be considered.

D.1.4 Laboratory quality system – Score 3

Strengths and best practices
- The National Reference Laboratory will oversee the national laboratory quality management programme in the future (although it does not yet do this).
- Uzbekistan's AMR Centre and the laboratories involved in AMR epidemiological surveillance have participated in external quality assessment (EQA) since 2016. In 2022, the SES Services bacteriological lab was included in the EQA programme. Every round of participation in EQA is confirmed by a certificate from the United Kingdom National External Quality Assessment Service (UK NEQAS)
- In 2019, the Complex of Testing Laboratories of the Republican State Centre for Diagnosis of Animal Diseases and Food Safety was accredited with the expanded scope of accreditation.
- The Uzbekistan Republican Scientific and Practical Medical Centre for Pthisiology and Pulmonology participates in an external quality assurance programme with the German Supranational Reference Laboratory, implementing national quality controls for TB diagnostics.
- Uzbekistan has established a National Accreditation Centre under the Uzstandart Agency, which will regulate procedures for accreditation and certification of laboratories.
- The Accreditation Division of the Ministry of Health is a national body for laboratory licensing, but it is unclear to what degree its requirements align with international standards, or how it covers multisectoral licensing.
- The State Centre for Expert Assessment and Standardization of Medicines, Medical Devices and Equipment serves as the national regulatory authority responsible for qualification or registration of in vitro devices, but implementation of the quality control programme is limited.

Challenges and areas that need strengthening
- The broader national and subnational laboratory system requires quality management programmes to strengthen and assure capability – similar to the EQA and assessment programmes used by key national laboratory programmes (e.g. for TB, Polio, AMR, and influenza).
- Some key national laboratories have completed all requirements for international certification and accreditation, but they still need to obtain the ability to ship samples internationally for validation testing.
- All national laboratories should seek relevant ISO compliance; accredited national laboratories should support subsequent tiers with achieving accreditation.
- Ensuring multisectoral coordination on ISO compliance, accreditation, and quality control standards will enhance national laboratory resilience.
- Validation of the methods and testing of local/regional laboratories should utilize partner sample testing within the national system and the facilities of other tier partners.
- Aligning the training of laboratory specialists with international requirements would significantly enhance the national laboratory system, particularly for biomedical and laboratory technicians.

DETECT

Recommendations for priority actions

- Reassess and revise the national priority list of pathogens with multisectoral partners to ensure it reflects key pathogens and toxins that WHO, WOAH, and FAO standards require Member States to detect, assess, report, and respond to. Approve and publish the final comprehensive list through an appropriate multisectoral agreement.

- In coordination with the Uzbekistan 2030 Health Systems initiative and efforts to strengthen the national health information system, develop and implement a national multisectoral laboratory information management system to enhance reporting, monitoring and information sharing across the entire national laboratory system.

- Establish and fund a national laboratory quality management programme under the authority of the National Reference Laboratory. The National Reference Laboratory should oversee national laboratory engagement, partnerships, and sharing with international accreditation and certification bodies (e.g. sample sharing). This programme should include alignment with international standards, accreditations, and guidance (e.g. ISO standards and those of the Clinical and Laboratory Standards Institute, the WHO Biosafety Manual and the Laboratory Quality Management System).

- Establish a national multisectoral referral transportation programme that is trained, capable, and sufficiently well-funded to ensure that samples for advanced diagnostics can be shipped to the national laboratory system from at least 80% of districts.

- Assess risks to the national laboratory supply chain. Based on the results of the risk assessment, develop a plan to ensure supply chain risk management is in place to assure that high quality laboratory supplies are available in time of need.

SURVEILLANCE

INTRODUCTION

The purpose of real-time surveillance is to advance the safety, security and resilience of the nation by leading an integrated surveillance effort that facilitates early warning and situational awareness of all IHR hazard-related events.

> ### Target
>
> *(1) Strengthened foundational indicator- and event-based surveillance that are able to detect events of significance for public health and health security; (2) improved communication and collaboration across sectors and between sub-national (local and intermediate), national and international levels of authority regarding surveillance of events of public health significance; and (3) improved national and intermediate level regional capacity to analyse and link data from and between, strengthened, early-warning surveillance, including interoperable, interconnected electronic tools. This would include epidemiologic, clinical, laboratory, environmental testing, product safety and quality and bioinformatics data; and advancement in fulfilling the core capacity requirements for surveillance in accordance with the IHR and WOAH guidelines.*

LEVEL OF CAPABILITIES

Uzbekistan has an indicator-based routine surveillance system with well-developed capacity at national, intermediate and district levels.

Infectious diseases are treated only in state hospitals. Reporting at facility level – i.e. in infectious disease clinics – is paper-based. At district (or "rayon") level, across a total of 206 rayons, local sanitary units of the SES enter data into an electronic system, the Information System for Monitoring of Infectious Diseases (IS EMID). All administrative levels within the SES service have some access to the system; district and regional levels only access data for the corresponding level, but the national level can access reported case-based data in real-time.

A total of 102 diseases and symptoms are reported. Among the captured diseases, hepatitis A, acute watery diarrhoea (AWD), acute respiratory infection (ARI), influenza and pneumonia are considered priority diseases. Case definitions, classified by suspected, probable and confirmed cases, are in place.

The system is supplemented by sentinel surveillance for influenza-like illness (ILI), ARI and influenza in five sites in the capital city, with weekly reporting. The data is entered in a separate system, "InfluUZB19," and is well linked with laboratory networks. At these sentinel sites, data are analysed weekly by region, age, severity and laboratory test results. For routine surveillance, data are analysed in the IS EMID system upon request. Health workers have access rights to the data. 60% of health workers at national, intermediate and district levels are trained in data analysis.

Clusters of disease or clusters of predefined symptoms or suspected cases of any infectious disease are reported through the indicator-based system using a specific form, Form 058 "Emergency Notification". Facilities such as schools or kindergartens report unusual events to the SES. Media screening and data exchange for events that occur across between sectors are done ad hoc.

Regular training activities take place at all levels. Staff shortages and a high turnover after the reform of the SES pose challenges around human resources and continuity of services.

National RRTs are in place to support cross-sectoral outbreak investigations at all levels.

Information technology tools are available at all levels to permit the management of surveillance data. The IS EMID is in place, within which basic descriptive data analysis functions (e.g. aggregation, stratification by categories, etc.) can be carried out and from which data can be exported into different electronic formats for use in other applications, such as Excel.

The veterinary sector has no routine surveillance system for infectious disease, and IS EMID is not connected with other sectors, nor is it interoperable with other systems. Despite this, on-request data sharing between sectors in case of an event works well.

Health professionals at points of entry report directly to their respective SES units.

Data on infectious diseases are reported monthly for all 102 diseases in the system. Data analysis for hepatitis A, AWD, ARI, influenza and pneumonia is done weekly or ad hoc for any notifiable disease in case of an event or a request by an epidemiologist. At national level, COVID-19 is reported daily, and data is submitted to the European Surveillance System (TESSy) at the European Centre for Disease Prevention and Control (ECDC).

Completeness and timeliness of reporting are scored at over 80% in Uzbekistan's 300 health facilities, a requirement backed by law. The reported case-based data is cross-checked with hospital admission data at national level.

An evaluation of the surveillance system was conducted in 2020, but the necessary improvements it identified are still pending implementation. Improvements from lessons learned during the COVID-19 pandemic are yet to be incorporated (e.g. creating a more integrated surveillance system). Nevertheless, the Ministry of Health has started publishing the "National Influenza Surveillance Bulletin" on their website: https://ssv.uz/ru/menu/informatsionnye-bjulleteni-

Weekly reporting is done for priority diseases. Sentinel surveillance results of other diseases are reported monthly in an aggregated manner. This information is shared with relevant stakeholders.

Indicators and scores

D.2.1 Surveillance systems – Score 3

Strengths and best practices
- A list of priority diseases is available.
- Case-based data for infectious diseases are captured and reported via IS EMID.
- Case-based surveillance data in IS EMID allows for inclusion of laboratory findings.
- A sentinel syndromic surveillance system for ARI and ILI is in place in Tashkent.
- Indicator-based data from over 300 health facilities are entered into the surveillance system at district level.
- Information is shared with other sectors upon request.

Challenges and areas that need strengthening
- The event-based surveillance system is fragmented, under-resourced and needs to be fully developed to support indicator-based surveillance for early warning mechanisms.
- Cross-border surveillance should be strengthened by memoranda of understanding (MOUs) with neighbouring countries.
- Data validation mechanisms require strengthening,
- The sentinel surveillance system for ILI, ARI and influenza covers only the city of Tashkent.

D.2.2 Use of electronic tools – Score 3

Strengths and best practices

- Information technology tools that permit management of the surveillance database are available at all levels of the SES.
- ARI and ILI data are entered into a dedicated sentinel surveillance system, "InfluUZB19."
- Special training courses on data entry are conducted for health staff.
- Mechanisms for monthly information sharing and feedback loops are in place, linking local, intermediate and national levels of the system.

Challenges and areas that need strengthening

- There are no integrated reporting systems that link the animal and human sectors.
- Increased internet accessibility is needed to enable timely data sharing.
- More appropriate equipment and hardware (such as computers) will be needed as the surveillance system expands.

D.2.3 Analysis of surveillance data – Score 4

Strengths and best practices

- Sentinel surveillance data are analysed and published weekly on the Ministry of Health webpage.
- Capacity for risk assessment is available at national and intermediate level.
- Case based surveillance data is captured (in IS EMID) and allows for inclusion of laboratory findings.

Challenges and areas that need strengthening

- Routine indicator-based surveillance data are not analysed weekly to support outbreak detection and prompt responses.
- Capacity for epidemiological data analysis is limited at intermediate and district levels.
- Even though the necessary capacity is available, risk assessments are not routine. This should be prioritized in order to map regional risk profiles and guide planning.
- Case reports and laboratory data are not integrated or linked and are entered manually at district level.
- Regular mechanisms are needed for data quality assessment and evaluation and revision of the surveillance system.
- Uzbekistan should consider publishing a regular national epidemiological bulletin.

Recommendations for priority actions

- Assess the potential added value of event-based surveillance (EBS) and, based on the results of the assessment, conduct the necessary training and implement the necessary EBS at all levels.

- Implement the recommendations of the recent evaluation of the national surveillance system.

- Assess ICT resources at all levels of the national surveillance system and allocate resources to provide or update equipment and capacity as necessary.

- Participate in international training activities to increase local epidemiological capacity and offer exchange visits with international partner institutions for technical experts.

- Develop and implement a statutory electronic surveillance system for all levels of the veterinary, wildlife and environment sectors. Ensure interoperability with the systems used in other sectors.

REPORTING

INTRODUCTION

Health threats at the human–animal–ecosystem interface have increased over the past decades, as pathogens continue to evolve and adapt to new hosts and environments, imposing a burden on human and animal health systems. Collaborative multidisciplinary reporting on the health of humans, animals and ecosystems reduces the risk of diseases at the interfaces between them. The national IHR focal points, the WOAH delegate, and WAHIS national focal point should have access to a toolkit of best practices, model procedures, reporting templates, and training materials to facilitate rapid (within 24 hours) notification of events that may constitute a public health emergency of international concern (PHEIC) to WHO and listed diseases to WOAH, and will be able to rapidly (within 24/48 hours) respond to communications from these organizations.

> ## Target
>
> *Timely and accurate disease reporting according to WHO requirements and consistent reporting to/information of FAO and WOAH.*

LEVEL OF CAPABILITIES

Uzbekistan's reporting to WHO is legislated through the Resolution of the Cabinet of Ministers *On measures to implement the International Health Regulations in the Republic of Uzbekistan No. 220*, dated 31 July 2015. This instrument provides a legal framework for reporting events of potential public health concern and stipulates the timeframes in which they must be reported regionally and nationally.

The Ministry of Health operates as Uzbekistan's IHR NFP and covers all relevant incidents of a biological, chemical or radioactive nature. There is an authorized contact person for the WOAH within the SVC. Both delegates have access to WHO and WOAH training material on their notification and reporting duties. Notifications of outbreaks of animal disease are submitted via the WOAH website following established WOAH procedures.

At the time of the JEE, Uzbekistan was in the process of establishing reporting procedures for food-related incidents.

The IHR NFP exchanges information with other countries in accordance with the provisions of Articles 44 and 45 of the IHR (2005). Additionally, a 1993 agreement among the State Chief Sanitary Doctors of the countries of the Commonwealth of Independent States (CIS) requires CIS countries to report emergencies to the countries concerned.

Uzbekistan needs more regular exercises (whether simulation or tabletop exercises) at all levels, including exercises at points of entry and at local and regional levels. These exercises should focus on enhancing cross-sectoral collaboration, risk assessment and reporting.

DETECT

Indicators and scores

D.3.1 System for efficient reporting to FAO, WOAH and WHO – Score 3

Strengths and best practices

- Legislation covering reporting of communicable diseases at all levels and to WHO was adopted in 2015.
- Uzbekistan has a functional IHR NFP and a WOAH Focal Point in place and accessible 24 hours a day.

Challenges and areas that need strengthening

- Education and training on assessing events according to Annex 2 of the IHR (2005) should be continued at regional and national levels.
- There is a need for SOPs on risk assessment and reporting beyond what is or will be written in current or future legislation. These SOPs should be based on event-based surveillance and notifications.
- More simulation exercises and after action reviews are required that focus on event-based surveillance and reporting and which engage the human and animal sectors at all levels.

D.3.2 Reporting network and protocols in country – Score 3

Strengths and best practices

- A mechanism has been established to ensure the exchange of information between the IHR NFP and the WOAH Contact Point.
- Ad hoc collaboration with the animal sector is achieved in risk assessment and reporting at regional and national levels.
- There is an agreement among the State Chief Sanitary Doctors of CIS countries that facilitates cross-border reporting of emergencies between the countries concerned.

Challenges and areas that need strengthening

- There is a need for structured cross-sectoral collaboration in reporting and the development of relevant SOPs.
- There is a need for SOPs for risk assessment and reporting of events at all levels and in all sectors.
- There is a need to enhance collaboration between the IHR NFP, the WOAH Delegate and INFOSAN through regular meetings to exchange information.
- As noted in the section on Food Safety, a formal designation is needed to establish the INFOSAN focal point.

Recommendations for priority actions

- Develop and implement all SOPs, guidelines and training programmes required to ensure the reporting of all-hazards health emergencies, including chemical incidents, radiation emergencies, and other man-made and natural disasters.
- Review and expand the scope of reporting by the IHR NFP and ensure that all potential public health emergencies of international concern (PHEIC) are notified to WHO.
- Conduct regular trainings on the use of IHR Annex 2. Organize and implement regular, multisectoral tabletop and simulation exercises designed to enable the notification of PHEIC within 24 hours.

HUMAN RESOURCES

INTRODUCTION

Human resources are important in order to develop a sustainable public health system over time by developing and maintaining a highly qualified public health workforce with appropriate technical training, scientific skills and subject-matter expertise. Human resources include nurses and midwives, physicians, public health and environmental specialists, social scientists, communication, occupational health, laboratory scientists/technicians, biostatisticians, IT specialists and biomedical technicians and a corresponding workforce in the animal sector: veterinarians, animal health professionals, para-veterinarians, epidemiologists, IT specialists etc.

The recommended density of doctors, nurses and midwives per 1,000 populations for operational routine services is 4.45 plus 30% surge capacity. The optimal target for surveillance is one trained (field) epidemiologist (or equivalent) per 200,000 populations who can systematically cooperate to meet relevant IHR and PVS core competencies. One trained epidemiologist is needed per rapid response team.

> ## Target
> *States Parties with skilled and competent health personnel for sustainable and functional public health surveillance and response at all levels of the health system and the effective implementation of the IHR (2005).*

LEVEL OF CAPABILITIES

Uzbekistan has a national workforce strategy, the *Health System Development Strategy in the Republic of Uzbekistan for 2019-2025*[1]. Among other things, this strategy addresses training of the health workforce, including retraining and advanced training of medical personnel.

Continuous professional education and development include specialized training courses on outbreak preparedness and response for epidemiologists, medical practitioners, and public health laboratory staff.

Since 2002, Uzbekistan has participated in an advanced two-year field epidemiology training programme (FETP) offered by the University of Kazakhstan for countries in the region.

A basic three-month frontline FETP programme was established at the Tashkent Medical Academy in 2021. There are already 20 graduates and 60 further professionals undergoing training at the time of the JEE, but the programme is still to be fully incorporated into Uzbekistan's national qualification and accreditation system. This step is needed to ensure its sustainability.

Access to epidemiology training is included to some extent in the training curricula for all medical and veterinary students in Uzbekistan, with medical doctors given the possibility of specializing through internships in preventive medicine, hygiene and/or epidemiology.

Uzbekistan has an inadequate overall number of epidemiologists, clinicians, biostatisticians, information systems specialists, veterinarians, social scientists, laboratory technicians/specialists and other public health personnel at all levels of the health system – local, intermediate and national.

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1   https://www.lex.uz/docs/4096199#4099858

Indicators and scores

D.4.1 An up-to-date multi-sectoral workforce strategy is in place – Score 3

Strengths and best practices

- Qualifications for epidemiology, medicine and veterinary and public health are standardized.
- Training of clinical and preventive specialists is carried out at regional and national levels.
- Uzbekistan has a good national network of higher education institutions.

Challenges and areas that need strengthening

- There is a need to expand epidemiology training for human and animal health professionals to meet national staffing needs.
- Educational standards for training specialists need to be updated and improved.

D.4.2 Human resources are available to effectively implement IHR – Score 3

Strengths and best practices

- Uzbekistan has a good network of higher education institutions that provide training for the health workforce, including clinicians, preventive health staff and laboratory technicians.
- Uzbekistan participates in a regional advanced FETP though the University of Kazakhstan.
- Uzbekistan has established a basic domestic FETP at the Tashkent Medical Academy.
- Continuous professional education and development is in place for both human and veterinary medicine.

Challenges and areas that need strengthening

- A continuous chain of professional education for public health specialists is required.
- The capacity of the current FETP programme is limited, and only partially meets the country's need for trained epidemiologists.
- There is a need for overall scaling up of workforce development and retention efforts to address staff shortfalls across most disciplines.

D.4.3. In-service trainings are available – Score 3

Strengths and best practices

- Continuous professional education programmes are available in the human and animal sectors.
- Continuous professional education and development trainings are conducted regularly by various sectors, including human and animal health.

Challenges and areas that need strengthening

- There is a lack of joint training involving veterinary and human health specialists.

D.4.4 FETP or other applied epidemiology training programme in place – Score 4

Strengths and best practices

- Uzbekistan participates in a regional advanced FETP though the University of Kazakhstan.
- Uzbekistan has established a basic domestic FETP at the Tashkent Medical Academy.
- Participants in these programmes gain theoretical knowledge and improve their skills by conducting research and investigating outbreaks of infectious diseases.

Challenges and areas that need strengthening

- The capacity of the current FETP programme is limited, and only partially meets the country's need for trained epidemiologists.

- There is a need to localize the advanced FETP programme as well, and to expand both levels of training to meet national needs.

- The relevance of tools and trainings provided by the FETP needs to be assessed to ensure that it fits current needs and capacities.

Recommendations for priority actions

- Scale up the continuous education programme (CPE) and ensure that relevant hazard specific programmes, professional bodies, and institutions of higher learning perform regular updates of the curricula in collaboration with relevant partners.

- Scale up the FETP programme to increase uptake and thereby enhance epidemiological capacity at intermediate and local levels.

- Introduce an FETP-V programme designed to enhance workforce capacity for addressing zoonotic infectious hazards within the One Health framework.

RESPOND

EMERGENCY PREPAREDNESS

INTRODUCTION

Emergency preparedness is defined as "the knowledge and capacities and organizational systems developed by governments, response and recovery organizations, communities and individuals to effectively anticipate, respond to, and recover from the impacts of likely, imminent, emerging or current emergencies." A state of preparedness is the combination of planning, allocation of resources, training, exercising, and organizing to build, sustain, and improve operational capabilities at national, intermediate and local or primary response level based on strategic risk assessments. A strategic risk assessment identifies, analyses and evaluates the range of risks in a country and enables risks to be assigned a level of priority. Strategic risk assessments include analyses of potential hazards, exposures and vulnerabilities, identification and mapping of available resources, and analyses of capacities (routine and surge) at the national, intermediate and local or primary levels to manage the risks of outbreaks and other emergencies. Emergency preparedness applies to any hazard that may cause an emergency, including relevant biological, chemical, radiological and nuclear hazards, natural hazards, other technological hazards and societal hazards.

> ### Target
>
> *(1) Existence of national strategic multi-hazard emergency risk assessments, risk profiles, and resource mapping (2) Existence of multi-hazard emergency response plans, (3) Evidence, from after action and other reviews, of effective and efficient multisectoral emergency response operations for outbreaks and other public health emergencies.*

LEVEL OF CAPABILITIES

Uzbekistan has strong regulations and systems for protecting its national security, so most documents relating to emergency preparedness and response are classified as secret. The JEE team was therefore not given access to any of the plans or operational documents referred to in this section. Instead, our national counterparts from Uzbekistan presented non-confidential summaries of the content of these documents and responded to questions.

Uzbekistan conducts an annual national strategic multi-hazard emergency risk assessment coordinated by Ministry of Emergency Services. This includes cross-border information on relevant hazards. Each participating sector, including the health sector, assesses the hazards relevant to their field. Starting at regional level, information is compiled and shared with the next administrative level up until a full national strategic assessment is compiled at Ministry of Emergency Services level. Hazards are prioritized based on the data submitted, and the results of the assessment are shared with relevant stakeholders.

Based on this assessment, Uzbekistan was able to anticipate 45% of relevant events that occurred in 2019 and 60% of those that occurred in 2020. Communication with stakeholders on imminent threats or emergencies and/or emergency responses happens daily in emergencies, or according to need.

Mapping of resources and inventories for emergency response is completed regularly, with the latest update at the time of the JEE having taken place in December 2020. Plans for critical stockpiling are in place at the Ministry of Emergency Services and a standard inventory list for emergencies, including PHEIC-type events, has been developed by the Ministry of Health.

Mapping of resources is incomplete for some areas (such as levels of expertise) and has been reported as inaccurate for others (such as the material and technical infrastructure of health facilities).

The Republican Anti-Epidemic Commission for Emergency Preparedness and Response, a national level standing commission chaired by the Prime Minister, is the strategic body that oversees emergency response. Strategic decisions of the Committee are recorded in a meeting protocol, a document that then serves as the basis for action by different ministries in charge of implementation.

A national multisectoral multihazard plan was developed in 2005 and updated in 2010 and 2020. The 2020 update is pending completion and approval by the Prime Minister. The Ministry of Health national health emergency response plan is integrated in the national multisectoral multihazard plan and addresses high priority, hazard-specific health sector events. Based on the national multisectoral multihazard plan, separate plans for relevant events and sectors are developed at regional level.

Emergency preparedness activities are implemented and practiced across sectors for cross-border events and mass gatherings through tabletop and practical exercises. An after-action review has been done for the COVID-19 response.

Different emergency response funds are in place across various sectors and administrative levels (including but not limited to republican and subnational contingency funds, epidemic funds and epizootic funds). Preparedness activities, especially exercises, are covered under the Ministry of Emergency Services budget. Plans for exercises are submitted a year in advance.

Indicators and scores

R.1.1 Strategic emergency risk assessments conducted and emergency resources identified and mapped – Score 3

Strengths and best practices
- National cross-sectoral strategic multihazard emergency risk assessments are done annually, with regional contributions.
- The national strategic multihazard risk assessment involves input and participation of all ministries and agencies involved in the state emergency prevention and response system.
- The Ministry of Health has developed and approved inventory lists and lists of material reserves for PHEIC responses.
- The Ministry of Emergency Services has developed and approved a standard inventory list of material reserves for emergency response.
- Stocks of vaccines and materials are established at regional level.

Challenges and areas that need strengthening
- The strategic emergency risk assessment was able to anticipate only 45% of relevant events that occurred in 2019.
- The strategic emergency risk assessment is mainly carried out at national level with input from regional level, but is not done at regional and district levels.
- Mapping of resources is incomplete for some areas and inaccurate for others.

R.1.2 National multisectoral multi-hazard emergency preparedness measures, including emergency response plans, are developed, implemented and tested – Score 3

Strengths and best practices

- A national multisectoral multihazard plan is in place and is regularly reviewed and updated.
- Hazard-specific plans and SOPs are in place.
- Based on the national multisectoral multihazard plan, the Ministry of Health has developed the Plan of the medical service of the state emergency prevention and response system for medical service delivery for the population of the Republic of Uzbekistan in natural and man-made emergencies.
- Emergency preparedness measures are part of the national multisectoral multihazard plan, and cross-sectoral training for high priority events is conducted regularly at national level.
- The Fire Service is integrated into the Ministry of Emergency Services system.
- National level simulation exercises are conducted regularly.
- An after-action review has been completed for COVID-19.

Challenges and areas that need strengthening

- The emergency preparedness and response system in Uzbekistan depends on national arrangements and structures, and is executed and coordinated mainly at national level.
- Specific multisectoral multihazard plans do not exist at district or local levels.
- Uzbekistan lacks the management capacity to coordinate the emergency responses of local subsystems of the state emergency prevention and response system.
- Uzbekistan lacks communication capacity for interaction between relevant stakeholders in emergency responses.
- Simulation exercises (tabletop and functional exercises) do not include all relevant sectors and are not done at subnational level. The same applies to after-action reviews to train and assess coordination and communication between the national and subnational levels.

Recommendations for priority actions

- Finalize and approve the updated national multisectoral multi-hazard plan and revise SOPs accordingly.
- Implement a strategic health emergency risk assessment that includes hazard prioritization, considering exposures, capacities and vulnerabilities in all relevant sectors at subnational levels.
- Conduct a mapping exercise that catalogues all national and subnational resources and expertise for emergency response.
- Conduct a review of inventory and logistical protocols and implement any resulting recommendations.
- Develop and implement training on all-hazards emergency preparedness and response at subnational level, emphasizing cross-sectoral communication and emergency management.

EMERGENCY RESPONSE OPERATIONS

INTRODUCTION

A public health emergency operations centre is a central location for coordinating operational information and resources for strategic management of public health emergencies and emergency exercises. Emergency operations centres provide communication and information tools and services, and a management system during a response to an emergency or emergency exercise. They also provide other essential functions to support decision-making and implementation, coordination and collaboration.

> ## Target
>
> *Countries will have a coordination mechanism, incident management systems, exercise management programmes and public health emergency operation centre (EOC) functioning according to minimum common standards; maintaining trained, functioning, multisectoral rapid response teams, and trained EOC staff capable of activating a coordinated emergency response within 120 minutes of the identification of an emergency.*

LEVEL OF CAPABILITIES

Uzbekistan has established commissions for coordinating emergency responses at national and provincial levels. The national commission is composed of policymakers, partners and senior technical officers and includes both the Ministry of Emergency Services and the Ministry of Health. The IHR NFP also sits on this commission, but the veterinary and wildlife sectors are not included (though they do have a separate commission).

Use of the Incident Management System (IMS) is established at the Ministry of Health and at provincial levels. The coordination mechanism for emergency response is activated by the Deputy Minister of Emergency Situations once s/he is briefed that an emergency is occurring. The roles of the respective IMS actors and the emergency response concept of operations (CONOPS) are not clearly documented.

The Ministry of Health has a physical public health emergency operations centre (PHEOC), fitted out with state-of-the-art equipment, that coordinates emergencies. The existence of the PHEOC is underpinned by laws detailing its functions and responsibilities. The PHEOC has six trained permanent staff and can be activated by the Director of Health Services or the PHEOC manager, under specified conditions, within two hours. A toll-free national hotline is available for immediate reporting. When up and running the PHEOC operates 24/7, sharing daily information with relevant sectors and agencies.

Indicators and scores

R.2.1 Emergency Response Coordination – Score 3

Strengths and best practices

- Uzbekistan has an interagency coordinating mechanism through which policymakers and senior technical officers oversee emergency response.
- Uzbekistan has a PHEOC with state-of-the-art equipment, and a toll-free national hotline is available for immediate reporting. The PHEOC has permanent staff and can be activated within two hours.
- A roster of trained surge capacity personnel is available at national level in case the IMS needs to expand.

- There are established commissions for coordination at national and provincial levels.
- Use of the IMS is established at the Ministry of Health and at provincial levels.
- Strategic risk assessment and resource mapping are conducted, though not in all administrative areas.
- There is a standard list of operational and countermeasures materials pre-positioned and reserved for emergency use.
- Uzbekistan has performed several tabletop and functional exercises involving the health sector.
- The country has a multihazard plan, but this is a classified document and was not available to the JEE team.

Challenges and areas that need strengthening
- The veterinary, wildlife and environment sectors should be integrated into the coordinating commission for efficient sharing of information and planning of joint actions.
- Special IMS training should be provided at all levels to ensure that the respective roles of IMS stakeholders and the nature and implementation of the CONOPS are fully understood by all relevant people and institutions.
- Strategic risk assessments and resource mapping should be conducted in all administrative areas.
- The incident commander or manager of the incident management team should be assigned according to their expertise.

R.2.2 Emergency Operations Centre Capacities, Procedures and Plans – Score 3

Strengths and best practices
- A physical PHEOC is established by law at the Ministry of Health to coordinate emergencies, with six permanent staff. The PHEOC is operational 24/7 and can be activated within two hours. The centre is well linked to laboratory systems.
- Protocols are in place for internal and external communication.
- The PHEOC has a database of relevant subject matter experts.
- Technical staff are regularly trained in public health emergency management.
- A business continuity plan is in place and an exercise has been conducted to test it.
- The PHEOC has led one after action review.
- The PHEOC is currently coordinating the national COVID-19 response and provides daily reports.
- The PHEOC is well equipped and has a toll-free hotline which is well disseminated down to subnational level.
- The centre has a development plan that includes recruitment of another 10 staff.

Challenges and areas that need strengthening
- The PHEOC should implement the development plan, recruit 10 more staff and increase its physical space.
- The centre has no event-based surveillance unit.
- New staff should be made familiar with the principles of public health emergency management (PHEM).
- The IHR NFP is also the PHEOC manager. These two functions should be separated.
- Although a toll-free line has been set up there is no rumour log. A rumour log should be set up so rumours can be followed up.
- Operational costs and expenditure are financed by partners. PHEOC operational costs should be mainstreamed into the Ministry of Health budget.
- The PHEOC handbook and SOPs should be completed to include the standard elements of best practice.

- Uzbekistan should consider setting up redundancy of equipment and/or systems as alternatives in case of failure of PHEOC systems.
- The PHEOC should have access to the multihazard plan to facilitate coordination of preparedness and prediction of risks. This will help the PHEOC develop a seasonal risk calendar, enhance situational awareness and improve operational readiness.

R.2.3 Emergency Exercise Management Programme – Score 4

Strengths and best practices
- Uzbekistan has demonstrated adequate capabilities in conducting simulation exercises.
- Uzbekistan has rich experience of conducting exercises. These are done on a regular basis.
- The current PHEOC team has been trained in planning and managing exercises and has conducted four exercises (in the Andijan, Namangan, Navoi and Samarkand regions respectively) in the last two years.
- The PHEOC team participated in a recent special tabletop exercise for the Government Commission.
- The PHEOC has strong links with the Ministry of Emergency Services, where a lot of exercises are planned and executed.
- The team has participated one in cross-border exercise.

Challenges and areas that need strengthening
- The PHEOC should develop a comprehensive exercise programme with implementation plans that cover all levels.

Recommendations for priority actions

- Integrate the veterinary, wildlife and environment sectors into the Coordinating Commission.
- Conduct strategic risk assessments and resource mapping in all administrative areas.
- Implement the existing PHEOC development plan in full.

RESPOND

LINKING PUBLIC HEALTH AND SECURITY AUTHORITIES

INTRODUCTION

Public health emergencies pose special challenges for law enforcement, whether the threat is manmade or naturally occurring. In a public health emergency, law enforcement will need to quickly coordinate its response with public health and medical officials.

> ### Target
>
> *Country conducts a rapid, multisectoral response for any event of suspected or confirmed deliberate origin, including the capacity to link public health and law enforcement, and to provide timely international assistance.*

LEVEL OF CAPABILITIES

Within the Republic of Uzbekistan, certain types of documentation, including plans and reports, are subject to security classifications that prohibit sharing them with those not cleared by the Uzbek security services.

This in no way undermines the strength of the collaborative work done by public health services and security authorities.

Roles and responsibilities for joint work are clearly articulated in two resolutions from the Cabinet of Ministers, numbers 515 and 869, and a joint resolution from the Ministry of Interior, the Ministry of Emergency Services, the Ministry of Health and the Ministry of Defence.

Identification of potentially deliberate biological, chemical and radiological events is the responsibility of the State Security Service. Responses to potential biological, chemical and radiological events are based on plans for joint activities of the security forces and the services of the State Emergency Prevention and Response System. In line with these plans, special multisectoral tactical exercises involving personnel and resources outlined in the plan are conducted at provincial level every year.

Regular exchange of reports between public health authorities (i.e. the Ministry of Health) and security authorities (the Ministry of Emergency Services) is ensured in line with the provisions of Resolution of the Cabinet of Ministers No. 1027. The Ministry of Health submits monthly reports to the Ministry of Emergency Services on potential medical and biological emergencies, as well as relevant forecasts. The Ministry of Emergency Services consolidates forecasts from all services and sends them to all relevant ministries and agencies for use in organizing measures to prevent potential threats.

A comprehensive training and exercising programme is run each year, creating a multisectoral cadre of well trained staff who are able to collate, analyse and link highly sensitive information and action in a timely fashion.

The relevant government entities are connected with INTERPOL through the INTERPOL National Central Bureau in Uzbekistan (under the Ministry of Internal Affairs) and the Ministry of Foreign Affairs.

Indicators and scores

R.3.1 Public health and security authorities (e.g. law enforcement, border control, customs) linked during a suspect or confirmed biological, chemical or radiological event – Score 4

Strengths and best practices

- Regulatory documents have been developed at national level.

- Public health and security authorities are linked in an appropriate fashion to ensure high quality, timely communication.

- Joint trainings for public health and security authorities at provincial level are conducted every year on topics related to information sharing and joint investigations/responses. This is in accordance with the Plan of Main Activities of the State Emergency Prevention and Response System.

- Regular meetings between the health and security authorities provide an excellent benchmark to which many countries would aspire. This cross sectoral collaboration facilitates greater understanding of the required resources and helps identify areas for further training and exercising.

Challenges and areas that need strengthening

- Uzbekistan would benefit from improved SOPs and agreements for joint/shared risk assessments during events of public health and security significance.

- Forecasting by all services could be improved, to ensure greater reliability and to help organize measures to prevent potential threats.

Recommendations for priority actions

- Develop risk assessment tools to assist in risk prioritization (forecasting) and related SOPs that support multisectoral engagement in risk assessment.

- Conduct a review of forecasting at national, regional and district levels and implement the recommendations to facilitate the placement of countermeasures, personnel and resources.

RESPOND

MEDICAL COUNTERMEASURES AND PERSONNEL DEPLOYMENT

INTRODUCTION

Medical countermeasures are vital to national security and protect nations from potentially catastrophic infectious disease threats. Investments in medical countermeasures create opportunities to improve overall public health. In addition, it is important to have trained personnel who can be deployed in case of a public health emergency for response. Regional (international) collaboration will assist countries in overcoming the legal, logistical and regulatory challenges to deployment of public health and medical personnel from one country to another. case management procedures should be available to all staff, and implemented across the system during health emergencies due to IHR related hazards.

> ### Target
>
> *National framework for transferring (sending and receiving) medical countermeasures, and public health and medical personnel from international partners during public health emergencies and procedures for case management of events due to IHR related hazards.*

LEVEL OF CAPABILITIES

Uzbekistan has a cross-governmental approach to managing emergency situations that is based on resolutions from the Cabinet of Ministers as described in Chapter 1 of this report. The Cabinet of Ministers, under the leadership of the Prime Minister, issues resolutions for each situation in which the importation of countermeasures is required.

Notwithstanding this, Uzbekistan authorities, and in particular the Ministry of Emergency Services, have lead roles in providing logistical support and coordinating the actions required to ensure all parties make necessary countermeasures available in a timely manner. This work is facilitated by the existence of stockpiles of medical countermeasures for national use during public health emergencies, held at strategically located warehouses across the country. There is a division of responsibility for various countermeasures, with the Ministry of Health managing medical equipment and supplies and the SES managing stockpiles of vaccines and sera. Pharmaceutical stockpiles are managed by a network of pharmacies that has agreements with medical unions for the release of drugs during emergencies.

The authorities are acutely aware of the likely occurrence of natural disasters and consequently have stockpiles of equipment for managing major emergencies. These are located at the Republican Scientific Emergency Care Centre and its branches and sub-branches.

At the time of the JEE the Republic of Uzbekistan had been able to procure and introduce seven SARS-CoV-2 vaccines during the COVID-19 pandemic, under a Resolution of the President describing public procurement; and demonstrated capacity to send medical countermeasures by deploying a field hospital, with staff, to support neighbouring countries' pandemic responses. Uzbekistan plays a strong leadership role in supporting neighbouring countries, thereby helping enhance subregional disaster health management capacities.

National rapid support teams have been established under the Plague Control Service and are responsible for managing suspected infections with high-consequence pathogens, as well as other IHR-related emergencies.

Joint multisectoral training and exercising is a major strength in Uzbekistan, but the programme does not

currently arrange specific training and exercising for managing countermeasures or medical personnel entering or exiting the country. This could easily be added into the existing programme to ensure a comprehensively trained and experienced system.

Uzbekistan has several close neighbours that are part of the CIS. This grouping is only partly used as a means of strengthening capacities and capabilities. Further investment of time and resources in formalizing relations with other countries around managing and responding to IHR-related emergencies could bring significant benefits.

Indicators and scores

R.4.1 System in place for activating and coordinating medical countermeasures during a public health emergency – Score 3
NB Uzbekistan would exceed this score if it had conducted formal, specific tabletop exercises in this area.

Strengths and best practices
- Uzbekistan has a stockpile of medical countermeasures for national use during public health emergencies.
- Uzbekistan has many legal instruments that provide instruction on what should be done during emergency events, and by whom. These procedures are understood by a strong team of professionals who have been working in the system for some time and who understand the necessary interactions with other multisectoral partners.
- This has been demonstrated by the execution of measures to bring COVID vaccines into Uzbekistan.
- Domestic production of antibiotics has been organized, and plans are in place for local production of vaccines, laboratory supplies and equipment, etc.

Challenges and areas that need strengthening
- Existing decrees, resolutions and orders describing actions, roles and responsibilities need to be pulled into a clear plan.
- There is no single clear plan in place that identifies procedures and decision-making related to sending and receiving medical countermeasures during a public health emergency. Instead, resolutions of the Cabinet of Ministers are issued for each procedure.
- Specific tabletop exercises that test plans related to medical countermeasures should be integrated into the existing training and exercises programme.

R.4.2 System in place for activating and coordinating health personnel during a public health emergency – Score 3
NB Uzbekistan would exceed this score if it had conducted formal, specific tabletop exercises in this area.

Strengths and best practices
- Specific resolutions and orders are prepared on a case-by-case basis to deploy Uzbek medical staff to neighbouring countries.
- Clear mechanisms are in place to ensure deployed staff are appropriately prepared and supported.
- A field hospital has been deployed with staff to support neighbouring countries' responses to the COVID-19 pandemic.
- Uzbekistan is moving to strengthen its emergency medical teams (EMTs) as an adjunct to the RRTs that are available for national deployment.

- Existing decrees, resolutions and orders describing actions, roles and responsibilities need to be pulled into a clear plan.
- The Uzbekistan emergency medical team and its support mechanisms need to be strengthened and formalized.

R.4.3 Case management procedures implemented for IHR relevant hazards – Score 3

Strengths and best practices

- Rapid response teams (RRTs) have been set up under the Plague Control Service.
- Staff have been trained in case management of IHR-relevant infectious disease emergencies and are available for deployment.
- All ambulance personnel providing medical care in emergency situations are trained at the Republican Scientific Emergency Care Centre and the Department of Disaster Medicine Advanced Training Centre for Health Professionals.
- Management and transport of infectious patients are provided in accordance with Ministry of Health orders.

Challenges and areas that need strengthening

- Standard operating procedures for case management are being updated and include radiological and chemical emergencies.
- Appropriate staff and resources need to be put in place to match the risk assessments for all areas of Uzbekistan.

Recommendations for priority actions

- Bring plans that are described in Decrees, Resolutions and Orders into clear focus by preparing short operational plans and SOPs that clarify roles and responsibilities, so they be exercised and monitored.

- Develop robust SOPs that permit timely receipt of medical countermeasures in cases of acute events that inflict mass causalities (e.g. earthquakes, cyclones, chemical emergencies, etc.).

- Create medium and long-term plans to develop an Uzbekistan Emergency Medical Team under WHO mentorship, and gain WHO accreditation for the team as an internationally deployable asset.

- Review case management protocols and expand them to include robust protocols for managing chemical and radiological cases. Integrate these into training across a wide range of medical and health-aligned professions.

RISK COMMUNICATION

INTRODUCTION

Risk communications should be a multilevel and multifaceted process which aims at helping stakeholders define risks, identify hazards, assess vulnerabilities and promote community resilience, thereby promoting the capacity to cope with an unfolding public health emergency. An essential part of risk communication is the dissemination of information to the public about health risks and events, such as disease outbreaks. For any communication about risk caused by a specific event to be effective, the social, religious, cultural, political and economic aspects associated with the event should be taken into account, including the voice of the affected population.

> ### Target
>
> *State Parties use multilevel and multifaceted risk communication capacity. Real-time exchange of information, advice and opinions between experts and officials or people who face a threat or hazard (health or economic or social wellbeing) to their survival, so that informed decisions can be made to mitigate the effects of the threat or hazard and protective and preventive action can be taken. This includes a mix of communication and engagement strategies, such as media and social media communications, mass awareness campaigns, health promotion, social mobilization, stakeholder engagement and community engagement.*

LEVEL OF CAPABILITIES

During the pandemic, and especially during the year before COVID-19 vaccines were available, public health and social measures (PHSM) were the main interventions used to protect populations around the world, including in Uzbekistan. Risk communication and community engagement (RCCE) played an essential role in building and maintaining trust in health authorities and convincing populations to cooperate with PHSM. This further reinforces the importance of having strong RCCE capacity integrated into all aspects of the national health emergency response system.

Uzbekistan takes a whole-of-government, whole-of-society approach to risk communication, and has the capacity to conduct timely, transparent, actionable risk communication via multiple channels and platforms. This was clearly demonstrated during the national response to the COVID-19 pandemic. Mass media (i.e. TV, radio and newspapers), of which around 50% are government-owned, have collaborated particularly closely with the authorities to disseminate COVID-19 information and advice.

During the pandemic there has also been close collaboration with multiple other partners – ranging from religious leaders and social media influencers to international partner organizations such as UNICEF and WHO – and engagement with local communities via the Ministry of Makhalla (communities). Notable good practices have included sending senior health officials and doctors to appear on morning chat shows on Uzbek TV and radio to answer questions from the public; use of the social media platform Telegram to conduct rapid polls for social listening and engagement; two press conferences per day televised live on the main national TV and radio channels (Uzbekistan 24) during the acute phases of the pandemic; daily updates via Telegram throughout; and strong coordination of communication within the government press service and with partners.

A national risk communication plan was agreed in 2020, but this is limited in scope, has no resources attached to it, and needs updating to incorporate lessons learned during the pandemic. Some key aspects of risk communication could be reinforced and done more systematically, including social listening, monitoring for rumours and misinformation, strategic use of social media, and use of social

science research to guide and evaluate interventions. The quality of communication and engagement at regional, district and community levels is variable, as few of the staff at these levels have been trained in risk communication.

Reviewing and updating the national all-hazards risk communication plan and ensuring the skills and resources needed to implement it are in place could significantly upgrade the strategic value and impact of Uzbekistan's risk communication capacity.

Indicators and scores

R.5.1 Risk communication systems for unusual/unexpected events and emergencies – Score 2

NB While the national risk communication plan agreed in 2020 between the Ministry of Health, the Ministry of Emergency Services and the National Television and Radio Company of Uzbekistan is sufficient to fulfil the basic criterion of having a plan, the JEE team strongly recommended that this plan be reviewed and updated soon.

Strengths and best practices

- The national risk communication plan agreed in 2020 includes the state-owned National Television and Radio Company of Uzbekistan as a partner, as well as the Ministry of Emergency Services. The inclusion of the media partner guarantees the appropriate authorities all the airtime they need on the most watched or listened to media channels in the country.
- The COVID-19 pandemic has been a major and sustained test of Uzbekistan's risk communication capacity, and several important lessons have been identified by staff working in the function.

Challenges and areas that need strengthening

- The national risk communication plan lacks detail on several key risk communication functions (e.g. social listening, monitoring for rumours and misinformation and use of social science research). This is a key challenge, as is the fact that resources are not explicitly assigned to implement the plan.
- Reviewing and updating the 2020 national plan, with technical support from WHO, would provide an opportunity to address the challenges identified above and implement the lessons identified during the COVID-19 pandemic.

R.5.2 Internal and partner coordination for emergency risk communication – Score 4

Strengths and best practices

- Uzbekistan takes a whole-of-government, whole-of-society approach to risk communication. Traditional mass media collaborate closely with the Ministry of Health and other parts of government.
- During the response to COVID-19 – which has tested the system – the Ministry of Health has collaborated and coordinated systematically with international partners (especially WHO and UNICEF), religious leaders, social influencers, civil society organisations and the private sector.

Challenges and areas that need strengthening

- There is scope for further clarity on risk communication roles and responsibilities, and for fostering further joint work and sharing of resources between partners.

R.5.3 Public communication for emergencies – Score 4

Strengths and best practices

- Uzbekistan has the capacity to conduct timely, transparent, actionable risk communication via multiple channels and platforms. This has been clearly demonstrated during its response to the COVID-19 pandemic, during which public communication has been continuous and proactive.

- The Ministry of Health offices in the regions and districts of Uzbekistan communicate with regional and local TV, radio and newspapers, and can do this using local languages. They also disseminate information via their own websites and social media (Telegram) channels.

- The Ministry of Health of the autonomous Republic of Karakalpakstan in north-western Uzbekistan disseminates information in the Karakalpak language.

- Notable good practices in Uzbekistan during the pandemic have included:

  » sending senior health officials and doctors to appear on popular TV/radio chat shows to answer questions from the public;

  » use of Telegram to conduct rapid polls as a means of social listening and engagement;

  » two live press conferences per day on national TV and radio during the acute phase of the pandemic; and

  » posting daily updates on Telegram throughout the pandemic.

Challenges and areas that need strengthening

- The risk communication function is performed by the Ministry of Health press service in coordination with the press services of other Ministries. These press services (and in particular the Ministry of Health one) also communicate for the Ministry on non-emergency topics – i.e. they do corporate communication as well as risk communication. This makes it challenging for team leaders to take a strategic, programmatic approach to risk communication.

- Because of these challenges, it has not yet been possible to establish the plans, systems and resources needed to fully develop certain core risk communication functions. These functions include social listening, monitoring for rumours and misinformation, strategic use of social media and use of social science research to guide and evaluate interventions.

- The quality of risk communication at regional and district level can be variable, as health staff at these levels have had little or no risk communication training.

- By revising and updating the national risk communication plan agreed in 2020 and putting in place the systems, skills and resources to develop risk communication function further, Uzbekistan could rapidly move from being "good" to being "excellent" in this area.

R.5.4 Communication engagement with affected communities – Score 2

Strengths and best practices

- The Ministry of Health has worked with the Ministry of Makhalla to mobilize chairs and volunteers in local community and village structures to engage with their communities on COVID-19 contact tracing.

- The Ministry of Health has engaged with national and local religious leaders, civil society organisations, social media influencers, editors, journalists and the private sector to communicate about COVID-19 and prevention measures.

Challenges and areas that need strengthening

- The current national risk communication plan does not contain fully developed strategies, methods and resources for engaging with affected communities. In particular, the potential of local engagement at community and/or makhalla level is not fully explored.

- Ministry of Health staff at national, regional and local levels could benefit from training on community engagement.

R.5.5 Addressing perceptions, risky behaviours and misinformation – Score 3

Strengths and best practices

- Throughout the pandemic the Ministry of Health has used its Telegram channel to conduct regular short polls to gather data on public perceptions, concerns, behaviours and information needs relating to COVID-19.

- The Ministry of Health press department and the SES regularly monitor mass media and social media channels (especially Telegram, WhatsApp, Facebook and Instagram) to detect rumours, misinformation and signals of new developments in the COVID-19 pandemic.

Challenges and areas that need strengthening

- The Ministry of Health network of offices at region and district level, and partners such as the Ministry of Makhalla and the Uzbekistan Red Crescent, could assist the Ministry of Health with offline social listening, but this capacity has not yet been developed.

- Activities for online social listening/monitoring for rumours and misinformation are fragmented between the Ministry of Health press service and the SES. There is scope to consolidate and streamline this activity.

Recommendations for priority actions

- Strengthen the national all-hazards risk communication plan to broaden its scope, update it in line with international best practices, and embed risk communication as a strategic function within the health emergency response system.

- Review the human and financial resources allocated to risk communication to ensure they align with the objectives of the updated plan. Make full use of possibilities for collaboration and sharing resources both within government (e.g. with the Ministry of Emergency Situations) and with partners.

- Make monitoring and analysis of rumours and signals from social media and offline social listening a joint responsibility shared between the Emergency Operations Centre and the Risk Communication team.

- Make an official request from the Ministry of Health to WHO to provide technical assistance to update and strengthen the national all-hazards risk communication plan, and implement a programme of tailored capacity building that upgrades risk communication functions in line with the priorities identified in the plan. In the longer term, the Ministry should ensure risk communication is a priority area for technical assistance in its bi-annual WHO Country Cooperation Strategy.

IHR-RELATED HAZARDS AND POINTS OF ENTRY

POINTS OF ENTRY

INTRODUCTION

All core capacities and potential hazards apply to "points of entry" and thus enable the effective application of health measures to prevent international spread of diseases. States Parties are required to maintain core capacities at designated international airports and ports (and where justified for public health reasons, a State Party may designate ground crossings), which will implement specific public health measures required to manage a variety of public health risks.

> **Target**
>
> *States Parties designate and maintain core capacities at international airports and ports (and where justified for public health reasons, a State Party may designate ground crossings) that implement specific public health measures required to manage a variety of public health risks.*

LEVEL OF CAPABILITIES

Uzbekistan is a double-landlocked country bordered by Kazakhstan to the west and north, Tajikistan and Kyrgyzstan to the east, and Afghanistan and Turkmenistan to the south.

It contains 73 points of entry (POE), including 11 international airports, 43 highway border crossings, 18 railway border crossings and one river port, the Termez International River Port on the Uzbek-Afghan border. Nine of these points of entry have been designated as POE under the requirements of the IHR: Tashkent International Airport; Keles railway station; Termez river port; and ground borders at Sariasiya, Termez, Yallama, Oybek, Alat, and Dustlik.

Uzbekistan's airports are operated by the state-run Uzbekistan Airports Joint Stock Company (JSC), which acts as a single executive body operating all airports in the country. Tashkent International Airport remains Uzbekistan's main international gateway.

There are 53 Sanitary Control Points (SCPs) across the 73 points of entry, from which public health staff transmit monthly activity reports to the SES at the Uzbek Ministry of Health. The Competent authority in charge of the points of entry as defined in the IHR is represented by on-site SES personnel.

Transfer of ill travellers from airports to health care facilities is performed by Uzbekistan Airports ambulances, which are available 24/7 at all 11 airports. A collaboration mechanism is in place that enables proper medical assessment and care of ill travellers at district and provincial level on request from on-duty medical doctors at airports.

According to the provisions of Article 21 of the IHR (2005), Uzbekistan should consider entering into bilateral or multilateral agreements or arrangements with neighbouring countries on prevention and control of international disease transmission at land borders. Uzbekistan should also consider joint designation of adjacent ground crossings for the capacities listed in IHR (2005) Annex 1B.

Uzbekistan should also consider upgrading the skills of the SCP unit personnel at the Termez River Port so that the port is authorized to issue ship sanitation certificates.

Indicators and scores

PoE.1 Routine capacities established at points of entry – Score 3

Strengths and best practices
- Uzbekistan has an adequate network of SCP units spread across all Uzbekistan's air, river, and land POE.
- Well-staffed medical services are available at POE, enabling rapid assessment and care of ill travellers.
- Uzbekistan Airports JSC, the airport operator, provides onsite ambulances for medical transfers.
- Uzbekistan has designated nine points of entry at which the core capacities have been implemented.

Challenges and areas that need strengthening
- Uzbekistan should consider increasing the involvement of SCP staff in activities that ensure a safe environment for travellers using POE facilities, including food hygiene inspections, potable water safety planning, and solid and liquid waste management.
- The establishment of a sustainable vector surveillance plan and a vector control plan would allow Uzbekistan to address the potential importation of alien invader vectors and their associated pathogens at POE.
- Sanitary Control Point units should be given more appropriate premises, to improve their ability to carry out their functions.

PoE.2 Effective public health response at points of entry – Score 3

Strengths and best practices
- A public health emergency contingency plan has been disseminated to all key POE partners and integrated into the national emergency response plan.
- Capacity is in place for entry screening and isolation of inbound travellers.
- A coordinated mechanism to provide travellers with health care is in place across districts, provinces and SCPs.

Challenges and areas that need strengthening
- Developing SOPs with relevant stakeholders would clearly outline and demonstrate the practical actions needed to integrate the public health emergency contingency plan into the aerodrome's emergency plans and into the national emergency response plan.
- Uzbekistan should consider organizing recurrent joint simulation exercises involving civil aviation and public health authorities, to test the chain of command and control of the public health emergency plan and the level of coordination with the relevant stakeholders.
- Uzbekistan would benefit from developing further capacity for early detection, notification and response in case of public health events at ground crossings, and from establishing mutual agreements with neighbouring countries.
- Capacity could be strengthened through training for SCP personnel in event-based and syndromic surveillance.

- Uzbekistan should implement recommended public health measures at POE in line with the requirements of the IHR (2005) and the relevant WHO technical guidance.

Recommendations for priority actions

- Establish a sustainable vector surveillance and control plan addressing the importation of vectors and their associated pathogens at Uzbek points of entry.

- In partnership with relevant stakeholders, develop SOPs that clearly integrate the points of entry contingency plan into the National Emergency Response Plan. Implement these SOPs.

- Establish mutual agreements with neighbouring countries that develop joint capacities for early detection and notification of, and response to, public health events at ground crossings.

CHEMICAL EVENTS

INTRODUCTION

Timely detection and effective response of potential chemical risks and/or events requires collaboration with other sectors responsible for chemical safety, industries, transportation and safe disposal. This would entail that State Parties need to have surveillance and response capacity to manage chemical risk or events and effective communication and collaboration among the sectors responsible for chemical safety.

> ### Target
>
> *States Parties with surveillance and response capacity for chemical risks or events. This requires effective communication and collaboration among the sectors responsible for chemical safety, industries, transportation and safe disposal, animal health and the environment.*

LEVEL OF CAPABILITIES

Uzbekistan's national strategy for sustainable development to 2030 places responsibility for sound chemicals management with three sectors: health, the environment, and agriculture.

Uzbekistan is a party to two multilateral environmental agreements, the Rotterdam and Stockholm conventions, and has accepted the Strategic Approach to Sound Chemicals Management. According to national legislation, the Ministry of Health and the SES assess produced and imported chemicals and monitor chemicals in the environment, food, and some consumer products. Laboratory capacities for this function are being developed. The national reference laboratory is accredited by an international accreditation body.

Preparedness and response protocols for chemical events are coordinated between the Ministry of Emergency Services and the Ministry of Health for both industrial and transportation accidents. First respondents identify the nature of an event, analyse the chemicals involved and conduct onsite decontamination. The Centre for Emergency Medicine and its regional branches provide first aid to victims and transportation to identified medical facilities. Initial assessments are carried out by the first responders, and more detailed examination of the extent and type of contamination and the causative event agent is done by the SES.

Development, regular updating and implementation of internal and external preparedness and response plans is the legal responsibility of industries and other bodies using and owning chemicals. The Ministry of Emergency Services is responsible for developing a national plan for emergency management, including management of chemical emergencies. Regional and sectoral plans are developed by local governments and relevant ministries.

Some issues and gaps currently limit Uzbekistan's ability to protect human health during chemical events. There is no "umbrella" regulation of hazardous chemical products. The surveillance system for intoxication and poisonings is outdated and valid only for food and occupational poisonings. Some SOPs essential to an effective first response are missing (e.g. for triage, decontamination procedures for specific chemicals, different types of poisoning treatment protocols, etc.). Current laboratory capacities do not permit the evaluation of exposure to most industrial chemicals. There is no online system for sharing information on hazardous enterprises, the chemicals produced in-country, the most hazardous chemicals and/or those produced and stored in large volumes. In Uzbekistan, the system for classification and labelling of chemicals and their mixtures is outdated and not harmonized with the Globally Harmonized System (GHS), the single worldwide system for classifying and communicating

the hazardous properties of industrial and consumer chemicals. Trainings are conducted in a centre established for this purpose, but no simulation exercises had been organized in the three years preceding the JEE. The health system's institutional structures for chemical emergences should be strengthened: for example, no poison control centre has been established in Uzbekistan.

Indicators and scores

CE.1 Mechanisms established and functioning for detecting[2] and responding to chemical events or emergencies – Score 3

Strengths and best practices

- A system for chemical emergency preparedness and response has been established by order of the Cabinet of Ministers (State System of Warning and Action in Emergency Situations of the Republic of Uzbekistan). An intersectoral coordination mechanism is established under the Cabinet of Ministers and is initiated in case of emergencies.

- Roles and responsibilities have been identified for different sectors involved in managing chemical events.

- The SES has laboratory capacities that enable the identification of hazardous chemicals.

- Capacities are in place to monitor environmental contamination, assess human exposure, and evaluate hazardous sites.

Challenges and areas that need strengthening

- The databases needed for managing chemicals and chemical emergencies are not available.

- Uzbekistan has insufficient technical and methodological laboratory capacity to allow rapid identification of chemicals in emergencies.

- There is no modelling capacity for chemical risk assessment.

- No mechanisms are in place for regular exchanges of information between authorized ministries and agencies for the purposes of monitoring chemical risks.

- Intoxication and poisoning surveillance does not cover all types of chemical events, and SOPs for investigating intoxications and poisonings have not been developed.

- Uzbekistan has no poison control centre.

CE.2 Enabling environment in place for management of chemical events – Score 3

Strengths and best practices

- Uzbekistan has a legal response framework for regulating chemical events.

- Trainings are organized regularly to increase the knowledge and competence of national chemical safety experts. Advanced training is available to increase professional knowledge, competencies and skills in chemical safety, and is provided by specialists from relevant ministries and agencies.

- Industrial and other owners and users of chemicals are legally obliged to develop and implement internal and external emergency response plans.

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2   Detection capacity includes not only surveillance but also the laboratory capacity required to verify events.

Challenges and areas that need strengthening

- Uzbekistan has no legal act that regulates the management of hazardous chemicals.

- There is a need for a defined mechanism that enables cooperation and coordination between relevant agencies and stakeholders.

- Uzbekistan should implement the Globally Harmonized System for Classification and Labelling of Chemicals.

- Laboratory capacities should be strengthened to allow identification of all hazardous chemicals of concern, including emerging chemicals.

- Simulation exercises for chemical events should be conducted regularly at national and international level and should involve health sector staff.

Recommendations for priority actions

- Strengthen the legal basis for regulating hazardous chemicals and responding to chemical events. Clarify the responsibilities of different sectors and stakeholders and establish mechanisms of enforcement, systems for collecting and exchanging information, and principles of chemical risk assessment. Make continuous risk assessments a legal requirement.

- Establish a poison centre according to WHO recommendations.

- Create databases containing information on hazardous chemicals and chemical products, and their producers and importers. Make the database accessible online for authorized stakeholders.

- Implement the Globally Harmonized System for Classification and Labelling of Chemicals and their Mixtures.

- Develop a training programme to strengthen capacities for sound management of chemicals and effective responses to chemical emergencies in the health sector. Establish a national roster of experts in chemicals management.

RADIATION EMERGENCIES

INTRODUCTION

To counter radiological and nuclear emergencies, timely detection and an effective response towards potential radiological and nuclear hazards/events/emergencies are required in collaboration with sectors responsible for radiation emergency management.

> ### Target
> *States Parties should have surveillance and response capacity for radiological emergencies and nuclear accidents. This requires effective coordination among all sectors involved in radiation emergencies preparedness and response.*

LEVEL OF CAPABILITIES

Uzbekistan is a major global supplier of uranium to the nuclear energy industry.

In 2017, the country signed an intergovernmental agreement with the Russian Federation for the construction by 2030 of Uzbekistan's first nuclear power plant. The site selection process for the plant was initiated in 2019.

National plans to develop nuclear power infrastructure are founded on strong government support and a commitment to safety, security and non-proliferation. In addition, Uzbekistan's radiation safety culture is rooted in the history of practices used by the former Soviet Union, which during its existence was prominent in nuclear and radiation safety and protection.

Uzbekistan also benefits from inclusion in the International Atomic Energy Agency (IAEA) technical cooperation framework, through which the IAEA provides assistance to strengthen Uzbekistan's institutional capacity in nuclear safety and security.

Radiation safety in Uzbekistan is ensured through the following:

- The existence of a legal and regulatory framework regulating the safe use of radioactive sources in the industrial, medicine and research sectors
- Established national norms and standards regulating practices for using radiation sources in various exposure situations and the export and import of sources of ionizing radiation
- A unified national system for monitoring and recording individual radiation doses from medical and occupational exposures
- Systematic public information programmes about radiation risks and measures to ensure radiation safety
- Regular radiation safety training for relevant specialists as a part of continuing education requirements
- The existence of emergency response plans to reduce radiation risks to human health, which include:
  - » arrangements for evacuation, sheltering, iodine thyroid blocking, and food and drinking water safety;
  - » hospital preparedness and medical response capabilities;
  - » post-accident recovery in affected areas; and
  - » arrangements for timely responses to deliberate events and threats.

Stakeholders involved in radiation discussions during the JEE mission included the following agencies: the Ministry of Health, the Ministry of Emergency Services, the Ministry of Defence, the Ministry of Internal Affairs, the State Committee for Ecology and Environmental Protection and the State Committee for Industrial Safety.

The JEE team was unable to evaluate the national radiation emergency response plan, as security considerations meant it was not shared with the JEE team. The main role in responding to radiation emergencies belongs to the Ministry of Emergency Services, which leads field responses and provides overall coordination. The Ministry of Health provides emergency medical services and the hospital response. Treatment protocols for radiation injuries (acute radiation syndrome, internal contamination, local radiation injuries, etc.) were said to exist, but were not made available to the JEE team.

The visit to the Ministry of Health National Centre for Continuing Education demonstrated well-established infrastructure for training on radiation emergency response.

Indicators and scores

RE.1 Mechanisms established and functioning for detecting and responding to radiological and nuclear emergencies – Score 4
NB Uzbekistan is working at a score 4 level for this indicator, which requires countries to have "technical guidelines or SOPs developed, evaluated and updated for the management of radiation emergencies (including risk assessment, reporting, event confirmation and notification, and investigation)." As national security concerns made it impossible for the JEE team to verify whether these protocols and SOPs (including for clinical case management of radiation injuries) exist, a level 4 score was accepted by consensus during the discussions.

Strengths and best practices
- Uzbekistan's national response plan is based on a unified, multilevel, multisectoral system that involves all relevant partners in monitoring the radiation situation and responding to emergencies.
- Using monitoring data to guide its work, Uzbekistan conducts analyses of sites and sources of ionizing radiation and the environmental impact of radioactive substances.
- Protective and rehabilitation strategies have been rationalized and optimized to reduce risks to human health from sources of ionizing radiation.
- Various training programmes are available to improve radiation safety competencies and skills. This training is delivered both through formal continuing or primary education for professionals (in advanced training programmes and specializations) and through postgraduate training for specialists from the Ministry of Health and other relevant ministries and agencies.

Challenges and areas that need strengthening
- Uzbekistan would benefit from improvements and upgrades in its use of information technology, including through the establishment, use and/or provision of an automated personal dose monitoring system linked to a database; the use of modern scientific approaches for atmospheric dispersion modelling for radionuclides, prognoses and risk assessments; establishment of a distance learning system with online and offline modes; and use of interactive computer-based educational programmes to strengthen technical capabilities.
- There is a need to improve laboratory capacity, strengthening both equipment and staff. Uzbekistan needs stronger capacity for rapid isotope identification, real-time exposure monitoring and individual dosimetry and dose assessments. There is also a need for biodosimetry equipment, thyroid monitors and whole-body counters.
- There is a need to disseminate technical guides, protocols, and pharmaceuticals for managing radiation injuries.
- Regular training for case diagnosis and clinical management of radiation injuries is required.

RE.2 Enabling environment in place for management of radiation emergencies – Score 4

NB Uzbekistan is working at a score 4 level for this indicator, which requires countries to have a national radiation emergency response plan and national policies, strategies or plans for national and international transport of radioactive materials, samples and waste management, including those from hospitals and medical services. As security concerns made it impossible for the JEE team to verify whether all these plans, protocols and SOPs exist, a level 4 score was accepted by consensus during the discussions.

Strengths and best practices
- Uzbekistan has a legal and regulatory framework on radiation safety and response to radiation accidents. Recent instruments in this framework include the 2018 Decree "On measures for fundamental improvement of the regulatory system in the area of radiation and nuclear safety"; the 2019 Law "On peaceful use of nuclear power"; and the 2019 Decree N869 "On measures to improve the Integrated state system for forecasting, early detection and response to radiation emergencies".
- Uzbekistan has documented international cooperation with the IAEA, having signed an agreement with the IAEA on building capacity and developing nuclear regulatory infrastructure and relevant capabilities for nuclear safety[3]. The IAEA has conducted an infrastructure review mission in Uzbekistan and provided concrete recommendations for a plan of action[4].
- Cooperation with other countries is ongoing to enhance national capacity for safe use of nuclear technologies. There is regular formal and informal exchange of radiation safety experience with foreign countries including Russia, Belarus, Germany and Slovakia.

Challenges and areas that need strengthening
- There is a need to strengthen areas of Uzbekistan's legal and regulatory framework for radiation safety. Existing legal instruments require consolidation, and national regulations, norms and standards need to be adjusted to take international basic safety standards into consideration (i.e. Basic Safety Guidelines (BSS); the Generic Safety Requirements (GSR) Part 3; IAEA, 2014; GSR Part 7; and IAEA, 2015)[5]. The country has not joined the International Conventions on Early Notification and Convention on Assistance in Case of a Nuclear Accident.
- Additional expertise in nuclear law is required to conduct this strengthening process.
- Surveillance and reporting for events also require strengthening. Procedures related to radionuclear hazards should be formalized and institutionalized; mechanisms for surveillance and reporting for potential radiological and nuclear emergencies should be linked with Ministry of Health surveillance systems; and criteria for event-based surveillance and reporting for events related to radionuclear hazards should be defined. In addition, SOPs for decision-making, approval, and reporting under the IHR (2005) should include radiation emergencies in their scope.

Recommendations for priority actions

- Consolidate legal instruments on radiation safety and nuclear security in line with international basic safety standards (i.e. IAEA GSR Part 7) and join the Conventions on Notification and Assistance.

- Strengthen cross-sectoral coordination in radiation emergency preparedness and response (including all-hazards surveillance, reporting, preparedness, and response).

- Develop case management protocols, resources and capacities for diagnosis and treatment of radiation injuries and internal contamination, individual monitoring and dose assessment, and addressing the non-radiological impact of nuclear emergencies.

- Ensure access to external expertise through international cooperation for research and development in radiation emergency medicine.

3   https://www.iaea.org/newscenter/news/uzbekistan-signs-a-country-programme-framework-cpf-for-2022-2027
4   https://www.iaea.org/newscenter/pressreleases/iaea-reviews-uzbekistans-nuclear-power-infrastructure-development
5   GSR Part 3 URL: https://www-pub.iaea.org/MTCD/publications/PDF/Pub1578_web-57265295.pdf
     GSR Part 7 URL: https://www-pub.iaea.org/MTCD/Publications/PDF/P_1708_web.pdf

ANNEX:
JEE BACKGROUND

Mission place and dates

Tashkent, Republic of Uzbekistan, 16-20 May 2022.

Mission team members:

Name	Title
Dr Mark Salter	JEE Team Lead Technical Lead for Medical Countermeasures Linking public health and security Health Security Agency, United Kingdom
Dr Asheena Khalakdina	Team co-lead Technical Lead for Anti-microbial resistance Zoonotic disease WHO Cambodia Country Office
Dr Katinka Debalogh	Technical Lead for Food safety, FAO
Dr Cody Thornton	Technical Lead for Biosafety and Biosecurity National Laboratory Systems ASPR, United States of America
Dr Zhanat Carr	Technical Lead for Radiation emergencies WHO headquarters
Dr Issa Makumbi	Technical Lead for Surveillance Emergency response operations Ministry of Health, Uganda
Dr Ana Guerra Neira	Technical Lead for Immunization, Ministry of Foreign Affairs, Portugal
Dr Mohamed Moussif	Technical Lead for Points of entry Chief Medical Officer at Casablanca International Airport, Morocco
Dr Ben Duncan	Technical Lead for Risk Communication, WHO Regional Office for Europe
Dr Peter Mala	Technical Lead for Reporting, Human Resources, WHO headquarters
Dr Vikki Carr De Los Reyes	Technical Lead for National legislation, policy & financing IHR coordination, communication & advocacy, WHO Regional Office for Europe
Dr Inessa Markus	Technical Lead for Emergency Preparedness Emergency Response Operations, Robert Koch Institute, Germany
Dr Irina Zastenskaya	Technical Lead for Chemical Events, WHO Regional Office for Europe
Dr Sandra Lindmark	Technical Officer, WHO Regional Office for Europe
Mr Mark Nunn	Writer, editor, London, England

WHO Country Office, Uzbekistan

Name	Title
Dr Lianne Kuppens	Dr Lianne Kuppens WHO Representative, Head of Country Office in Uzbekistan
Dr Anna Pashalishvili	National Professional Officer
Dr Bekhruz Yusupov	National Professional Officer
Dr Dildora Sekler	National Professional Officer
Mr Nurahmat Baraev	Program Assistant
Ms Ekaterina Son	Secretary

Objective

To assess Uzbekistan's capacities and capabilities relevant to the 19 technical areas of the JEE tool for providing baseline data to support Uzbekistan's efforts to reform and improve their public health security.

The JEE process

The JEE process is a peer-to-peer review. The entire external evaluation, including discussions around the priority actions, the strengths, the areas that need strengthening, best practices, challenges and the scores are collaborative, with JEE team members and host country experts seeking full agreement on all aspects of the final report findings and recommendations.

Should there be significant and irreconcilable disagreement between the external team members and the host country experts, or among the external experts, or among the host country experts, the JEE team lead will decide the outcome; this will be noted in the final report along with the justification for each party's position.

Limitations and assumptions

- The evaluation was limited to one week, which limited the amount and depth of information that could be managed.

- It is assumed that the results of this evaluation will be publicly available.

- The evaluation was not just an audit. Information provided by Uzbekistan was not independently verified but was discussed and the evaluation rating mutually agreed by Uzbekistan and the evaluation team. This is a peer-to-peer review.

Key host country participants and institutions

List of participants

Name	Title
Ministry of Health of the Republic of Uzbekistan	
Mr Behzod Musaev	Minister of Health
Dr Elmira Basitkhanova	Deputy Minister of Health
Dr Bakhodir Yusupaliev	Director, Service for Sanitary and Epidemiological Wellbeing and Public Health, Ministry of Health
Dr Nurmat Atabekov	Chief Epidemiologist, Ministry of Health
Dr Rustamjon Ikramov	National Coordinator, Service for Sanitary and Epidemiological Wellbeing and Public Health, Ministry of Health
Mr N. Tukhtayev	Head of Department of Emergency Situations, Ministry of Health
Dr Mavlyuda Shamsutdinova	Laboratory Manager, Service for Sanitary and Epidemiological Wellbeing and Public Health, Ministry of Health
Dr Gulchekhra Khamraeva.	Head of Department for Pediatric Anesthesiology and Critical Care, Advanced Training Center for Health Professionals, Ministry of Health
Dr Marianna Krasnenkova	Department of Public Health, Tashkent Medical Academy, Ministry of Health
Dr Farhod Kurbanbekov	Head of Department, Service for Sanitary and Epidemiological Wellbeing and Public Health, Ministry of Health
Dr Nuriya Valieva	Chief Specialist, Service for Sanitary and Epidemiological Wellbeing and Public Health, Ministry of Health
Ms Guljakhon Makhmadkulova	Independent legal consultant, Center for Legal Studies
Dr Dilshoda Akhmedova	Research Officer, Antimicrobial Resistance Center, Ministry of Health
Dr Nargiza Shadmanova	Head of Department of Microbiology, Advanced Training Center for Health Professionals, Ministry of Health
Dr Ludmila Kudasheva	Head of Department of Epidemiology, Service for Sanitary and Epidemiological Wellbeing and Public Health, Ministry of Health
Prof Damir Zaredinov	Advanced Training Center for Health Professionals, Ministry of Health
Mr Azizbek Ilkhomjonov	Service for Sanitary and Epidemiological Wellbeing and Public Health, Ministry of Health
Mr S. Saidov	Pharmacological Committee
Mr Bobur Abidov	Ministry of Health
Dr Boris Pleshkov	Virologist, Service for Sanitary and Epidemiological Wellbeing and Public Health, Ministry of Health
Dilorom Tursunova	Head of Expanded Programme on Immunization
Gulnora Abdukhalilova	Antimicrobial Resistance Center
Furkat Sanaev	Ministry of Health
Bobur Odilov	Ministry of Health
Farkhod Kurbonbekov	Service for Sanitary and Epidemiological Wellbeing and Public Health, Ministry of Health
Marina Li	Advanced Training Center for Health Professionals, Ministry of Health

Name	Title
Oliy Majlis, Parliament of the Republic of Uzbekistan	
Ms Elena Borisova	MP, Legislative Chamber of the Oliy Majlis
Ms Dilorom Faizieva	MP, Legislative Chamber of the Oliy Majlis
Ministry of Emergency Situations of the Republic of Uzbekistan	
Dr Abdusami Ahmadov	Head of Department, Ministry of Emergency Situations
Ministry of Transport of the Republic of Uzbekistan	
Mr U. Samatov	Officer-in-Charge, Ministry of Transport
Ministry of Agriculture of the Republic of Uzbekistan	
Mr Anvar Djumanov	Head of Department for Organic Production and Good Agricultural Practices, Ministry of Agriculture
State Veterinary Committee of the Republic of Uzbekistan	
Ms Nodira Karimova	First Deputy Director, Republican State Centre for Diagnosis of Animal Diseases and Food Safety, State Committee for Veterinary and Livestock Development
Mr Shomurod Rakhmatullaev	Deputy Head of Animal Health Department, State Committee for Veterinary and Livestock Development
Mr Alisher Akhadov	Deputy Head of Food Safety and Diagnostics Department, State Committee for Veterinary and Livestock Development
Ms Venera Chekhovskaya	Veterinary Inspector, Department for State Border and Transport Veterinary Control, State Committee for Veterinary and Livestock Development
State Committee for Ecology and Environmental Protection of the Republic of Uzbekistan	
Mr Murodbek Tukhtabekov	State Committee for Ecology and Environmental Protection
Agency for Development of the Pharmaceutical Industry	
Mr M. Ibragimov	Chief Specialist, Agency for Development of the Pharmaceutical Industry
Red Crescent Society of Uzbekistan	
Mr Sanjar Umarov	Head of Health and Social Care Department
World Bank	
Ms Maya Makhmudova	WB One Health Project
UN Resident Coordinator Office in Uzbekistan	
Ms Roli Asthana	UN Resident Coordinator
Mr Anvar Meliboyev	Communication Officer, Head of the UN Information Centre
Interpreters	
Ms Victoria Eolian	Interpreter
Mr Alisher Khashimov	Interpreter

Supporting documentation provided by Uzbekistan

NATIONAL LEGISLATION, POLICY AND FINANCING

- Law "On sanitary-epidemiological wellbeing of the population" No. ZRU-393 dated 26 August 2015

- Law "On radiation safety" No.120-II dated 31 August 2000.

- Law "On veterinary" No. ZRU-397 dated 29 December 2015

- Concept of the health system development in the Republic of Uzbekistan for 2019-2025, approved by Decree of the President of the Republic of Uzbekistan No. UP-5590 dated 7 December 2018

- Resolution of the President of the Republic of Uzbekistan "On measures to organize activities of the Service of sanitary and epidemiological wellbeing and public health of the Republic of Uzbekistan" No. PP-4790 dated 27 July 2020

- Decree of the President of the Republic of Uzbekistan "On measures to fundamentally improve the system for prevention and management of emergencies" No. UP-5066 dated 1 June 2017

IHR COORDINATION, COMMUNICATION AND ADVOCACY

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- Law No. 657-XII of the Republic of Uzbekistan "On State Sanitary Control" dated 3 July 1992. The current Law was amended in accordance with the Law No. 70-I of RUz dated 6 May 1995, Law No. 772-I of RUz dated 15 April 1999, Law No. 125-II of RUz dated 31 August 2000;

- Law No. 935-XII of the Republic of Uzbekistan "On Veterinary Medicine" dated 3 September 1993, Tashkent, Law No. ZRU-397 of the Republic of Uzbekistan "On amendments and supplements to the Law of the Republic of Uzbekistan 'On Veterinary Medicine' " dated 29 December 2015;

- Law No. 71-II of the Republic of Uzbekistan "On Licensing Certain Types of Activities" dated 25 May 2000. Ibid, Article 7. Definition of Licensed Activities. Activities that are subject to licensing include activities, implementation of which may result in damage to the rights and legitimate interests, health of citizens, public safety and the regulation of which cannot be carried out by methods other than licensing;

- Presidential Decree No. UP-6035 of the Republic of Uzbekistan "On Measures to Mitigate the Coronavirus Pandemic, Fundamental Improvement of the System for Sanitary and Epidemiological Wellbeing and Protection of the Health of the Population" dated 25 July 2020   https://nrm.uz/contentf?doc=629903_ukaz_prezidenta_respubliki_uzbekistan_ot_25_07_2020_g_n_up035_o_merah_po_smyagcheniyu_koronavirusnoy_pandemii_kardinalnomu_sovershenstvovaniyu_sistemy_sanitarno-epidemiologicheskogo_blagopoluchiya_i_ohrany_zdorovya_naseleniya&products=1_vse_zakonodatelstvo_uzbekistana. (This being said, it is to be set forth that efforts to strengthen the physical infrastructure of the Sanitary and Epidemiological Service and its structural subdivisions, construction, reconstruction and capital renovation, provision with high-tech equipment, instrumentation, accessories, specialized equipment, consumables and other supplies, part of which amounts to 1.7 billion Uzbek soums shall be carried out at the expense of the state budget and the part amounting to 194.5 million US dollars – at the expense of funds attracted from international financial institutions (World Bank, Asian Development Bank, Asian Infrastructure Investment Bank).
Ibid, Action Plan for the development of the Service of Sanitary and Epidemiological Wellbeing and Public Health of the Republic of Uzbekistan. Improvement of the physical infrastructure before 2020. Equipping the Republican Specialized Scientific and Practical Medical Centre for Epidemiology, Microbiology, Infectious and Parasitic Diseases with state-of-the art high-tech diagnostic and medical equipment, the Institute of Sanitation and Hygiene, CPQMHI branches, etc.;

- Decree of the President of the Republic of Uzbekistan No. UP-5590 "On comprehensive measures for fundamental improvement of the health care system of the Republic of Uzbekistan" dated 7 December 2018;

- Resolution of the President of the Republic of Uzbekistan No. PP-1652 "On measures to further deepen the reforms of the health care system" dated 28 November 2011;

- Resolution of the President of the Republic of Uzbekistan No. PP-4847 "On measures to further improve the public administration system in the healthcare sector" dated 2 October 2020;

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- Resolution of the President of the Republic of Uzbekistan No. PP-2276 "On measures for the implementation of the project "Equipping the centres of state sanitary and epidemiological surveillance of the Republic of Uzbekistan with laboratory equipment' " dated 24 December 2014;

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- Resolution of the President of the Republic of Uzbekistan No. PP-4059 "On measures for further development of systems of technical regulation, standardization, certification and metrology" dated 12 December 2018;

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- Resolution No. PKM-537 of the Cabinet of Ministers of the Republic of Uzbekistan "On additional measures to prevent the spread of infectious diseases in the Republic of Uzbekistan" dated 24 July 2017;

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- Law of the Republic of Uzbekistan "On sanitary-epidemiological wellbeing of the population" No. 393- XXII. 26 August 2015.

- Resolution of the Cabinet of Ministers of the Republic of Uzbekistan "On measures to implement the International Health Regulations in the Republic of Uzbekistan" No. 220, 31 July 2015.

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- Sanitary rules and regulations "Immunization against infectious diseases in the Republic of Uzbekistan". Immunization of population against infectious diseases. No. 0239-07/4, 17 July 2021.

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- Law of the Republic of Uzbekistan "On sanitary-epidemiological wellbeing of population" dated 15 July 2015;

- Law No. 657-XII of the Republic of Uzbekistan "On State Sanitary Control" dated 3 July 1992. The current Law was amended in accordance with the Law No. 70-I of RUz dated 6 May 1995, Law No. 772-I of RUz dated 15 April 1999, Law No. 125-II of RUz dated 31 August 2000;

- Law No. 935-XII of the Republic of Uzbekistan "On Veterinary Medicine" dated 3 September 1993, Tashkent, Law No. ZRU-397 of the Republic of Uzbekistan "On amendments and supplements to the Law of the Republic of Uzbekistan 'On Veterinary Medicine' " dated 29 December 2015;

- Law No. 71-II of the Republic of Uzbekistan "On Licensing Certain Types of Activities" dated 25 May 2000. Ibid, Article 7. Definition of Licensed Activities. Activities that are subject to licensing include activities, implementation of which may result in damage to the rights and legitimate interests, health of citizens, public safety and the regulation of which cannot be carried out by methods other than licensing.

- Law of the Republic of Uzbekistan "On changes and amendments to the Law of the Republic of Uzbekistan "On Veterinary Medicine" No. ZRU-397 dated 29 December 2015;

- Presidential Decree No. UP-6035 of the Republic of Uzbekistan "On Measures to Mitigate the Coronavirus Pandemic, Fundamental Improvement of the System for Sanitary and Epidemiological Wellbeing and Protection of the Health of the Population" dated 25 July 2020   https://nrm.uz/contentf?doc=629903_ukaz_prezidenta_respubliki_uzbekistan_ ot_25_07_2020_g_n_up035_o_merah_po_smyagcheniyu_koronavirusnoy_pandemii_ kardinalnomu_sovershenstvovaniyu_sistemy_sanitarno-epidemiologicheskogo_blagopoluchiya_i_ ohrany_zdorovya_naseleniya&products=1_vse_zakonodatelstvo_uzbekistana. (This being said, it is to be set forth that efforts to strengthen the physical infrastructure of the Sanitary and Epidemiological Service and its structural subdivisions, construction, reconstruction and capital renovation, provision with high-tech equipment, instrumentation, accessories, specialized equipment, consumables and other supplies, part of which amounts to 1.7 billion Uzbek soums shall be carried out at the expense of the state budget and the part amounting to 194.5 million US dollars – at the expense of funds attracted from international financial institutions (World Bank, Asian Development Bank, Asian Infrastructure Investment Bank).

- Ibid, Action Plan for the development of the Service of Sanitary and Epidemiological Wellbeing and Public Health of the Republic of Uzbekistan. Improvement of the physical infrastructure before 2020. Equipping the Republican Specialized Scientific and Practical Medical Centre for Epidemiology, Microbiology, Infectious and Parasitic Diseases with state-of-the art high-tech diagnostic and medical equipment, the Institute of Sanitation and Hygiene, CPQMHI branches, etc.;

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- Resolution of the President of the Republic of Uzbekistan No. PP-1652 "On measures to further deepen the reforms of the health care system" dated 28 November 2011;

- Resolution of the President of the Republic of Uzbekistan No. PP-4847 "On measures to further improve the public administration system in the healthcare sector" dated 2 October 2020;

- Resolution of the President of the Republic of Uzbekistan No. PP-4790 "On measures to organize the activities of the Service of sanitary and epidemiological wellbeing and public health of the Republic of Uzbekistan" dated 27 July 2020 (conducting inspections at facilities, regardless of the form of ownership, in the event of a real threat of the spread of infectious diseases , as well as man-made or natural disasters that pose a serious threat to human life and health; the total maximum number of employees of the central office, territorial administrations, district (municipal) departments of the Sanitary and Epidemiological Service is 17,554 units; https://nrm.uz/contentf?doc=629898_postanovlenie_prezidenta_respubliki_uzbekistan_

ot_27_07_2020_g_n_pp790_o_merah_po_organizacii_deyatelnosti_slujby_sanitarno-epidemiologicheskogo_blagopoluchiya_i_obshchestvennogo_zdorovya_respubliki_uzbekistan&products=1_vse_zakonodatelstvo_uzbekistana;

- Resolution of the President of the Republic of Uzbekistan No. PP-3729 18 May 2018 "On measures for further improvement of the system for countering the spread of influenza and other acute respiratory infections in the Republic of Uzbekistan". https://nrm.uz/contentf?doc=543841_postanovlenie_prezidenta_respubliki_uzbekistan_ot_18_05_2018_g_n_pp729_o_merah_po_dalneyshemu_sovershenstvovaniyu_sistemy_protivodeystviya_rasprostraneniyu_grippa_i_drugih_ostryh_respiratornyh_infekciy_v_respublike_uzbekistan&products=1_vse_zakonodatelstvo_uzbekistana;Ibid, 2018 Program of measures to combat the spread of influenza and other acute respiratory infections in the Republic of Uzbekistan;

- Resolution of the President of the Republic of Uzbekistan No. PP-4666 "On measures to introduce a completely new system of training and continuous professional development of personnel in the health sector" dated 4 July 2020;

- Resolution of the President of the Republic of Uzbekistan No. PP-2276 "On measures for the implementation of the project "Equipping the centres of state sanitary and epidemiological surveillance of the Republic of Uzbekistan with laboratory equipment' " dated 24 December 2014;

- Resolution of the President of the Republic of Uzbekistan No. PP-4159 "On organization of measures to introduce best international practices in health care reforms" dated 5 February 2019;

- Resolution of the President of the Republic of Uzbekistan No. PP-1319 "On measures to streamline the licensing of pharmaceutical and medical activities" dated 7 April 2010;

- Resolution of the President of the Republic of Uzbekistan No. PP-4059 "On measures for further development of systems of technical regulation, standardization, certification and metrology" dated 12 December 2018;

- Resolution of the President of the Republic of Uzbekistan No. PP-3643 "On measures to further improve the system for accreditation of conformity assessment bodies" dated 30 March 2018;

- Resolution of the President of the Republic of Uzbekistan No. PP-4310 "On measures for further development of the system for medical and pharmaceutical education and science" dated 06 May 2019;

- Resolution No. PKM-220 of the Cabinet of Ministers of the Republic of Uzbekistan "On measures to introduce the International Health Regulations in the Republic of Uzbekistan" dated 31 July 2015, HTTPS://LEX.UZ/DOCS/2716476;

- Ibid, List of public and administrative bodies, which are responsible, within their mandates, for implementation of medical and sanitary measures pertinent to introduction of the International Health Regulations.

- Resolution No. PKM-170 of the Cabinet of Ministers of the Republic of Uzbekistan "On measures to further improve the activities and the system of securing the sanitary and epidemiological service of the Republic with skilled workforce" dated 26 June 2015;

- Resolution No. PKM-537 of the Cabinet of Ministers of the Republic of Uzbekistan "On additional measures to prevent the spread of infectious diseases in the Republic of Uzbekistan" dated 24 July 2017;

- Resolution No. PKM-477 of the Cabinet of Ministers of the Republic of Uzbekistan "On approval of the regulations on licensing of medical and pharmaceutical activities", Tashkent, 31 October 2003;

- Resolution No. PKM-405 of the Cabinet of Ministers of the Republic of Uzbekistan "On measures to further improve the procedure of licensing medical activities" dated 21 June 2017;

- Resolution No. PKM-348 of the Cabinet of Ministers of the Republic of Uzbekistan "On measures to further improve the activities of the Uzbek Agency for Standardization, Metrology and Certification" dated 24 April 2019;

- Resolution No. PKM-349 of the Cabinet of Ministers of the Republic of Uzbekistan "On further

measures to improve procedures of accreditation of conformity assessment bodies" dated 24 April 2019;

- Resolution No. PKM-220 of the Cabinet of Ministers of the Republic of Uzbekistan "On organizing the activities of the Research Institute of Standardization, Certification and Technical Regulation under 'Uzstandart' Agency" dated 14 March 2019 ;

- Resolution No. 548 of the Cabinet of Ministers of the Republic of Uzbekistan dated 2 July 2019.

- Resolution No. 40 of the Cabinet of Ministers of the RUz dated 22 January 18;

- Resolution No. 884 of the Cabinet of Ministers of the RUz dated 29 October 18;

- Resolution No. 934 of the Cabinet of Ministers of the RUz dated 19 November 18;

- Resolution No. 15 of the Cabinet of Ministers of the RUz dated 10 January 19;

- Resolution No. 398 of the Cabinet of Ministers of the RUz dated 13 May 19;

- Resolution No. 548 of the Cabinet of Ministers of the RUz dated 02 July 19;

- Resolution No. 886 of the Cabinet of Ministers of the RUz dated 21 October 19;

- Resolution No. 1046 of the Cabinet of Ministers of the RUz dated 28 December 19;

- Resolution No. 24 of the Cabinet of Ministers of the RUz dated 14 January 20;

- Resolution No. 384 of the Cabinet of Ministers of the RUz dated 16 June 20. http://continent-online.com/Document/?doc_id=37462807&show_di=1

- Order No. 1 "On improving measures to prevent the emergence, spread and prevention of plague in the Republic" dated 1 February 2002, p. 89.

- Ministry of Health RUz Order "On organization of training courses in laboratory diagnostics of COVID-19" dated 22 June 2020;

- Ministry of Health RUz Order No. 468 "On approval of diagnostic and treatment standards and clinical protocols" dated 19 July 2018.

- Ministry of Health RUz Order No. 37 "On measures to improve zoonotic infection control in the Republic" dated 25 February 2015.

- Ministry of Health RUz Order No. 310 "Training in prevention of high threat infections for physicians and nurses" dated 29 October 2012.

- Ministry of Health RUz Order No. 177 "On improvements in testing procedures at bacteriology, virology, and high-threat pathogen laboratories dated 1 May 2015.

- Ministry of Health RUz Order No. 25 "On strengthening cholera surveillance in the Republic" dated 25 January 2012.

- Ministry of Health RUz Order No. 287 "Medical Recording Forms" dated 26 June 2006.

- Ministry of Health RUz Order No. 280 "On sending emergency notifications to Ministry of Health RUz" dated 11 September 2009

- Ministry of Health RUz Order No. 337 "On approval of methodological recommendations for regulation of laboratories applying the enzyme-linked immunosorbent assay (ELISA) and polymerase chain reaction (PCR)" dated 10 November 2009

- Letter of Instruction No. 012-5/1118 "On measures to improve treatment of patients with CCHF" to enforce Ministry of Health RUz Order No. 226 dated 16 May 2016

- Ministry of Health RUz Order No. 37 "On improving measures to control the highest-threat zoonotic diseases in the country" dated 23 January 2015.

- Order No. 631 "On introduction of case definitions into the system of recording and registration of selected infectious diseases" dated 27 December 2005.

- "Rules of 'Biological safety when handling Hazard Class I-II Pathogenic Biological Agents" No. 012-3/0193 dated 7 January 2011.

- "Recommendations for practicing hands-on skills of health care workers from health care facilities during exercises to localize and eliminate foci of quarantine and high-threat infections", Tashkent – 2009.

- Guidelines for outbreak investigation and response in Uzbekistan, 2017, Republic of Uzbekistan, p. 34

- Instructions for taking primary measures when burying corpses of people who died from plague, cholera and other quarantine and high-threat infections or suspected of having had these infections, Tashkent – 2009.

- SanPiN No. 0317-15. Sanitary rules and regulations for collection, storage and disposal of waste at health care facilities in the Republic.

- Order No. 409 "On approval of the Regulations for the Commissions for Monitoring Compliance with Biological Safety Rules and the composition of the Central Commission for Monitoring Compliance with Biological Safety Rules of the Ministry of Health of the Republic of Uzbekistan", Tashkent, dated 12 June 2013

- Sanitary Rules and Regulations on Radiation Safety, 0029-94 April 1994

- Rules and regulations for evacuation and hospitalization of infectious patients, 0043-95, dated 25 August 1995.

- Rules and regulations for organization and control of disinfection and sterilization activities at health care facilities. 0044-95, dated 25 August 1995.

- Rules and regulations for organization and conducting concurrent and terminal disinfection in epidemiological foci, 0045-95, dated 25 August 1995.

- 2015-2020 National Action Plan of Ministry of Health RUz "On maintaining status of a country free from circulation of wild polio virus" dated 2015, "Response to preventing the importation of wild poliovirus into the country" 2016.

- Methodological Recommendations "CCHF Diagnostics Algorithm", 2008.

- Instructions No. 01-11/34-09 for the use of concentrated purified inactivated dry rabies vaccine, lyophilizate for preparation of a solution for intramuscular administration and rabies immunoglobulin, approved by the Chief State Sanitary Doctor of the Russian Federation dated 26 March 2009.

- PZ-2017090828 "Development of clinical, epidemiological and laboratory criteria for parvovirus infection in Uzbekistan"

- MU-PZ-20171025174 "Development of a diagnostic algorithm for hantavirus infection" (causative agents of haemorrhagic fevers)".

- Regulations for the Department of licensing and quality control of health services provided by non-government health facilities, Ministry of Health of the Republic of Uzbekistan

SURVEILLANCE

- WHO IHR Annex 2

- WOAH Terrestrial Animals and Health Code - Section 1

- IHR reports to the WHA

- Legislation, protocols or other policies related to reporting to WHO and WOAH

- WAHIS.

- Order of the Ministry of Health of the Republic of Uzbekistan "On improvement of registration system for selected infectious and parasitic diseases" No. 630 dated 13 December 2000

- Order of the Ministry of Health of the Republic of Uzbekistan "On pilot testing of IS EMID" No. 805 dated 30 May 2011, Annex No. 1, Action Plan, Order "On measures for further implementation and development of up-to-date ICT" No. 76 dated 28 March 2012

- Order of MoH RUz "On measures for further implementation and development of up-to-date ICT" No. 76 dated 26 March 2012

- Order of the Ministry of Health of the Republic of Uzbekistan "On improvement of surveillance of acute respiratory infections" No. 242 dated 14 July 2014 and

- Order of the Ministry of Health of the Republic of Uzbekistan "On improvement of surveillance of acute respiratory infections in Tashkent" No. 62 dated 10 March 2020

- Order of MoH RUz "On measures to further improve advanced training of health personnel" No. 140 dated 22 March 2016

- Order of MoH RUz "On approval of the procedures for preparation, storage and issue of certificates and reports in the advanced training and retraining system for health personnel" No. 210 dated 16 July 2012

- Order No. 280 dated 11 September 2009 "On emergency notifications to the Ministry of Health of the Republic of Uzbekistan" if a disease due to various chemical factors is suspected;

REPORTING

- Resolution of the Cabinet of Ministers "On measures to implement the International Health Regulations in the Republic of Uzbekistan" No. 220 dated 31 July 2015

- Order of the chairman to appoint a representative in WOAH and focal points No. 53 dated 18 April 2018

HUMAN RESOURCES (ANIMAL AND HUMAN HEALTH SECTORS)

- Law No. 71-II of the Republic of Uzbekistan "On Licensing Certain Types of Activities" dated 25 May 2000

- Law of the Republic of Uzbekistan "On education" No. 464-I dated 29.08.97

- Decree of the President of the Republic of Uzbekistan No. UP-5590 "On comprehensive measures for fundamental improvement of the health care system of the Republic of Uzbekistan" dated 7 December 2018

- Resolution of the President of the Republic of Uzbekistan "On implementation of measures for fundamental improvement of health care and social security system for 2019-2029"

- Resolution of the President of the Republic of Uzbekistan dated 22.10.2020 No. PP-4870 "On measures to organize a qualitatively new personnel training system in the area of military medicine"

- PKM of RUz No. 240 dated 31.07.2015 " On measures to implement the International Health Regulations in the Republic of Uzbekistan "

- MoH RUz Order No. 1 "On improving measures to prevent the emergence, spread and prevention of plague in the Republic" dated 1 February 2002

- Ministry of Health RUz Order No. 37 "On measures to improve zoonotic infection control in the Republic" dated 25 February 2015

- Ministry of Health RUz Order No. 280 "On sending emergency notifications to Ministry of Health RUz" dated 11 September 2009

- Order No. 631 "On introduction of case definitions into the system of recording and registration of selected infectious diseases" dated 27 December 2005

- "Rules of 'Biological safety when handling Hazard Class I-II Pathogenic Biological Agents" No. 012-3/0193 dated 7 January 2011

- Ministry of Health RUz Order No. 177 "On improvements in testing procedures at bacteriology, virology, and high-threat pathogen laboratories dated 1 May 2015

- "Recommendations for practicing hands-on skills of health care workers from health care facilities during exercises to localize and eliminate foci of quarantine and high-threat infections", Tashkent – 2009

- Instructions for taking primary measures when burying corpses of people who died from plague, cholera and other quarantine and high-threat infections or suspected of having had these infections, Tashkent – 2009

- SanPiN No. 0317-15. Sanitary rules and regulations for collection, storage and disposal of waste at health care facilities in the Republic.

- SanPiN No. 0239-7, third revision. Sanitary rules and regulations "Immunization against infectious diseases".

- Order of MoH RUz No. 36 dated 27.01.2015 "On organization and implementation of immunization against preventable infectious diseases"

- Regulations for health (sanitary) control at national border crossing points of the Republic of Uzbekistan. (Registered with the Ministry of Justice of RUz, No. 927 dated 22 May 2000)

- 2015-2020 National Action Plan of Ministry of Health RUz "On maintaining status of a country free from circulation of wild polio virus" dated 2015, "Response to preventing the importation of wild poliovirus into the country" 2016

- Temporary guidelines on epizootological examination of the Central-Asian desert plague foci

- Methodological Recommendations "CCHF Diagnostics Algorithm", 2008

- Resolution of the Cabinet of Ministers of the Republic of Uzbekistan No. 202 "On measures to improve activities of services related to capture and housing of stray animals" dated 8 July 2011

- Order of MoH RUz dated 14 July 2011, No. 210 "On further improvement of measures to prevent rabies in humans"

- Instructions No. 01-11/34-09 for the use of concentrated purified inactivated dry rabies vaccine, lyophilizate for preparation of a solution for intramuscular administration and rabies immunoglobulin, approved by the Chief State Sanitary Doctor of the Russian Federation dated 26 March 2009

- Instructions on No. 01-11/137-08 for the use of human anti-rabies immunoglobulin, 150 IU/ml solution for injections, approved by the Chief State Sanitary Doctor of the Russian Federation on 17 September 2008.

EMERGENCY PREPAREDNESS

- Resolution of the Cabinet of Ministers of the Republic of Uzbekistan No. 1027 dated 29 December 2017 "On establishment of the Integrated system for monitoring, information exchange and forecasting of natural, man-made and environmental emergencies" (https://lex.uz/uz/docs/3481024).

- Resolution of the Cabinet of Ministers "On approval of the procedure for establishment, use and recovery of reserves of financial and material resources to manage emergency situations" No. 137 dated 15 February 2019.

- Decree of the President of the Republic of Uzbekistan dated 10.11.2014 "On improving the establishment of state material reserves of the Republic of Uzbekistan" (item 52) and Instruction "On the pricing procedures for material assets of Groups 1 and 2", approved by the Resolution of the Ministry of Finance of the Republic of Uzbekistan and Uzgoskomrezerv, registered under No. 2783, for official use only (item 22) on ensuring timely and quality stock-taking and reassessment of material assets

- Order of the Ministry of Health of the Republic of Uzbekistan No. 263 dated 08.10.2020 (for official use only). Stock-taking reports for specialized warehouses of medical assets of Group 2 civil protection (classified).

- Resolution of the Cabinet of Ministers of the Republic of Uzbekistan "On measures to further improve the State Emergency Prevention and Response System of the Republic of Uzbekistan" No. 515 dated 26 August 2020

- Annex 3 to Resolution of the Cabinet of Ministers of the Republic of Uzbekistan No. 515 dated 26 August 2020

- Members of the Commission for building resilience of the MoH facilities were endorsed by Order No. 451 dated 13.07.2018. The chairman of the Commission composed of 7 persons is the Deputy Minister for economic affairs

- Order of the Ministry of Health of the Republic of Uzbekistan No. 18 dated 18.01.2020

- Joint resolution of MoH and Ministry of Emergency Services No. 13/5 dated 10.04.2018, which defines roles and responsibilities of civil defense units for any mass gathering events, was approved pursuant to Resolution of Cabinet of Ministers No. 369 dated 09.06.2017

EMERGENCY RESPONSE OPERATIONS

- Resolution of the Cabinet of Ministers of the Republic of Uzbekistan "On measures to further improve the State Emergency Prevention and Response System of the Republic of Uzbekistan" No. 515 dated 26 August 2020

- Resolution of the Cabinet of Ministers No. 455 dated 27 October 1998 "On classification of natural, man-made and environmental emergencies"

- Order of the Prime Minister – Head of Civil Defense of the Republic of Uzbekistan No.3, dated 2008, "On approval and enactment of the Instruction for day-to-day emergency-related interaction and information sharing among ministries and agencies

- Resolution of the Cabinet of Ministers of the Republic of Uzbekistan No. 754 dated 09.09.2019 "On improvement of the procedures for training of population in civil defense and emergency actions".

- The roster and number of surge staff is determined by the special plan of MoH RUz, which was approved by Ministry of Emergency Services RUz. The most recent plan is dated 15.04.2017.

- Joint resolution of MoH, Ministry of Emergency Services, MIA, Ministry of Defense, Ministry of Transport and Red Crescent Society of RUz No. 21/7/32/15/193/828 dated 12.11.2018

- Resolution of the Cabinet of Ministers of the Republic of Uzbekistan No. 754 dated 09.09.2019 "On improvement of the procedures for training of population in civil defense and emergency actions".

- Order of the Head of Civil Defense of RUz No. 3 dated 26 December 2008

LINKING PUBLIC HEALTH AND SECURITY AUTHORITIES

- Resolution of the Cabinet of Ministers of the Republic of Uzbekistan No. 515 dated 26 August 2020 "On measures to further improve the State Emergency Prevention and Response System of the Republic of Uzbekistan" (https://lex.uz/ru/docs/4972396).

- Resolution of the Cabinet of Ministers of the Republic of Uzbekistan No.869 dated 15 October 2019 "On measures to improve the Integrated state system for forecasting, early detection and response to radiation emergencies" (https://lex.uz/ru/docs/4559315).

- Joint resolution of MIA, Ministry of Emergency Services, MoH, Ministry of Defense "On approval of the Instructions for information sharing in case of identification of chemical, biological, radiation or nuclear (CBRN) materials at the state border crossing points of the Republic of Uzbekistan" (under the IHR (2005) requirements).

- Instructions (SOP) of MIA, Ministry of Emergency Services, Ministry of Defense, State Security Service, National Guard, General Prosecutor's Office, State Customs Committee, MoH, SES, Ministry of Transport for prevention of epidemics and ensuring sanitary-epidemiological wellbeing of the population

MEDICAL COUNTERMEASURES AND PERSONNEL DEPLOYMENT

- Instructions for long-term storage of material resources at medical warehouses approved by MoH of RUz on 01 July 1997 (for official use only).

- Order of the Ministry of Health No. 631 dated 27 December 2005 "On introduction of case definitions in the recording and registration system for selected infectious diseases".

- Order No. 1 dated 2 January 2002 "On improving measures to prevent the emergence and spread of plague in the Republic".

- Order of Ministry of Health RUz No. 25 dated 5 January 2012 "On strengthening cholera surveillance in the Republic".

- Order of Ministry of Health RUz No. 37 dated 23 February 2015 "On improvement of measures against transmission of high-threat zooanthroponoze infections among the population of the Republic"

RISK COMMUNICATION

- Resolution of the Cabinet of Ministers of the Republic of Uzbekistan "On measures to implement the International Health Regulations in the Republic of Uzbekistan" No. 220 dated 31 July 2015 https://lex.uz/docs/2716476

- State Programme for implementation of the Action Strategy for five priority development areas of the Republic of Uzbekistan for 2017-2021 in the "Year of Supporting Youth and Strengthening Public Health" https://lex.uz/docs/5260791

- Decree of the President of the Republic of Uzbekistan No. 5537 dated 29 January 2020 established the Republican Special Commission to develop the action plan for prevention of importation and spread of coronavirus in the Republic of Uzbekistan https://lex.uz/docs/4720398

- Media plan concerning health information and advice to the public agreed between the Ministry of Health, Ministry of Emergency Situations, and National Television and Radio Company of Uzbekistan in 2020 (internal document).

POINTS OF ENTRY

- Resolution of the Cabinet of Ministers "On measures to implement the International Health Regulations in the Republic of Uzbekistan" No. 220, dated 31 July 2015

- Order No. 41 of the Ministry of Health of the Republic of Uzbekistan dated 27 February 2020.

- Resolution of the Cabinet of Ministers of the Republic of Uzbekistan "On improvement of procedures for border, customs, sanitary-quarantine, phytosanitary and veterinary control at checkpoints of the Republic of Uzbekistan" No. 912 dated 18 November 2019.

- Order of the Ministry of Health of the Republic of Uzbekistan "On improved measures to prevent importation and spread of COVID-19 in the country" No. 41 dated 27 February 2020.

- Resolution of the Cabinet of Ministers of the Republic of Uzbekistan "On measures to further improve the State Emergency Prevention and Response System of the Republic of Uzbekistan" No. 515 dated 26 August 2020.

- The Schedule for the action plan to mitigate consequences of the pandemic approved by the Prime Minister of the Republic of Uzbekistan under No. 02/1-852 dated 25 March 2020.

- Regulations on medical (sanitary) control at border crossing points of the Republic of Uzbekistan No. 927 dated 22 May 2000 registered with the Ministry of Justice

- Decree of the President of the Republic of Uzbekistan No. 5537 dated 29 January 2020.

- Sanitary rules and regulations No. 0161-04 "Sanitary rules and regulations for protection of the area of the Republic of Uzbekistan against importation and spread of high-threat and other human infectious diseases" (SanPiN).

CHEMICAL EVENTS

- Law of RUz No. 824-I dated 20 August 1999 "On protection of the population and territories from natural and man-made emergencies".

- Resolution of the Cabinet of Ministers of the Republic of Uzbekistan No. 515 dated 27 August 2020 "On measures to further improve the State Emergency Prevention and Response System of the Republic of Uzbekistan".

- Resolution of the Cabinet of Ministers No. 735 dated 5 September 2019 "On measures to improve the testing and registration system for chemical and plant protection agents"

- Law of RUz No. ZRU-535 dated 8 May 2019 "On ratification of the Stockholm Convention on persistent organic pollutants (Stockholm, 22 May 2001). Resolution of Oliy Majlis of RUz No. 188-1 dated 22 December 1995 "On accession to the Basel Convention on the control of transboundary movements of hazardous wastes and their disposal (Basel, 22 March 1989)".

- Decree of the Cabinet of Ministers dated August 24, 2011 No. 242 "On further improvement of the State System for Prevention and Action in Emergency Situations of the Republic of Uzbekistan

- Order No. 280 dated 11 September 2009 "On emergency notifications to the Ministry of Health of the Republic of Uzbekistan" if a disease due to various chemical factors is suspected;

- Decree of the President of RUz No. UP-4985 dated 16 March 2017 "On measures to further improve the emergency care system" https://lex.uz/docs/3135432

- Resolution of the Cabinet of Ministers of RUz No. 75 dated 1 February 2019 "On approval of the Regulations for the State Committee for Industrial Safety of RUz" https://lex.uz/docs/4187154

- Resolution of the Cabinet of Ministers of RUz No. 765 dated 2 December 2020 "On streamlining imports of chemical and plant protection agents to the Republic";

- Resolution of the President of RUz No. 4790 dated 27 July 2020 "On measures to organize the operations of the Sanitary-Epidemiological Wellbeing and Public Health Service of RUz". The National Reference Laboratory was established on the basis of the Laboratory Complex.

RADIATION EMERGENCIES

- Law of RUz "On peaceful use of nuclear power" No. ZRU-565 dated 09.09.2019.

- Law of RUz "On radiation safety" No. 120-II dated 31.08.2000.

- PKM RUz No. 869 dated 15.10.2019 "On measures to improve the Integrated state system for forecasting, early detection and response to radiation emergencies.

- Decree of the President of the Republic of Uzbekistan No. UP-5594 dated 12.12.2018 "On measures for fundamental improvement of the State management and supervision system in the area of industrial, radiation and nuclear safety" and Resolution of the President of the Republic of Uzbekistan No. PP-4058 dated 12.12.2018 "On organizing activities of the State Committee for industrial safety of the Republic of Uzbekistan."

- Decree of the President of the Republic of Uzbekistan "On measures for development of nuclear energy in the Republic of Uzbekistan" dated 19 July 2018.

- ПКМ РУз №869 15.10.2019 г. «О мерах по совершенствованию единой государственной системы прогнозирования, раннего выявления и реагирования на радиационные аварии».

- PKM RUz "On approval of the Regulations on the State Committee for industrial safety of the RUz" No. 75 dated 01.02.2019.

- SanPiN 0193-06 "Radiation safety standards and basic sanitary rules to ensure radiation safety."

- Guidelines for Outbreak/Event Investigation and Response in the Republic of Uzbekistan.

- Order of MoH RUz No. 280 dated 11.09.2009.

- PKM No.968 dated 27.11.2018 "On approval of the National Action Plan of RUz to implement international instruments in the area of ensuring safety of chemical, biological, radiation and nuclear (CBRN) materials for 2018-2021."

- PKM No. 143 dated 11.04.1996 "On organization of activities of the Ministry of Emergency Situations of RUz"

- Decree of the President of RUz "On measures for fundamental improvement of the State management and supervision system in the area of industrial, radiation and nuclear safety" No. UP-5594 dated 12.12.2018.

- PKM No. 714 dated 12.09.2017 "On organization of activities of the Ministry of Health of RUz."

- Law "On sanitary-epidemiological wellbeing of the population" No. 393 dated 26.08.2015.

- UP RUz No. 5863 dated 30.10.2019 "On approval of the Environmental Protection Concept of the Republic of Uzbekistan until 2030."

- PKM No.273 dated 23.08.2016 "On approval of the environmental monitoring programme in RUz."

- PKM No.35 dated 16.02.2011 "On approval of rules for carriage of dangerous goods by road in RUz."

- PP RUz No. 4564 dated 10.01.2020 "On accession to international treaties."

- Guidelines of MoH RUz "Rules for carriage of radioactive materials by road."