JOINT EXTERNAL EVALUATION
OF IHR CORE CAPACITIES
of the

REPUBLIC OF TAJIKISTAN

Mission report: 21-25 October 2019





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Joint external evaluation of IHR core capacities of the Republic of Tajikistan: mission report, 21-25 October 2019 ISBN 978-92-4-001824-2 (electronic version)

ISBN 978-92-4-001825-9 (print version)

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Suggested citation. Joint external evaluation of IHR core capacities of the Republic of Tajikistan: mission report, 21-25 October 2019. Geneva: World Health Organization; 2020. Licence: CC BY-NC-SA 3.0 IGO.

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Design and layout by Genève Design.

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Joint External Evaluation of IHR Core Capacities of the Republic of Tajikistan

ACKNOWLEDGEMENTS

- The Joint External Evaluation (JEE) Secretariat of the World Health Organization (WHO) would like to express appreciation to the following institutions and professionals, whose support and commitment to the principles of the International Health Regulations (IHR (2005)) have ensured a successful outcome to this JEE mission.
- The Government of the Republic of Tajikistan for the support in conducting the JEE mission; and, in particular, the national experts from ministries and agencies of the Republic of Tajikistan, including and in particular those working at the Ministry of Health and National Population Protection, for their work and support in preparing for and conducting the JEE mission;
- The Governments of the Federal Republic of Germany, the Kingdom of Spain, the Republic of Finland, the Republic of Serbia, the State of Israel and the United States of America, for providing technical experts for the peer review process;
- The European Centre for Disease Prevention and Control, for its contribution of experts and expertise;
- The following WHO entities: the WHO Regional Office for Europe and the WHO Country Office of Tajikistan;
- The Global Health Security Agenda Initiative for its collaboration and support;
- The Federal Republic of Germany for its financial support to this mission.

ABBREVIATIONS

AAR After action review

AFP Acute flaccid paralysis

AMR Antimicrobial resistance

BioDoseNet Global biodosimetry network for radiation emergencies

BSL Biosafety level

CAESAR Central Asian and Eastern European Surveillance of Antimicrobial

Resistance

CCHF Crimean Congo haemorrhagic fever

CIP Cataloguing-in-Publication

CoES Committee of Emergency Situations and Civil Defense

DHIS2 District Health Information System 2

EBS Event-based surveillance

EQA External quality assessment

EMT Emergency medical team

EOC Emergency operations centre

EPI Expanded programme on immunization

FAO Food and Agriculture Organization

FETP Field epidemiology training programme

FSC Food Security Committee

Gavi, the Vaccine Alliance (formerly the Global Alliance for Vaccines and

Immunisation)

GLASS Global Antimicrobial Resistance Surveillance System

HPV Human papillomavirus

IAEA International Atomic Energy Agency

IHR International Health Regulations (2005)

IHR NFP National IHR Focal Point

INFOSAN International Food Safety Authorities Network

IPC Infection prevention and control

ISO International Organization for Standardization

JEE Joint External Evaluation

Laboratory information system

MR Measles rubella

MMR Measles mumps rubella

MoA Ministry of Agriculture

MoF Ministry of Finance

MoHSPP Ministry of Health and Social Protection of the Population

NAPHS National Action Plan for Health Security

NFP National Focal Point

NCFSD National Center for Food Security Diagnosis

NIP National immunization programme

OIE World Organisation for Animal Health

PHEIC Public health emergency of international concern

PoE Points of entry

PTSD Post-traumatic stress disorder

PVS Performance of veterinary services

RANET Response Assistance Network

RCIP Republican Centre of Immunoprophylaxis

REACT Rapid Emergency Assessment and Coordination Team

REMPAN Radiation Emergency Medical Preparedness and Assistance Network

SOP Standard operating procedure

TB Tuberculosis

TrACSS Tripartite AMR Country self-assessment survey

UN United Nations

UNICEF United Nations International Children's Emergency Fund

UNSC United Nations Security Council

US CDC United States Centers for Disease Control and Prevention

VPD Vaccine preventable disease

WAHIS World Animal Health Information System

WHO World Health Organization

EXECUTIVE SUMMARY

The JEE team would like to express its appreciation to the Republic of Tajikistan for volunteering for a JEE. This shows a commitment, foresight and leadership from senior levels of government that will be critical to success in building and maintaining the core capacities of the Republic of Tajikistan under the IHR (2005).

The JEE is part of a continuing process that the country has undertaken in order to implement the IHR (2005) that has been ongoing since 2007. Once the JEE process is completed, the priority actions from this report can be captured in the National Action Plan for Health Security (NAPHS) of the Republic of Tajikistan, including costed activities if requested.

Findings from the joint external evaluation

During the JEE mission, 19 technical areas comprising 49 indicators were evaluated through a peer-to-peer, collaborative process that brought together international and national subject matter experts, including authorities of the Republic of Tajikistan for one week collaborative discussions and field visits. This process led to consensus on scores and priority actions in all technical areas.

The members of the JEE mission came from multiple countries. The external team was a manifestation of the purpose of the IHR (2005) in itself: to work across all borders to prevent, detect and respond to public health emergencies; to strengthen capacities for national public health preparedness and global health security; to promote transparency and the sharing of information across sectors and beyond borders; and, ultimately, to help achieve health for all.

The Republic of Tajikistan acknowledges the importance of preventing, preparing for, detecting, responding to and recovering from public health emergencies. A comprehensive legislative and policy framework enables the implementation of the core capacities under the IHR (2005), composed of several strategic and guiding documents including the National Development Strategy of the Republic of Tajikistan for the period up to 2030, the National People's Health Strategy of the Republic of Tajikistan for 2010–2020, the Health Code of the Republic of Tajikistan (2017) and the National Disaster Risk Reduction Strategy of the Republic of Tajikistan for 2019–2030.

Four main institutions collaborate in the development, strengthening and maintenance of IHR (2005) core capacities in the Republic of Tajikistan: the Ministry of Health and Social Protection of the Population (MoHSPP) of the Republic of Tajikistan, the Ministry of Agriculture (MoA) of the Republic of Tajikistan, the Food Security Committee (FSC) under the Government of the Republic of Tajikistan and the Committee of Emergency Situations and Civil Defense (CoES) under the Government of the Republic of Tajikistan. An Intersectoral Coordination Committee has been established upon the initiative of the MoHSPP to facilitate multisectoral collaboration on IHR-related matters, and ad-hoc interagency working groups have been created for specific areas, such as on the strengthening of the laboratory service system, or on antimicrobial resistance (AMR). Well-established, multi-level and multisectoral mechanisms are in place between public health and security authorities for all-hazard emergency management. Furthermore, the Republic of Tajikistan has reported high immunization coverage for all vaccines included in the national immunization calendar, although ensuring sustainable financing for the national immunization programme (NIP) remains a challenge.

Four overarching recommendations emerged from the week to strengthen IHR core capacities in the Republic of Tajikistan. These are intended to address cross-cutting challenges affecting capacities across many of the different technical areas that are explored to a greater extent in the JEE report:

- 1. Strengthening the National IHR Focal Point (IHR NFP) by including its legal status, structure and functions in the Health Code of the Republic of Tajikistan.
- 2. Raising awareness about the IHR's (2005) requirements across sectors human health, animal health, the environment, agriculture and transport, including related stakeholders such as the FSC, the CoES and security authorities.
- 3. Strengthening capacities for detection, reporting and immediate notification of public health events, including through improved coordination among the sectors of human health, animal health and the environment.
- Testing the functionality of multisectoral coordination mechanisms for public health preparedness and response through simulation exercises.

Scores and priority actions of the Republic of Tajikistan

The table below is the summary of the final scores for each technical area (further details 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/ihr/publications/WHO_HSE_GCR_2016_2/en/

The scoring is done on 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.

Joint External Evaluation of IHR Core Capacities of the Republic of Tajikistan

SCORES AND PRIORITY ACTIONS

Technical areas	Indicator no.	Indicator	Score	Priority Actions
PREVENT				
National legisla- tion, 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	 Amend the Health Code of the Republic of Ta-jikistan to include the legal status, structure and functions of the IHR NFP. Update the review of national legislation to ensure that IHR requirements are adequately embedded in relevant laws, ministerial decrees and policies. Allocate the adequate budget line for the imple-
	P.1.2	Financing is available for the implementation of IHR capacities	3	mentation of all IHR capacities and increase funding related to IHR activities in all sectors.
	P.1.3	A financing mechanism and funds are available for timely response to public health emergen- cies	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	2	 Develop operational procedures for intersectoral coordination and exchange of information on IHR implementation between the IHR NFP and other sectors, including through the designation of contact persons in relevant institutions. Raise awareness about the IHR (2005) and the NFP functions across all relevant stakeholders including within the MoHSPP. Conduct regular simulation exercises to train and test IHR NFP functions, including that of multisectoral coordination. Enhance the human resources capacity of the designated IHR NFP, including through the appointment of staff member(s) responsible solely for the implementation of IHR-related functions.
Antimi- crobial	P.3.1	Effective multisectoral coordination on AMR	4	Improve the system for epidemiological and laboratory-based surveillance and reporting for
resistance	P.3.2	Surveillance of AMR	3	AMR in both animal and human health sectors. • Expand the programme for AMR susceptibility
and control (IPC) Tajikistan.	3			
	P.3.4	Optimize use of anti- microbial medicines in human and animal health and agriculture	3	 Develop and implement legislation that restricts the sale and use of antimicrobials by farmers and veterinarians. Enforce existing legislation to ban the sale of antimicrobials for humans without prescription. Develop and implement guidelines for IPC in livestock production.

Technical	Indicator	 Indicator	Score	Priority Actions
areas Zoonotic	no. P.4.1	Coordinated surveil-		Strengthen multisectoral collaboration and com-
disease		lance systems in place in the animal health and public health sec- tors for zoonotic dis- eases/pathogens iden- tified as joint priorities	3	munication between public health, animal health, food safety and other relevant sectors through the organization of One Health workshops.
	540			 Raise awareness among the rural population about infectious diseases in animals, the need for their notification and vaccination.
	P.4.2	Mechanisms for responding to infectious and potential zoonotic diseases established and functional		 Ensure that farmers receive appropriate compensation when their animals are slaughtered after being infected with any of the infectious diseases that are listed as a priority for the country.
			3	 Establish an operational electronic information disease surveillance system in the animal health sector; ensure that the analogous public health system is fully functional at all levels; and that there is interoperability between both systems.
				 Revise and implement comprehensive joint action plans for the prevention and control of the priority zoonotic diseases following the restructuring of the surveillance system in the animal and human health sectors.
Food safety	P.5.1	in place for the detection and monitoring of foodborne diseases and food contamination	3	 Register the designated emergency contact point for the International Food Safety Authorities Network (INFOSAN) on the INFOSAN Community Website.
				 Finalize and endorse the draft national food safety strategy.
	P.5.2	Mechanisms are estab- lished and functioning for the response and management of food safety emergencies	2	 Strengthen the participation of the Republic of Tajikistan in Codex Alimentarius, including through the harmonization of national legislation and policy with Codex Alimentarius standards, guidelines and codes of practice.
Biosafety and bios- ecurity	P.6.1 Whole-of-government biosafety and biosecurity system in place for all sectors (including human, animal and	2	Strengthen the multisectoral body that coordinates biosafety and biosecurity activities in human and animal health sectors and across public and private facilities.	
	D.C.O.	agriculture facilities)		Grant licensing for laboratories and conduct monitoring activities of biosafety and biosecurity
	P.6.2	Biosafety and biosecu- rity training and prac- tices in all relevant sec- tors (including human, animal and agriculture)	3	 practices. Create a centralized inventory of dangerous pathogens and toxins and conduct monitoring activities of designated facilities.
				 Develop policy for using diagnostic tests to re- duce the cultivation of dangerous pathogens.
				 Ensure regular funding for biosafety and biosecurity training of staff in all relevant institutions.
Immuni- zation	P.7.1	(measles) as part of national programme	4	• Develop a joint resource mobilization plan of the MoHSPP and the Ministry of Finance (MoF) that ensures the maintenance of national routine immunization programmes.
	P.7.2 National vaccine access and delivery		 Improve the quality of immunization data by introducing a digital data collection system and establishing a common health database. 	
			4	 Strengthen the capacity of frontline health workers and epidemiologists on immune prophylaxis issues to improve the quality of the immunization services being provided.

Technical areas	Indicator no.	Indicator	Score	Priority Actions		
DETECT	DETECT					
detection of priority 3 transport of samples that	 Create a comprehensive national system for the transport of samples that includes transporta- tion means beyond vehicles and is supported by 					
dyotem	D.1.2	Specimen referral and transport system	2	standard operating procedures (SOPs) for speci- men collection, packaging, transport and track- ing of shipments.		
	D.1.3	Effective national diag- nostic network	3	Improve the reference laboratory system by defining:		
	D.1.4	Laboratory quality system	3	 pathogens for which reference testing is conducted; and core functions for reference laboratories. Establish a laboratory information system (LIS) that connects the whole microbiology testing process (and other types of tests in the future) with epidemiology surveillance units. Review and optimize the national laboratory system for the human health sector to increase the efficiency and cost-effectiveness of the tiered systems. 		
D.2.2 Use of electronic tools D.2.3 Analysis of surveillance data Analysis of surveillance data D.2.3 Conduct an external evaluation national surveillance system by assessment performed by WHG for improving the quality of surveillance or surveillance assessment performed by WHG for improving the quality of surveillance system by the for improving the quality of surveillance system by the for improving the quality of surveillance system by the for improving the quality of surveillance system by the for improving the quality of surveillance system by the for improving the quality of surveillance and private LIS and cover lance needs. Systematically introduce event-lance (EBS) at all administrative data by conducting training in formational surveillance system by the for improving the quality of surveillance and private LIS and cover lance needs. Systematically introduce event-lance (EBS) at all administrative data by conducting training in formational surveillance and private LIS and cover lance needs. Increase capacity for analysis of data by conducting training in formational surveillance and private LIS and cover lance needs. The public and private LIS and cover lance needs. Systematically introduce event-lance (EBS) at all administrative data by conducting training in formation and private LIS and cover lance needs.	D.2.1	Surveillance systems	3			
	D.2.2	Use of electronic tools	3	lance (EBS) at all administrative levels. • Increase capacity for analysis of surveillance		
	 Conduct an external evaluation of the overall national surveillance system building on the assessment performed by WHO in May 2019 for improving the quality of surveillance for out- 					
Reporting	D.3.1	System for efficient reporting to the Food and Agriculture Orga- nization (FAO), World Organization for Animal Health (OIE) and WHO	1	 break-prone and high threat pathogens. Establish and train a World Animal Health Information System (WAHIS) NFP. Continue to develop and implement protocols and procedures for reporting a potential public health emergency of international concern (PHEIC) to WHO, FAO and OIE. 		
	D.3.2	Reporting network and protocols in country	2	 Strengthen the coordination between the human and animal health sectors at all levels in order to facilitate the multisectoral response to a potential PHEIC for relevant zoonotic diseases. Conduct a multisectoral simulation exercise for the response to a potential PHEIC for a relevant zoonotic disease in order to train on the use of protocols and procedures. 		

Technical areas	Indicator no.	Indicator	Score	Priority Actions
Human resources (animal	D.4.1	An up-to-date multi- sectoral workforce strategy is in place	3	Converge the curricula of the human and animal health faculties by applying the One Health ap- proach.
and hu- man health	D.4.2	Human resources are available to effectively implement IHR	3	 Promote the development and use of joint courses for professionals from the human and animal health sectors.
sectors)	D.4.3	In-service training is available	3	• Strengthen academic research in the veterinary sector by, for example, supporting research proj-
	D.4.4	Field epidemiology training programme (FETP) or other applied epidemiology training programme in place	. 3	ects focused on the One Health approach. • Provide modules of the FETP to medical doctors, epidemiologists and other health workers as part of the continuing professional education programme and enrol non-medical health professionals in the existing FETP.
RESPOND				
Emer- gency Prepared- ness	risk assessments conducted and emergency resources identified and mapped R.1.2 National multi-sectoral multi-hazard emergency gency preparedness measures, including National multi-sectoral multi-sectoral multi-hazard emergency preparedness measures, including National multi-sectoral multi-sectoral multi-sectoral multi-hazard emergency resources. National multi-sectoral multi-sectoral multi-sectoral multi-hazard emergency resources. National multi-sectoral multi-	 Strengthen intersectoral committees tasked with writing interdisciplinary protocols, SOPs and checklists for all threats, and test them through exercises. Designate and implement a separate budget 		
		line for preparedness activities according to an analysis of threats and in order to finance training and adequate medical equipment, infrastructures and other resources. • Use volunteers for surge capacity to counter the		
Emer- gency	R.2.1	Emergency response coordination	4	Conduct tabletop exercises on emergency response, focusing particularly on existing proce-
response opera- tions	R.2.2	Emergency operations centre (EOC) capacities, procedures and plans	4	dures for receiving international assistance. • Conduct exercises on emergency management, particularly targeting medical personnel.
	R.2.3	Emergency Exercise Management Pro- gramme	4	 Increase the level and complexity of exercises on emergency management over time. Develop and implement policy decisions and interventions to improve response activities informed by the lessons learned from after action reviews (AARs) of past emergencies.
Linking public health and se- curity au- thorities	R.3.1	Public health and se- curity authorities (e.g. law enforcement, bor- der control, customs) linked during a suspect or confirmed biological, chemical or radiologi- cal event	4	 Organize training for public health authorities on security issues in relation to biological, chemical and radiation events. Develop SOPs for information sharing across sectors in the response to public health threats. Organize simulation exercises at national and local levels with international assistance. Improve communication techniques, protection equipment and procedures for public health workers.

Technical areas	Indicator no.	Indicator	Score	Priority Actions
Medical counter- measures and per- sonnel deploy- ment	R.4.1	System in place for activating and coordi- nating medical coun- termeasures during a public health emer- gency	3	 Identify health care facilities and equipment to ensure adequate first response to mass casualty events. Develop case management guidelines for all IHR-related hazards. Conduct training on tabletop exercise methodol-
	R.4.2	System in place for activating and coordi- nating health personnel during a public health emergency	3	ogy. • Conduct tabletop exercises on deployment of medical countermeasures for all IHR-related hazards at points of entry (PoE), particularly at ground crossings.
	R.4.3	Case management procedures imple- mented for IHR relevant hazards	4	
Risk com- munica- tion	R.5.1	Risk communication systems for unusual/ unexpected events and emergencies	nusual/ tral component of the public health emerg	 Incorporate the eGovernment concept as a central component of the public health emergency communications strategy to enhance Internet connectivity, particularly in rural areas.
	R.5.2	Internal and partner coordination for emer- gency risk communica- tion	4	 Develop a risk communications training programme for all relevant government actors. Create a systematic approach to scanning and tracking rumours, integrating communications
	R.5.3	Public communication for emergencies	3	and EBS functions for early detection and monitoring.
	R.5.4	Communication engagement with affected communities	3	
	R.5.5	Addressing perceptions, risky behaviours and misinformation	2	
IHR-RELA	TED HAZ	ARDS AND POINTS	OF EN	ITRY
Points of entry	PoE.1	Routine capacities es- tablished at PoE	2	Review the list of officially designated PoE, limiting to PoE that are more relevant according to
	PoE.2	Effective public health response at PoE	2	 the volume of international trade and travel and the epidemiological risk. Integrate all public health emergency contingency plans for designated PoE into a national emergency plan. Train sanitary personnel working at PoE in the legal nature and requirements of the IHR (2005). Clarify communication and coordination procedures between all relevant sectors involved in the response to an emergency at PoE and test them through simulation exercises.

Technical areas	Indicator no.	Indicator	Score	Priority Actions
Chemical events		 Expand environmental and agricultural monitoring and investigation. Strengthen laboratory capacity, especially with respect to agricultural petrochemicals and unknown substances. 		
	CE.2	Enabling environment in place for manage- ment of chemical events	5	 Reassess the national list of approved chemicals. Develop a poison control centre for the Republic of Tajikistan or in concert with neighbouring countries.
Radiation emergen- cies	RE.1	Mechanisms estab- lished and functioning for detecting and re- sponding to radiologi- cal and nuclear emer- gencies	3	• Establish a joint coordination platform for the sectors of human health, animal health and the environment to systematically engage with authorities from the Nuclear and Radiation Safety Agency and the CoES on radiation hazards, events and emergencies.
	RE.2	Enabling environment in place for manage- ment of radiological and nuclear emergen- cies	4	Organize a tabletop and a simulation exercise on radiation-related health emergencies with the participation of health professionals from risk- prone regions.

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

PREVENT

NATIONAL LEGISLATION, POLICY AND FINANCING

INTRODUCTION

The 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

The Republic of Tajikistan has a robust legislative framework in place which enables the implementation of the IHR (2005) in the country. This framework is composed of relevant national laws, decrees and ministerial orders in the areas of human and animal health, food security and emergency situations that comply with the requirements of the IHR (2005). The first national review of legislation for the implementation of the IHR (2005) took place in 2009.

The MoHSPP is the competent body to formulate health policy. The current National People's Health Strategy of the Republic of Tajikistan covers the period 2010–2020. This document does not explicitly reference the IHR (2005). Nonetheless, the Health Code of the Republic of Tajikistan adopted in 2017 includes implicit references to IHR obligations related to the control of epidemics and the protection of the health of the population, among others.

The governance and legislative functions of the Republic of Tajikistan are usually delivered through a top-down approach, from the national to the regional (oblast) and local levels. However, if a national public health emergency or a PHEIC is declared, the MoHSPP can initiate action directly from the local level upward.

The allocation of resources to the health sector is centralized, decided upon by the MoF of the Republic of Tajikistan and governed by a regulatory framework. Furthermore, funds for the prevention and control of epidemics can be made available through the Republican Emergency Anti-Epidemic Commission, established in 2004 and composed of national representatives from 15 relevant ministries and committees.

The earmarked state financing is not stipulated for the implementation of the IHR (2005). Funds for IHR-related activities are accessed through several budget lines. These include the epidemiological fund under the MoHSPP, which is assigned by the MoF of the Republic of Tajikistan based on yearly budget plans submitted by the MoHSPP and on the recommendations of the Republican Emergency Anti-Epidemic Commission, funds of the MoA; as well as funds of the FSC assigned to animal health activities. In addition, funding is available at regional and local levels for IHR-related activities such as outbreak investigation.

No distinction was found between funding available for IHR implementation and for response to public health emergencies. Financing for both areas comes from the same budget lines and is allocated on the basis of need. Given the limited financial capabilities of the country, the availability of sustainable funding for the implementation of the IHR (2005) remains a challenge.

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

- Regulations for emergency response activities exist at local, regional and national levels, as well as across borders with neighbouring countries.
- The IHR NFP is designated at Deputy Ministerial level at the MoHSPP by ministerial decree.

Areas that need strengthening and challenges

- The legal status, mandate and functions of the IHR NFP should be specified and included in the Health Code of the Republic of Tajikistan.
- There is a need to strengthen and formalize intersectoral cooperation for the implementation of the IHR (2005), including through the harmonization of legislation across sectors.
- Explicit references to the IHR (2005) should be included in the post-2020 national health strategy.
- Knowledge of the IHR (2005) as an international treaty and its legal requirements should be promoted among all relevant stakeholders and across all relevant sectors.
- National legislation for the implementation of the IHR (2005) at PoE should be reviewed and updated accordingly.

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

Strengths and best practices

- Financing for IHR implementation and response is made available through several budget lines, such as the epidemiological fund at the MoHSPP.
- Funds for zoonosis control and monitoring can be used both for preventive measures as well as for emergency response activities.

Areas that need strengthening and challenges

- Funding for IHR implementation should be allocated under a separate item within the state budget.
- An intersectoral cooperation mechanism for IHR implementation should be in place to enable joint mobilization of financial means and other resources.

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

Strengths and best practices

- In the event of a public health emergency at local level, funding for response activities can be made available from the local level upward to the regional and national levels.
- The majority of funds for timely response to public health emergencies can be mobilized through internal mechanisms.
- In case of a large-scale emergency such as a natural disaster, funds for health response activities can be made available through the CoES.

Areas that need strengthening and challenges

 Available financing mechanisms for all-hazard emergency response measures should be reviewed across all relevant sectors to ensure coherence in health action.

Recommendations for priority actions

- Amend the Health Code of the Republic of Tajikistan to include the legal status, structure and functions of the IHR NFP.
- Update the review of national legislation to ensure that IHR requirements are adequately embedded in relevant laws, ministerial decrees and policies.
- Allocate an adequate budget line for the implementation of all IHR capacities and increase funding related to IHR activities in all sectors.

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 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

In the Republic of Tajikistan, intersectoral coordination mechanisms for the implementation of the IHR (2005) are established and functioning for the response to public health emergencies or other type of emergencies with public health consequences. Nonetheless, their functionality is less apparent when conducting routine IHR capacities during peacetime.

The designated IHR NFP in the Republic of Tajikistan is the Deputy Minister of Health and Social Protection of the Population, who also holds the position of Chief State Sanitary Doctor and Head of Department for Sanitary and Epidemiological Security, Emergency Situations and Emergency Medical Care at the MoHSPP.

At the national level, an Intersectoral Coordination Committee has been established under the MoHSPP to develop action plans and guidelines for strengthening coordination across sectors, with the participation of all relevant stakeholders, including the MoHSPP, the CoES, the Academy of Sciences of the Republic of Tajikistan and the FSC under the Government of the Republic of Tajikistan. Disease-specific programmes (such as HIV, tuberculosis (TB) and vaccine-preventable diseases) are coordinated by the National Coordination Mechanism of the Global Fund, which has established seven technical working groups for laboratories and IPC, among other various areas. Laboratories under the MoHSPP are coordinated by the National Coordination Committee on Laboratories.

Nonetheless, multisectoral coordination at all levels needs to be strengthened, including through the IHR NFP playing a stronger role to fully meet the legal requirements. Furthermore, overall awareness about the IHR (2005), including coordination requirements and the role of the IHR NFP, is very limited among different departments within the MoHSPP and across relevant stakeholders from other sectors.

Given the multiple functions which the designated IHR NFP is responsible for, there is a risk that the overwhelming workload limits the amount of time available to conduct routine IHR coordination activities. Furthermore, IHR NFP functions, including notification, have never been tested through simulation exercises with the participation of representatives from all relevant ministries, departments and committees.

In the response phase to a large-scale emergency or in the event that a high threat pathogen is suspected; overall coordination is carried out by the Commissions for Emergency Situations under the CoES. These structures exist at all administrative levels: local, territorial, regional (oblast), national and cross-border. However, in the specific case of a large-scale public health emergency, including a zoonotic case, an Emergency Anti-Epidemic Commission is established within the CoES at the respective administrative level and in accordance with the Order No. 648 "On Emergency Anti-Epidemic Commission of the Republic of Tajikistan".

These commissions are chaired by the head of the civil defense authority at the respective administrative level, and composed of representatives from various sectors and levels, depending on the nature and scale of the emergency. They perform regular situation reviews of investigations and produce a summary at the end. Representatives of these commissions are present at some PoE.

In public health emergencies that are not considered of large-scale or where there are no suspected high threat pathogens, response activities are coordinated by the respective branch of the Department for Sanitary and Epidemiological Security, Emergency Situations and Emergency Medical Care at the MoHSPP. Rapid response teams (RRTs) consist of an epidemiologist, a laboratory expert, a clinician/infectionist and a communication officer from the respective administrative level, who are deployed to respond to the outbreak upon receipt of notification.

In the event of a public health emergency, communication mechanisms are in place to notify the superior administrative level in a timely manner and activate control and response measures at the respective levels and as appropriate. If a high threat pathogen is suspected, it is reported to the Department for Sanitary and Epidemiological Security, Emergency Situations and Emergency Medical Care at the MoHSPP immediately. A responsible officer is on duty 24/7 at the aforementioned department.

Indicators and scores

P.2.1 A functional mechanism established for the coordination and integration of relevant sectors in the implementation of IHR – Score 2

Strengths and best practices

- Multisectoral collaboration mechanisms are in place during the response to an emergency of all types, including a public health emergency.
- Legislation is in place that regulates coordination between stakeholders in times of crises.
- A high-level Intersectoral Coordination Committee has been established.
- Comprehensive action plans have been developed jointly between MoHSPP and MoA for the prevention and control of selected zoonotic diseases, such as TB, rabies, anthrax and brucellosis.

Areas that need strengthening and challenges

- National legislation needs to be strengthened to ensure that the IHR NFP has the legal mandate to conduct effective intersectoral coordination in accordance with the requirements of the IHR (2005).
- SOPs should be developed to enable coordination between the IHR NFP and other relevant sectors, particularly during peacetime.
- Stakeholders across relevant sectors and beyond health need to be adequately informed about the IHR (2005) and their roles and responsibilities including multisectoral coordination.
- Emergency response coordination should be tested through simulation exercises.
- The designated IHR NFP for the Republic of Tajikistan needs to be strengthened with sufficient human resources to ensure that IHR requirements are being adequately met, in balance with the extensive workload of the Deputy Minister of Health and Social Protection of the Population.

- An up-to-date address directory with contact information for all members of the IHR NFP should be made available.
- Contact points at other relevant agencies, such as the FSC or the CoES, should be made available.
- Improved cooperation and collaboration is needed between the Department for Sanitary and Epidemiological Security, Emergency Situations and Emergency Medical Care at the MoHSPP, the disease-specific programmes for HIV, TB and vaccine preventable diseases (VPDs), the FSC and other relevant sectors to align efforts and avoid duplications and conflicting messages.

Recommendations for priority actions

- Develop operational procedures for intersectoral coordination and exchange of information on IHR implementation between the IHR NFP and other sectors, including through the designation of contact persons in relevant institutions.
- Raise awareness about the IHR (2005) and the NFP functions across all relevant stakeholders including within the MoHSPP.
- Conduct regular simulation exercises to train and test IHR NFP functions, including that of multisectoral coordination.
- Enhance the human resources capacity of the designated IHR NFP, including through the appointment of (a) staff member(s) responsible solely for the implementation of IHR-related functions.

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. AMR 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 AMR with a One Health approach, including:

- 1) 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.
- 2) 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 OIE global database on use of antimicrobial agents in animals.
- 3) Prevention of AMR in health care facilities, food production and the community, through IPC measures.
- 4) 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

There is high-level commitment across government departments in the Republic of Tajikistan to combat AMR. In 2016, an intersectoral and interagency working group was established under the coordination of the Department for Sanitary and Epidemiological Security, Emergency Situations and Emergency Medical Care at the MoHSPP. The working group led the development of the National Acton Plan to Tackle AMR in the Republic of Tajikistan, which was endorsed in 2018 by the Minister of Agriculture, the Minister of Health and Social Protection of the Population and the Chairman of the FSC under the Government of the Republic of Tajikistan.

Some surveillance for the detection of AMR in humans is being conducted by hospital-based laboratories in the Republic of Tajikistan. Four hospitals conduct proof-of-principle AMR routine diagnostics surveillance based on a list of priority pathogens identified for susceptibility testing. Surveillance data from the human health sector is publicly available. The Republic of Tajikistan reports to the Central Asian and Eastern European Surveillance of Antimicrobial Resistance (CAESAR) and to the European AMR network, which in turn participates in the GLASS. Priority pathogens for surveillance of AMR have also been identified in the animal health sector although surveillance for AMR in animals is considered minimal. Expansion of AMR surveillance into the animal health, food safety and environment sectors as well as compilation and analysis of AMR data would contribute to the identification of broader AMR issues in the country.

In 2014, National Guidelines for the Prevention of Infections in Medical Facilities of the Republic of Tajikistan were approved by an order of the MoHSPP and supported by a professional development programme for medical workers. Selected health care facilities implement the guidelines with monitoring and feedback in place. Measures and guidelines for infection, prevention and control in the livestock and agriculture sectors are yet to be developed.

In the human health sector, guidelines for the use of antimicrobials have been developed. However, there is limited monitoring of their implementation and antimicrobials are generally accessible by consumers without prescription. The antibiotic awareness week and other ongoing consumer information activities promote prudent use of antimicrobials. There are no restrictions on the use of antimicrobials in livestock production and antimicrobials can be purchased by farmers without prescription.

Indicators and scores

P.3.1 Effective multi-sector coordination on AMR - Score 4

Strengths and best practices

- The National Action Plan to Tackle AMR in the Republic of Tajikistan is aligned with the GAP on AMR and outlines strategic interventions across sectors.
- The Intersectoral and Interagency Working Group serves as a multisectoral coordination mechanism to prevent and control AMR and meets regularly.

Areas that need strengthening and challenges

- Priorities, commitment and budget allocation for the implementation of the National Action Plan
 to Tackle AMR in the Republic of Tajikistan should be aligned across members of the Intersectoral
 and Interagency Working Group.
- A mechanism and indicators for monitoring the implementation of the above-mentioned national action plan need to be established to review progress and adjust implementation priorities accordingly.
- Financial independence from external funding to implement the above-mentioned national action plan should be strengthened.

P.3.2 Surveillance of AMR - Score 3

Strengths and best practices

- A national reference laboratory exists, and four hospital-based laboratories conduct susceptibility testing for AMR.
- The Republic of Tajikistan participates in the CAESAR External Quality Assessment (EQA) exercise. In 2016 four out of five laboratories returned results within the required four-week timeframe.

Areas that need strengthening and challenges

- A laboratory quality assurance system for AMR should be implemented.
- AMR surveillance needs to be expanded across the animal health, food safety and environment sectors
- AMR data should be published and actively used to inform policy and intervention priorities.
- Antimicrobial use and consumption should be monitored in the health sector as well as in the agriculture and livestock sectors, and AMR and antimicrobial usage and consumption surveillance data should be linked for both humans and animals.

P.3.3 IPC - Score 2

Strengths and best practices

- National Guidelines for the Prevention of Infections in Medical Facilities of the Republic of Tajikistan are available.
- Local plans for IPC in health care facilities have been developed.
- A professional development programme for medical workers is in place.

Areas that need strengthening and challenges

- IPC measures for the livestock and agriculture sectors need to be developed and implemented, including the strengthening of the animal vaccination programme.
- Food hygiene and handling practices of animals and meat in slaughterhouses and meat processing plants should be improved.
- The monitoring of IPC programmes and their outcomes/impact in health care settings and livestock facilities needs to be strengthened.

P.3.4 Optimize use of antimicrobial medicines in human and animal health and agriculture – Score 3

Strengths and best practices

- Legislation that restricts the sale of antimicrobials to humans without prescription is in place and guidelines for the use of antimicrobials in human health have been developed.
- Registration and quality checks are in place for imported antimicrobials.
- Restrictions are in place on the use of antimicrobials for some diseases (e.g. TB).

Areas that need strengthening and challenges

- Existing legislation should be enforced to avoid the sale of antimicrobials for humans without prescription.
- The control and monitoring of the distribution and supply of antimicrobials for use in the human and animal health sectors needs to be improved.
- Legislation to restrict the sale of antimicrobials for animals to farmers without prescription should be developed and implemented.

Recommendations for priority actions

- Improve the system for epidemiological and laboratory-based surveillance and reporting for AMR in both animal and human health sectors.
- Expand the programme for AMR susceptibility testing to hospitals throughout the Republic of Tajikistan.
- Develop and implement legislation that restricts the sale and use of antimicrobials by farmers and veterinarians.
- Enforce existing legislation to ban the sale of antimicrobials for humans without prescription.
- Develop and implement guidelines for IPC in livestock production.

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 multisectoral, multidisciplinary mechanisms, policies, systems and practices are in place to minimize the transmission of zoonotic diseases from animals to human populations.

LEVEL OF CAPABILITIES

Adequate capacity for surveillance of zoonotic diseases exists in both human and animal health sectors.

The MoHSPP and the FSC under the Government of the Republic of Tajikistan have jointly identified a list of six priority zoonotic diseases of national public health concern, which include brucellosis, anthrax, TB, rabies, Crimean Congo haemorrhagic fever (CCHF), and cystic and alveolar echinococcosis. Furthermore, comprehensive action plans have been developed jointly by the MoHSPP and the MoA for the prevention and control of selected zoonotic diseases (TB, rabies, anthrax and brucellosis) for the period 2012–2020.

A legal framework is in place, regulated by Decision No. 487 of 2011 of the Government of the Republic of Tajikistan on the "Establishment of a fund for action on epizootic events and approval of its regulations". However, no contingency plans exist beyond the instructions outlined in various decrees. These plans should be elaborated, compiled and peer-reviewed. Once in place, they should be tested through simulation exercises.

Funding for anti-epizootic measures is limited, and an adequate compensation regime does not exist, which undermines incentives for farmers to report suspected diseases.

Epidemiological surveillance of the animal population is conducted by the FSC, which employs 1372 state veterinary doctors and 425 laboratory specialists. These are part of the laboratory network of the veterinary sector, which consists of the National Center for Food Security Diagnostics (NCFSD), located in Dushanbe and 22 subordinated laboratories across the country (3 regional and 19 district and interdistrict diagnostic centres). Epidemiological surveillance of zoonotic diseases in the human population is conducted by the Department for Sanitary and Epidemiological Security, Emergency Situations and Emergency Medical Care of the MoHSPP.

The Intersectoral Coordination Committee under the MoHSPP coordinates the implementation of surveillance and response policies at the high political level, and approves guidelines and action plans for priority zoonotic diseases.

In case of a zoonotic public health emergency, the aforementioned Department of the MoHSPP, the FSC, the CoES, local authorities (hukumat), and other relevant institutions work together under the coordination of the Emergency Anti-Epidemic Commission, which is activated by the CoES. If a zoonotic disease is confirmed by the Department for Sanitary and Epidemiological Security, Emergency Situations and Emergency Medical Care of the MoHSPP, the emergency notification is rapidly sent to the FSC.

Information regarding any simulation exercises conducted to strengthen the capabilities of both human and animal health sectors to respond to a PHEIC of zoonotic nature was not shared during the JEE discussions.

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 3

Strengths and best practices

- A list of priority zoonotic diseases has been developed jointly by the human and animal health sectors; the list includes TB, rabies, anthrax, brucellosis, CCHF, cystic and alveolar echinococcosis.
- Epidemiological surveillance is conducted for the priority infectious diseases by both the human and animal health sectors; surveillance data is shared between the two.
- The animal health sector conducts passive and active surveillance at district level and the results are compiled at national level.

Areas that need strengthening and challenges

- Surveillance coordination should be strengthened across the human health, animal health and food safety sectors.
- An adequate compensation system should be put in place for the owners of animals that are slaughtered after being infected with any of the infectious priority diseases, with the aim to encourage reporting and limit their spread.
- Electronic reporting should be made available both in the animal and human health sectors.
- A national information technology system for the collection, processing and reporting of data in the animal health sector should be put in place, and the use of District Health Information System 2 (DHIS2) software strengthened within the human health sector.
- Access to computers and continuous Internet connection should be improved in both human and animal health sectors, especially at local level.
- The capability to conduct epidemiological analysis and design epidemiological studies in the human and animal health sectors should be improved.
- A system for the registration and identification of animals should be established.

P.4.2 Mechanisms for responding to infectious and potential zoonotic diseases established and functional – Score 3

Strengths and best practices

- Comprehensive action plans have been developed jointly by the MoHSPP and the MoA for the prevention and control of selected zoonotic diseases (TB, rabies, anthrax, brucellosis) for 2012–2020.
- The Department for Sanitary and Epidemiological Security, Emergency Situations and Emergency Medical Care of the MoHSPP, the FSC, the CoES, local authorities (hukumat), and other institutions work together in the public health response to zoonotic emergencies, under the overall coordination of the Emergency Anti-Epidemic Commission.

Areas that need strengthening and challenges

- Coordination of the emergency response to a PHEIC of zoonotic nature should be regularly tested through simulation exercises.
- Joint action plans for the prevention and control of selected zoonotic diseases (TB, rabies, anthrax, brucellosis, CCHF and echinococcosis) should be implemented and reinforced at all administrative levels to fully meet the requirements of the IHR (2005).
- Both human and animal health sectors should have an adequate number of qualified specialists.
- An adequate number of incinerators for the safe disposal of infected animals should be in place, particularly in cities.
- The FSC should have mandate over the control of stray dog populations in cities as part of the programme for rabies control.
- Contingency plans for the response to zoonotic diseases should be in place.

Recommendations for priority actions

- Strengthen multisectoral collaboration and communication between public health, animal health, food safety and other relevant sectors through the organization of One Health workshops.
- Raise awareness among the rural population about infectious diseases in animals, the need for their notification and vaccination.
- Ensure that farmers receive appropriate compensation when their animals are slaughtered after being infected with any infectious disease, listed as priority for the country.
- Establish an operational electronic information disease surveillance system in the animal health sector; ensure that the analogous public health system is fully functional at all levels; and that there is interoperability between both systems.
- Following the restructuring of the surveillance system in the animal and human health sectors, revise and implement comprehensive joint action plans for the prevention and control of the priority zoonotic diseases.

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

Food safety is a key priority for the Government of the Republic of Tajikistan. It is included as one of the four strategic development objectives of the National Development Strategy of the Republic of Tajikistan to meet by 2030. Food safety is also included as a key component in the National Health Strategy of the Republic of Tajikistan 2010–2020 to address health determinants and form healthy lifestyles.

The Law of the Republic of Tajikistan on the Quality and Safety of Food of 2012, together with a large number of subordinate regulations and decrees, form a comprehensive legal basis for food safety in the country.

In 2017, the FSC was established under the Government of the Republic of Tajikistan as a central body performing special executive, supervising and coordinating functions for food security (including food safety). In addition, the multisectoral Food Safety Council coordinates work pertaining specifically to food safety. The council will be the responsible body overseeing the development and implementation of the Food Safety Strategy, which is expected to be finalized by the end of 2019. This strategy aims to ensure food safety for the better protection of consumer health, the further development of national agriculture and food production, and the promotion of agriculture and food export.

The Republic of Tajikistan takes a disease-specific approach to surveillance, risk assessment and response to disease outbreaks and public health emergencies. Surveillance focuses on a list of notifiable diseases which includes food poisoning and intoxication. Treatment guidelines are available for each notifiable disease.

Detection of foodborne diseases is reported to the district branch of the Department for Sanitary and Epidemiological Security, Emergency Situations and Emergency Medical Care at the MoHSPP, which compiles surveillance data and submits it to the regional level and eventually to the central level of the above-mentioned department. Reports are available, but they were not shared with the external evaluation team during the JEE. Monitoring of food contamination in fresh products is carried out by the Food Safety Council. 65 laboratories conduct veterinary-sanitary surveillance of food in markets in support of food inspection services.

The national Codex Alimentarius Contact Point is also based at the MoHSPP and the National Codex Alimentarius Committee serves as a multisectoral mechanism for information sharing and coordination across ministries and departments working in the area of food safety. The Republic of Tajikistan is not a member of INFOSAN and there are no SOPs for communication between the Republic of Tajikistan and other countries regarding food safety incidents and emergencies.

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

- Existing laws and regulations form a good legal foundation for food safety prevention and control.
- The multisectoral Food Safety Council serves as a mechanism for coordination and collaboration across sectors involved in food safety-related work, including food safety emergencies.
- An indicator-based surveillance and response system for detection of and response to foodborne disease outbreaks and food poisoning has been established.
- Foodborne disease outbreaks are regularly reported from the sub-national to the national level and results are compiled and analysed.
- Appropriate laboratory capacity at national level to analyse human specimens and food samples is in place.

Areas that need strengthening and challenges

- Foodborne disease surveillance, risk assessment and response should be strengthened through an all-hazards approach and with a view to develop estimates for the national burden of foodborne diseases.
- Food testing capacity at sub-national level should be improved including sampling procedures, analytical methods and human resources to better investigate and respond to food safety incidents and emergencies.
- Collaboration between relevant agencies under the MoHSPP, the FSC and the MoA in the response to food safety incidents and emergencies should be enhanced.
- Participation in Codex Alimentarius and harmonization of national policy and legislation with Codex Alimentarius standards, guidelines and codes of practice should be improved.
- SOPs for bacteriological laboratories on pathogen identification and their antimicrobial susceptibility testing methods and interpretation needs to be updated.

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

Strengths and best practices

- Informal procedures for communication among relevant stakeholders during food safety emergencies have been established.
- An inspection system has been established for food products of animal origin.
- Informal arrangements for communication with main trading partners in food safety emergency situations are available.

Areas that need strengthening and challenges

- An INFOSAN emergency contact point needs to be officially designated and registered on the INFOSAN Community Website and consideration should be given to the designation of INFOSAN Focal Points in relevant government agencies.
- SOPs for communication between the IHR NFP and the designated INFOSAN emergency contact point should be established.
- Formal procedures for food safety emergency response need to be established, including national and international communication strategies, operational and logistical arrangements and evaluation and monitoring mechanisms.

Recommendations for priority actions

- Register the designated INFOSAN emergency contact point on the INFOSAN Community Website.
- Finalize and endorse the draft National Food Safety Strategy.
- Strengthen the participation of the Republic of Tajikistan in Codex Alimentarius, including through the harmonization of national legislation and policy with Codex Alimentarius standards, guidelines and codes of practice

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

The Republic of Tajikistan adopted in 2005 a "Law on biosafety", which also covers the area of biosecurity. Nonetheless, this law needs to be updated to support a whole-of-government approach to biosafety and biosecurity. National legislation should address the challenge of dual use research of concern and include a code of conduct for scientists, given that there are a total of nine research institutes belonging to the human, veterinary and phytosanitary sectors across the country. In addition, a system for the monitoring and licensing of laboratories does not exist.

Order No. 5 issued by the MoHSPP regulates the list of dangerous pathogens and toxins, the appropriate management of waste, and the transport of infectious substances. This order is, however, not used in practice. The Republic of Tajikistan does not have designated facilities for the collection of dangerous pathogens and toxins. The Biological Safety Institute has a storage of dangerous pathogens, which is used by the veterinary sector for priority zoonotic diseases such as brucellosis or avian influenza, among others.

Varying levels of biosafety are found across the Republic of Tajikistan. Biosafety level (BSL) 2 and 3 facilities are in place in some laboratories. However, others have insufficient safety practices that may pose biosafety risks, particularly in rural areas. There are plans to renovate facilities and increase the level of biosafety in certain laboratories by 2025. Laboratories of the veterinary sector have been renovated and equipped recently. Nonetheless, there is still a lack of records and protocols for biosafety and biosecurity issues.

Reference laboratories for HIV and TB participate in external assessment programmes together with food safety laboratories. Veterinary sector laboratories are certified according to International Organization for Standardization (ISO) standards, but these certificates should be renewed by the new institution

TajikStandard. The NCFSD is accredited according to ISO 17025, and the Biological Safety Institute has a certificate for ISO 17065-2013.

The Training Centre for Biosafety was established in 2014 and since then it is used as an educational centre to compensate for the lack of education on biosafety in the pre-service curriculum.

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

- National legislation exists in the area of biosafety and biosecurity, waste management and transport for all types of laboratory samples.
- The Tajik laboratory system includes facilities with BSL 2 and BSL 3 that are appropriately equipped in both the human and veterinary sectors.
- The NCFSD is accredited according to ISO 17025.

Areas that need strengthening and challenges

- Biosafety and biosecurity license conditions, including monitoring practices for laboratories, should be developed.
- Biosecurity and dual use research of concern must be included into the new law, which is under development.
- SOPs, manuals and records on biosafety in laboratory management should be developed.
- The level of biosafety practices should be strengthened to address imbalances between laboratories belonging to different tier systems across the country.
- A policy to keep dangerous pathogens and toxins should be developed, and facilities designated for such purposes.

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

Strengths and best practices

- The Republic of Tajikistan has conducted a comprehensive needs assessment for biosafety and biosecurity training, on the basis of which a National Training Centre was established. The centre has become a "training base" not only for the Republic of Tajikistan but also for neighbouring countries.
- The aforementioned centre conducts regular biosafety training for different laboratory professionals with different durations and evaluations of knowledge uptake.

Areas that need strengthening and challenges

- Biosafety and biosecurity should be included in the academic curricula of health professionals to
 ensure that the young workforce has an appropriate set of skills from the moment that they start
 to work in laboratories.
- A training-of-trainers and a biosafety and biosecurity training should be conducted in all laboratories of all sectors.
- Awareness of staff on biosecurity and the misuse of pathogens and toxins should be raised.
- Sustainable funding should be ensured to cover all training needs in laboratories, especially in the Training Centre for Biosafety.

Recommendations for priority actions

- Strengthen the multisectoral body that coordinates biosafety and biosecurity activities in human and animal health sectors and across public and private facilities.
- Grant licensing for laboratories and conduct monitoring activities of biosafety and biosecurity practices.
- Create a centralized inventory of dangerous pathogens and toxins and conduct monitoring activities of designated facilities.
- Develop policy for using diagnostic tests to reduce the cultivation of dangerous pathogens.
- Ensure regular funding for biosafety and biosecurity training of staff in all relevant institutions.

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 VPDs. Countries will also identify and target immunization to populations at risk of other epidemic-prone VPDs 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

In the Republic of Tajikistan, the NIP for 2016–2020 was approved by the MoHSPP as per Order No. 456 of 2016. The NIP is aligned with the WHO Global and Regional Vaccine Action Plan. Vaccination according to the national calendar is compulsory and free. However, zoonotic infections are not included into the NIP.

The Centres for Immunoprophylaxis at the national Republican Centre of Immunoprophylaxis (RCIP), regional and district levels provide the main managerial and operational functions for the implementation of the NIP. Other functions of the RCIP include the development of immunization policies and strategies; the monitoring of immunization and prevalence of VPDs; the storage and distribution of vaccines; and the overall management of immunization programmes at the national level. RCIP has its own budget and is subordinated to the MoHSPP of the Republic of Tajikistan.

Over the past 5 years, the NIP has had three main sources of funding: The Government of Tajikistan; Gavi, the Vaccine Alliance; and the Government of Japan. The share of governmental expenditure of the Republic of Tajikistan on the procurement of vaccines has increased in recent years, from less than 20% in 2015 to 29.4% in 2019. Nonetheless, reducing the dependency on external funding and ensuring financial sustainability for vaccination remains a challenge.

International organizations have also contributed largely to the national expanded programme on immunization (EPI) since its inception, being Gavi the main donor. All children's EPI vaccines are procured centrally with the support of the United Nations International Children's Emergency Fund (UNICEF) and distributed to all health centres through the Centres for Immunoprophylaxis at regional and district levels. All EPI vaccines being used are quality-assured, as only WHO prequalified vaccines are procured. With the support of Gavi and the Cold Chain Equipment Optimization Platform grants, there are plans to strengthen the cold chain at all levels.

A strong coordination mechanism is in place to ensure the availability of vaccines and an adequate management of stocks at all administrative levels. The RCIP has six branches across the country which are responsible for the management of the NIP at regional (oblast) and local levels. Overall, immunization services are provided by around 3000 medical facilities, including medical and health houses, polyclinics, maternity services and rural hospitals. The tracking system for supply chain management is paper-based only, and plans are ongoing to introduce dashboard software with the support of UNICEF to monitor the number of available antigen doses and supply items.

The NIP has historically functioned in isolation from the provision of other health services in the country, with ad-hoc systems of procurement and logistics, national level dedicated staff and its own funding line, planning and information systems. Nonetheless, some of its functions are integrated into the overall health system, such as service delivery and VPD surveillance. Yet, RCIP still remains a highly vertical-functioning institution.

The current national immunization calendar includes ten vaccines. High vaccination coverage (95% or above) has been reported for all vaccines included into the national immunization calendar. There are plans to switch from the measles, rubella (MR) vaccine to the measles, mumps, rubella (MMR) vaccine in 2021 and introduce the pneumococcal conjugated (PVC) vaccine and the human papillomavirus (HPV) vaccine in 2022 and 2024, respectively.

There is a relatively low level of reluctance to or refusal of vaccination of children, most probably due to the success of advocacy and communication activities conducted at different administrative levels in recent years. Interpersonal communications are one of the strengths of the NIP social mobilization programmes. A new strategic communications plan for immunization is being finalized based on the results of the recently conducted a knowledge attitude and practice survey; and ad-hoc crisis communications plans have been developed, such as for the rotavirus vaccine. The Republic of Tajikistan has the capacity to conduct information education and communication campaign activities, as past activities for the introduction of vaccines or for the European Immunization Week have demonstrated.

Nonetheless, factors hindering routine vaccination include intensive internal and international migration, hard-to-reach groups including the nomadic population, staff turnover or a lack of staff, and the sharing of borders with countries, such as Afghanistan, where there is a high prevalence of infectious diseases.

Following a 2017 immunization information system and data quality assessment of the NIP, an Operational Action Plan was developed, including recommendations to improve immunization reporting forms. Discussions are ongoing for the digitization of immunization data and the development of a common database for the health care system of the Republic of Tajikistan.

Immunization coverage monitoring is implemented by the state institution, the RCIP, and the Service of State Supervision of Health Care and Social Protection of the Population of the MoHSPP.

Indicators and scores

P.7.1 Vaccine coverage (measles) as part of national programme - Score 4

Strengths and best practices

- A high vaccination coverage is reported for all vaccines included in the national immunization calendar.
- Legislative documents to regulate MR, acute flaccid paralysis (AFP), adverse events following immunization and VPD surveillance, among others, are in place.

Areas that need strengthening and challenges

 There is an urgent need to ensure sustainable financing of the NIP, especially given the expected reduction of external support for vaccines from Government of Japan.

P.7.2 National vaccine access and delivery – Score 4

Strengths and best practices

- All EPI vaccines for children are procured centrally by UNICEF Supply Division and distributed to all health centres involved in the immunization of children through the regional- and district-level Centres for Immunoprophylaxis.
- All EPI vaccines being used are quality-assured, as only WHO prequalified vaccines are procured.
- The management of vaccine stocks at national level is of good quality.

Areas that need strengthening and challenges

 A software for supply chain management should be introduced to move on from the current paper-based system in order to help monitor the number of antigen doses and supply items, alert when supplies are low and place new orders.

- Develop a joint resource mobilization plan of the MoHSPP and the MoF that ensures sustained funding for the immunization programme.
- Improve the quality of immunization data by introducing a digital data collection system and establishing a common health database.
- Strengthen the capacity of frontline health workers and epidemiologists on immune prophylaxis issues to improve the quality of the immunization services provided.

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

The national laboratory system in the Republic of Tajikistan is in place both for the human and animal health sectors. The human health sector has two- and three-tiered laboratory systems, with an overall number of 1097 laboratories.

The three-tiered system consists of laboratories located at district, regional and national levels, which cover services for three networks: the network of sanitary and epidemiological laboratories (SEL) of the Service for State Surveillance of Healthcare and Social Population Protection and two separate networks of HIV and TB laboratories. The SEL network covers all laboratory disciplines for human and environmental samples in more than 200 institutions. The TB network is composed of approximately 90 laboratories, which use well-established testing and referral algorithms. The HIV network, which also covers hepatitis diagnostics, has approximately 40 laboratories.

The two-tiered system is composed of 565 clinical diagnostic laboratories, located in hospitals and primary health care centres. The Republic Centre of Quarantine and Especially Dangerous Infection laboratories (RCQEDI) is also a two-tiered system. Furthermore, there are private microbiology laboratories in both human and animal health sectors, which are not part of the surveillance system.

The veterinary sector has an extensive laboratory network, including multiple institutions: the Veterinary Research Institute, the Institute of Biology Safety, the National Centre for Veterinary Diagnosis (currently the National Food Security Diagnostic Centre, consisting 19 regional and 3 district laboratories) and private laboratories.

Four reference laboratories are in place for the human health sector for TB, HIV, malaria and a national reference laboratory. The veterinary sector has no reference laboratories, but samples can be sent to OIE reference centres if needed. The Republic of Tajikistan has BSL 2 and 3 facilities in some laboratories in the health sector.

More than 10 diseases are prioritized in the national list of high threat pathogens. However, there is no capacity to conduct polio diagnostics; these services are covered by a reference laboratory in the Russian Federation, assigned by WHO. In addition, the Republic of Tajikistan has signed contracts to send samples to reference laboratories in other countries. The veterinary sector has developed a strategy for four priority diseases under a FAO-supported project in 2017.

The referral system of the Republic of Tajikistan needs to be further strengthened as it is still paper-based and is not in place for the State Sanitary and Epidemiology Surveillance parasitology laboratories. Although a transportation system exists between institutions, many patients organize their transport to deliver the samples by themselves. If a dangerous infectious disease such as CCHF is suspected, RRTs are deployed to the outbreak, which includes laboratory experts who take samples on site and bring them to the laboratory. Nonetheless, this system needs to be strengthened and better financed with the provision of new vehicles, the development of guidelines and training for staff. Moreover, there is no electronic system for sharing results between microbiology laboratory system and the surveillance system.

Accreditation is voluntary and conducted by the public institution, TajikStandard. Laboratories in the veterinary sector are certified according to ISO standards; nonetheless, these certificates should be renewed by the new institution – TajikStandard. The NCFSD is accredited according to ISO 17025, and the Biological Safety Institute is holding a certificate for ISO 17065-2013.

Reference laboratories for HIV, TB and malaria and a laboratory for influenza participate in EQA programmes together with food safety laboratories. In addition, the TB laboratory is currently organizing a national EQA programme.

Indicators and scores

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

Strengths and best practices

- The national laboratory system is in place and can cover diagnostics of 10 priority diseases, although four of these have not been specified during the JEE mission.
- The country has a national list with more than 19 pathogens for the human health sector and four for the veterinary sector.
- There are reference laboratories for HIV, TB and malaria and a laboratory for influenza, which collaborate with supranational laboratories within the EQA programme.
- TB and HIV networks organize national EQA programmes regularly.

Areas that need strengthening and challenges

- Four specific priority diseases should be defined at national level.
- There is a lack of national EQA programmes for priority diseases, except for HIV and TB.
- The validation of tests is conducted in several laboratories and is not adopted as a policy of good laboratory practice across the whole system.
- There is a lack of national guidelines for the implementation of laboratory quality management practices.
- Although the quality assurance system is in place for the national reference laboratory, it must be
 introduced across the whole laboratory system for both human and animal health sectors, with a
 specific focus on conducting national EQA programmes for all priority diseases.

D.1.2 Specimen referral and transport system - Score 2

Strengths and best practices

- There are national guidelines for the transport of all types of laboratory samples.
- A referral system exists, although it is paper-based and not financially supported.
- Guidelines exist and are in use for the referral system and the transport of samples in the TB and HIV network.

Areas that need strengthening and challenges

- The transportation system should be strengthened, as patients travel from remote areas to bring their samples to healthcare institutions in more than 90% of cases.
- Sustainable funding for the transport and referral systems should be ensured.
- Other means of transport beyond vehicles should be considered and they should include appropriate packaging.

D.1.3 Effective national diagnostic network - Score 3

Strengths and best practices

- There are two- and three-tiered laboratory systems with numerous laboratories.
- Point-of-care testing is provided for certain diseases in the human health sector.

Areas that need strengthening and challenges

- An effective point-of-care system must be introduced in the human health sector, keeping in mind the fact that the transport of specimens is currently not able to sufficiently cover the needs of the population.
- Farm-based diagnostics should be introduced in the veterinary sector.

D.1.4 Laboratory quality system - Score 3

Strengths and best practices

- A centralized procurement system has been recently established.
- The National Veterinary Laboratory is accredited according to ISO 17025.
- Reference laboratories for HIV, TB and malaria and a laboratory for influenza participate in international EQA programmes, together with laboratories for food safety.

Areas that need strengthening and challenges

- Participation in international EQA programmes should be encouraged.
- The national EQA system should be strengthened.
- Quality assurance should be introduced into the whole laboratory system.
- Accreditation for more laboratories should be supported.

- Create a comprehensive national system for the transport of samples that includes transportation means beyond vehicles and is supported by SOPs for specimen collection, packaging, transport and tracking of shipments.
- Improve the reference laboratory system by defining pathogens for which reference testing is conducted and core functions for reference laboratories.
- Establish a LIS that connects the whole microbiology testing process with epidemiology surveillance units.
- Review and optimize the national laboratory system for the human health sector to increase the efficiency and cost-effectiveness of the tiered system.

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 IHB hazard-related events

Target

- 1) Strengthened foundational indicator- and EBS that are able to detect events of significance for public health and health security;
- 2) Improved communication and collaboration across sectors and between subnational (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 OIE guidelines.

LEVEL OF CAPABILITIES

The communicable disease surveillance systems of the Republic of Tajikistan are well established and have been collecting surveillance data for more than twenty years. The system is coordinated by the Department for Sanitary and Epidemiological Security, Emergency Situations and Emergency Medical Care at the MoHSPP and operates at all administrative levels in the country, from district level to regional (oblast) level and the national level.

An electronic reporting system and database, the DHIS2, have been developed for electronic reporting of notifiable communicable diseases. However, this is only used for aggregate reporting. Case-based reporting is still paper-based and data are entered on Excel sheets at national level for most diseases. DHIS2 is able to produce reports and analysis of long-term data, but the report production module of the system is only used by the Statistical Agency of the Republic of Tajikistan and not accessible to the Department of Sanitary and Epidemiological Security, Emergency Situations and Emergency Medical Care at the MoHSPP.

The influenza sentinel surveillance system, operated by the above-mentioned department, is of very high quality. It uses electronic reporting from participating clinics, including laboratory confirmatory data and produces automated weekly bulletins. Other surveillance systems are paper-based, including those for VPDs, operated by the Immune Prophylaxis Centre, and CCHF surveillance, operated by the Institute of Preventive Medicine. Data reported from laboratories are included in the surveillance systems; however, this process is not automated. All systems have a strong focus on data quality.

Case reporting is conducted on a weekly, monthly, quarterly and annual basis. It is considered to be timely with delays mostly linked to the confirmation of laboratory cases. Analysis of data is performed on a monthly, quarterly and annual basis, but it results mostly in the production of a series of tables. Few detailed epidemiological bulletins are produced with the exception of influenza and VPD surveillance. Immediate notification is possible through telephone contact staff with the Department for Sanitary and Epidemiological Security, Emergency Situations and Emergency Medical Care at the MoHSPP who are available 24/7 to provide urgent support.

There is a list of notifiable infectious diseases which includes 58 communicable disease and syndromes. Priority infectious diseases have been defined, including brucellosis, anthrax, rabies, plague, cholera, cystic and alveolar echinococcosis, TB and haemorrhagic fever. Syndromic surveillance, including for acute watery diarrhoea and AFP, is in place. Case definitions have been recently developed for all notifiable infectious diseases, although these are not publicly available.

Apart from the indicator-based surveillance system, some EBS in place in all administrative levels of the system although this is not done systematically.

The Department for Sanitary and Epidemiological Security, Emergency Situations and Emergency Medical Care at the MoHSPP has signed agreements with the corresponding authorities of the neighbouring countries and receives surveillance reports on a weekly or monthly basis from Afghanistan, China, Uzbekistan and Kyrgyzstan.

Although there is regular and rapid interaction between the above-mentioned department at the MoHSPP and the veterinary service in the response to notified zoonoses (within 12 hours), there appears to be limited access of the veterinary service to DHIS2 data. Moreover, no electronic notification system is in place for veterinary epidemiological surveillance.

Indicators and scores

D.2.1 Surveillance systems - Score 3

Some aspects of the Tajik surveillance system already operate at a score of 4, including the availability of immediate and weekly reporting from all health facilities as well as the presence of a mechanism for cross-border surveillance. A score of 3 was agreed due to the limited implementation of EBS.

Strengths and best practices

- The Republic of Tajikistan has developed regulatory orders describing the methodology for surveillance of communicable diseases.
- There are well-developed procedures for emergency notification.
- There are regular, often daily, interactions between the surveillance staff of the human and animal health sectors at all administrative levels of the surveillance system.
- There is a strong focus on the early public health response after detection of communicable diseases and outbreaks.

Areas that need strengthening and challenges

- While EBS activities are in place, a more systematic and comprehensive approach is needed, particularly at district level.
- Documentation of the surveillance system, including case definitions and lists of notifiable communicable diseases, should be easily available and published on the MoHSPP website.
- Laboratory diagnostics and transportation of samples should be improved to avoid adverse effects on case confirmation and data quality of the overall surveillance system.

D.2.2 Use of electronic tools - Score 3

Strengths and best practices

- The Republic of Tajikistan operates electronic surveillance systems for many communicable diseases, which function at all administrative levels and produce and disseminate aggregated data on a weekly basis.
- The electronic surveillance systems produce regular analysis and visualisation of data, particularly for influenza, for which they are made available on a weekly basis.

Areas that need strengthening and challenges

- DHIS2 functions well at national level; however, it can be improved at district level to overcome challenges related to Internet connection problems.
- Parallel (in case of DHIS2) or separate (in case of VPD) paper-based surveillance systems should be discontinued; electronic case-based reporting should be implemented for all communicable diseases; and, to the extent possible, a single electronic tool should be used for all reporting needs
- The veterinary epidemiological surveillance system is not directly linked to the electronic human surveillance system.

D.2.3 Analysis of surveillance data - Score 3

Strengths and best practices

- Regular analysis of surveillance data is in place and results are shared by the Statistical Agency with the MoHSPP and other relevant stakeholders.
- The number of reported cases in each district is compared every month with data from the previous year for the early detection of changes in epidemiological trends.
- Monthly, quarterly and annual data tables are produced.

Areas that need strengthening and challenges

- More detailed analysis of surveillance data is needed at all administrative levels and more detailed feedback should be provided from the MoHSPP to district and regional levels. Annual epidemiological reports should be produced, particularly for priority communicable diseases, containing more epidemiological analysis and interpretation of data. Such reports should be published on the MoHSPP website.
- The capacity for analysis of surveillance data at all levels needs to be strengthened, particularly at
 district level. A number of epidemiologists have been trained in FETPs in the past in collaboration
 with the United States Centers for Disease Control and Prevention (US CDC), however this
 programme has now been discontinued.

- Further strengthen electronic reporting, ensuring functionality at district level, interoperability with both public and private LIS and coverage of all surveillance needs.
- Systematically introduce EBS at all administrative levels.
- Increase capacity for analysis of surveillance data by conducting training in field epidemiology.
- Develop annual epidemiological reports for priority communicable diseases and publish them online.
- Conduct an external evaluation of the overall national surveillance system building on the assessment performed by WHO in May 2019 for improving the quality of surveillance for outbreak-prone and high threat pathogens.

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 IHR NFP, the OIE 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 PHEIC to WHO and listed diseases to OIE, 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 OIE.

LEVEL OF CAPABILITIES

The Republic of Tajikistan has designated an IHR NFP within the MoHSPP and a National OIE Delegate at the Food Safety Committee, who are responsible for providing information to WHO and OIE, respectively. Both focal points are trained and have access to the corresponding learning packages. Currently, there is no WAHIS NFP established.

In case of a public health emergency, epidemiological investigations are conducted by staff of the Department for Sanitary and Epidemiological Safety, Emergency Situations and Emergency Medical Care at the MoHSPP to provide the IHR NFP with sufficient information for reporting. In case of a potential emergency due to a zoonotic disease, collaboration is established between the above-mentioned department at the MoHSPP and the Food Safety Committee.

The competent institutions are currently in the process of preparing relevant protocols and processes for their reporting obligations.

Indicators and scores

D.3.1 System for efficient reporting to FAO, OIE and WHO - Score 1

The Republic of Tajikistan has developed capacities for the reporting of public health events to WHO. For example, these were used in practice in 2006/07, when 80 suspected cases of leptospirosis were registered within a short time. WHO was consulted, and support for response activities was requested. Capacities for immediate notification to OIE by the veterinary sector are, however, more limited.

Strengths and best practices

- The IHR NFP and OIE Contact Point are established.
- The ability of the country to communicate with WHO according to Article 8 of the IHR (2005) via the IHR NFP has been demonstrated in a real event in the past.

Areas that need strengthening and challenges

- A WAHIS NFP should be established.
- Capacity for immediate notification to OIE should be ensured.
- Notification to WHO should be considered in all relevant situations according to Article 6 of the IHR (2005) and should not depend on the need of support from WHO.
- The time to get internal clearance and file a notification to WHO should be decreased to allow for rapid verification, assessment and implementation of response measures.

D.3.2 Reporting network and protocols in country - Score 2

Strengths and best practices

- The Republic of Tajikistan has demonstrated a developed surveillance system for communicable diseases, including sentinel surveillance, from which epidemiological information can be made available for reporting to WHO.
- Procedures for notification to WHO can be applied, as demonstrated by the above-mentioned experience during the 2006/07 outbreak of leptospirosis.

Areas that need strengthening and challenges

- A data-driven alert mechanism that triggers the evaluation of whether an event qualifies for notification to WHO should be implemented.
- The development of protocols and processes for the reporting to FAO and OIE needs to be accelerated to conform with the obligation of reporting relevant zoonotic diseases to the international level.
- Protocols, processes and regulations for reporting to WHO should be revised and updated to accelerate the notification.

- · Establish and train a WAHIS NFP.
- Continue to develop and implement protocols and procedures for reporting a potential PHEIC to WHO, FAO and OIE.
- Strengthen the coordination between the human and animal health sectors at all levels in order to facilitate the multisectoral response to a potential PHEIC for relevant zoonotic diseases.
- Conduct a multisectoral simulation exercise for the response to a potential PHEIC for a relevant zoonotic disease in order to train on the use of the protocols and procedures.

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 includes nurses and midwives, physicians, public health and environmental specialists, social scientists, communication, occupational health, laboratory scientists/technicians, biostatisticians, information technology specialists and biomedical technicians and a corresponding workforce in the animal sector: veterinarians, animal health professionals, para-veterinarians, epidemiologists, information technology specialists, etc.

The recommended density of doctors, nurses and midwives per 1000 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 performance of veterinary services (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

The Republic of Tajikistan has developed a human resources plan for the human health sector as part of the National Health Strategy of the Republic of Tajikistan 2010–2020. This plan outlines activities to retain and strengthen the health workforce such as the expansion of personnel recruitment programmes and the promotion of incentives, including access to scholarships, for public health professionals working in remote regions.

Furthermore, the Republic of Tajikistan has an ad-hoc human resources plan for professionals in the veterinary sector. An overarching governmental human resources strategy encompasses both human resources plans for the human and animal health sectors. The human resources plans of the two sectors are reviewed and updated regularly, and their implementation is adapted accordingly.

The Republic of Tajikistan has well-staffed human and animal health sectors in general, both at national and regional (oblast) levels, in accordance with WHO recommendations. For example, in the human health sector more than 18 000 specialists with higher medical education (corresponding to 2.1 per 1000 population) and more than 50 000 specialists with secondary medical education (corresponding to 5.9 per 1000 population) are employed currently. Nonetheless, the availability of human resources in the animal health sector at local level is limited. There is collaboration between human and animal health sectors; their shared participation in joint committees is an example of this.

Regular in-service training in both human and animal health sectors are in place. Among others, this in-service training takes into account the One Health approach. However, no joint courses with participants from both sectors have taken place as of yet. Moreover, specialized courses are available to Tajik professionals on several areas such as public health, medicine, epidemiology or veterinary science. These courses can be accessed both in the Republic of Tajikistan as well as in neighbouring countries with which bilateral agreements have been signed, such as the Republic of Kazakhstan.

More than 80 research projects in the area of public health are currently being conducted, funded by the state budget.

A five- to six-year academic specialization programme in epidemiology is available in the Republic of Tajikistan. In addition, a FETP is in place, whose curricula is aligned with the FETP conducted by the US CDC. Furthermore, agreements with other countries such as the Republic of Kazakhstan have been signed through which Tajik students can access their FETP.

Indicators and scores

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

Strengths and best practices

- Human resources plans are available for both human and animal health sectors; these are reviewed and updated regularly, and their implementation adapted accordingly.
- There is an overall governmental human resources strategy which encompasses both human resources plans from the human and animal health sectors.
- Personnel recruitment programmes and professional incentives, such as scholarships, for public health officials working in remote regions are included in the human resources plan.

Areas that need strengthening and challenges

- The human resources plans of both human and animal health sectors should be harmonized through a single multisectoral workforce strategy.
- The unified multisectoral workforce strategy should be reviewed on an annual basis.

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

The human health sector of the Republic of Tajikistan exceeds scores 3, as sufficient human resources are in place not only at national and regional levels but also at local level, including in remote areas.

Strengths and best practices

- There are several universities and academic institutions that offer medical education in a number of specializations, including medicine, public health, epidemiology and veterinary science.
- The human health sector has sufficient appropriately qualified staff at national and regional levels.
- Collaboration exists between the human and animal health sectors, for example through their participation at joint committees.

Areas that need strengthening and challenges

- Sufficient human resources in the animal health sector should be ensured.
- The One Health approach should be strengthened in the curricula of medical and veterinary faculties.
- Collaboration between the human and animal health sectors should be intensified, for example through the organization of joint courses.

D.4.3. In-service training is available – Score 3

Strengths and best practices

- Regular in-service training in both human and animal health sectors are in place, which take into
 account the One Health approach. Specialized courses are available in the areas of public health,
 medicine, epidemiology or veterinary science, among others, for Tajik professionals both in the
 Republic of Tajikistan and in neighbouring countries.
- More than 80 research projects on public health are currently being conducted, which are funded from the state budget.

Areas that need strengthening and challenges

- Systematic in-service training plans should be developed in order to provide all skills and competencies that are required in both the human and animal health sectors.
- The One Health approach should be strengthened in the in-service training provided in both sectors.

D.4.4 FETP or other applied epidemiology training programme in place - Score 3

Strengths and best practices

- A five- to six-year academic specialization programme in epidemiology is available.
- An FETP is in place in the Republic of Tajikistan.
- In addition, agreements with other countries, such as the Republic of Kazakhstan, have been signed through which Tajik students can access their FETP.

Areas that need strengthening and challenges

- Sustainable funding sources should be made available to prevent the interruption of the Tajik FETP and ensure its continuation in the future.
- Further collaboration with neighbouring countries should be sought to promote mutual access to FETPs.
- The FETP should be opened for the enrolment of non-medical professionals, such as those from the animal health sector, in order to support the implementation of the One Health approach and benefit intersectoral collaboration.

- Converge the curricula of the human and animal health faculties by applying the One Health approach.
- Promote the development and use of joint courses for professionals from the human and animal health sectors.
- Strengthen academic research in the veterinary sector, for example by supporting research projects focused on the One Health approach.
- Provide modules of the FETP to medical doctors, epidemiologists and other health workers as part of the continuing professional education programme and enrol non-medical health professionals in the existing FETP.

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; and
- 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

Emergency preparedness requires a thorough analysis of all hazards, taking into consideration the potential impact that these may have on the mortality and morbidity of the local population, including the mental health consequences such as post-traumatic stress disorder (PTSD), and on the business continuity of existing infrastructure and services, such as hospitals. Protocols, SOPs and checklists should be developed for all stakeholders and for all threats. In addition, training and drills should be conducted to equip relevant staff with the necessary skills and resources, based on the previous analysis of threats. According to the information provided by the national authorities during the JEE, the Republic of Tajikistan lacks these requirements.

A lack of adequate financial and human resources is one of the main challenges for the Republic of Tajikistan to ensure an adequate level of emergency preparedness. This may result in an unplanned overuse of professional staff when an emergency occurs. While stockpiles are available, a logistics preparedness plan that identifies these, including relevant medicines and equipment, is not in place. The development and implementation of this plan should involve all relevant stakeholders, including both civilian and military sectors, to guarantee a basic level of preparedness.

The provision of medical care to the population in the Republic of Tajikistan is mandatory by law. Therefore, a preparedness plan must be implemented to ensure that an optimal level of medical care is provided to all affected persons in the event of an emergency, while ensuring that this does not impact negatively the provision of routine medical services to the population.

Indicators and scores

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

The host country did not self-score this indicator; the score was agreed during the discussion between the external evaluation team and national authorities.

Strengths and best practices

- Relevant laws for preparedness and response to emergencies are available.
- The CoES has been established.
- An Emergency Situations and Emergency Medical Care Unit has been established at the Department for Sanitary and Epidemiological Safety, Emergency Situations and Emergency Medical Care of MoHSPP.

Areas that need strengthening and challenges

- National protocols, SOPs and checklists should be developed for all threats and all stakeholders.
- Potential volunteers should be identified among retired personnel and the local population, and appropriate policies and training established, including drills, to activate volunteers during the response to an emergency.
- The local population should be educated for self-rescue and medical first aid.

R.1.2 National multisectoral multi-hazard emergency preparedness measures, including emergency response plans, are developed, implemented and tested – Score 2

The host country did not self-score this indicator; the score was agreed during the discussion between the external evaluation team and national authorities.

Strengths and best practices

- Training and exercises are conducted by the CoES.
- A national plan for emergency preparedness is updated every five years.

Areas that need strengthening and challenges

- A plan should be developed that clearly assigns the roles and responsibilities for emergency preparedness of all relevant government institutions.
- Policies and plans should be developed for the potential use of all medical care facilities, their personnel and equipment, as national resources for surge capacity.
- Annual training, including drills, should be developed and conducted for all threats and with the participation of all relevant stakeholders, especially first responders.
- A tool for epidemiological investigation for public health and law enforcement personnel should be developed.
- Procedures for conducting AARs should be developed and implemented for all threats.
- A combined basic emergency course should be developed for medical, nursing and paramedical faculties.

- Strengthen intersectoral committees tasked with writing interdisciplinary protocols, SOPs and checklists for all threats, and test them through exercises
- Designate and implement a separate budget line for preparedness activities according to an analysis of threats and in order to finance training and adequate medical equipment, infrastructures and resources.
- Use volunteers for surge capacity to counter the lack of manpower.

EMERGENCY RESPONSE OPERATIONS

INTRODUCTION

A public health EOC is a central location for coordinating operational information and resources for strategic management of public health emergencies and emergency exercises. EOCs 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 EOC functioning according to minimum common standards; maintaining trained, functioning, multisectoral RRTs, and trained EOC staff capable of activating a coordinated emergency response within 120 minutes of the identification of an emergency.

LEVEL OF CAPABILITIES

An effective response to an emergency relies on the prompt action of key stakeholders to contain the event as soon as possible and save lives. All relevant stakeholders at national, regional and local levels in the Republic of Tajikistan should be on constant alert and have clearly defined roles and responsibilities in the event of an emergency.

The Republic of Tajikistan has a robust national legislation for emergency management, including relevant laws and regulatory procedures. An emergency alert system is in place. All relevant stakeholders have SOPs that define their specific tasks during the response to an emergency. These SOPs are exercised on an annual basis. In addition, an EOC exists and is available 24/7 at national and sub-national levels. The EOC can be activated within 2 hours after an early warning of an emergency has been received. Moreover, the activation plans and functions of the EOC have been tested at the national level in the past two years. EOCs are also available at the sub-national level, with plans, SOPs, resources and trained staff in place. Several exercises are conducted at least annually to test emergency response capacities at the national level and with the involvement of sub-national stakeholders.

Indicators and scores

R.2.1 Emergency response coordination - Score 4

Strengths and best practices

- The Republic of Tajikistan has a comprehensive action plan including an emergency alert system and a list of operating procedures for emergency response at national, regional and local levels.
- Cooperation exists between the civilian and military sectors.
- A tool exists to conduct an evaluation of the situation when an emergency occurs and all relevant stakeholders are involved in this exercise.
- All ministries are represented at the EOC; if an emergency is declared, a total of 21 stakeholders are involved in the response.
- When an emergency occurs at sub-national level, the competent authority at the regional or district levels is responsible for managing the response and informing the national level.

Areas that need strengthening and challenges

• Collaboration between the regional and national levels should be strengthened given that events can escalate from the local to the national level in a very short time.

R.2.2 EOC capacities, procedures and plans - Score 4

Strengths and best practices

- EOCs are available at regional and national levels.
- EOCs are equipped with computers and telecommunication means including satellite phones.
- SOPs are in place for all EOC staff.
- A response guide is available including description of all activities, levels of alert, SOPs, etc.

Areas that need strengthening and challenges

- A hotline should be made available beyond the capital, Dushanbe.
- A computerized system for managing events should be developed.
- Awareness of the EOC functions should be improved among all relevant stakeholders.

R.2.3 Emergency exercise management programme - Score 4

Strengths and best practices

- Plans are in place for conducting drills annually.
- Schools and universities participate in emergency response exercises.
- Training for the correct use of protective gear and medical equipment is available for medical professionals at faculties.
- Drills are conducted every 3 months.
- Relevant staff is regularly evaluated on the identification of and response to suspicious cases of biological threats.

Areas that need strengthening and challenges

- Cooperation between the local and national levels should be strengthened, especially in rural areas.
- While training and exercises focus on biological threats and natural disasters, human-made emergencies should also be covered.
- Exercises should be conducted with more frequency than once every five years.

- Conduct tabletop exercises on emergencies response, focusing particularly on the existing procedures for receiving international assistance.
- Conduct more exercises on emergency management, targeting particularly medical personnel.
- Increase the level and complexity of exercises on emergency management over time.
- Develop and implement policy decisions and interventions to improve response activities informed by the lessons learned from AARs of past emergencies.

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

The National Disaster Risk Reduction Strategy of the Republic of Tajikistan for 2019–2030 represents the overarching formal cooperation agreement between the public health and security authorities in the Republic of Tajikistan. Several laws have been issued to regulate the roles and responsibilities of all administrative bodies and governmental institutions in the context of emergencies.

According to the Decree of the Republic of Tajikistan No. 833 of 31 December 2014 "On unified emergency preparedness and response", all relevant information available on suspected or confirmed events should be submitted by local or regional authorities to high-level government representatives, including the MoHSPP, the MoA and the CoES. This procedure is further regulated by local legislation. In the health sector, the Department for Sanitary and Epidemiological Security, Emergency Situations and Emergency Medical Care at the MoHSPP submits this information on a monthly basis. Furthermore, all governmental institutions must ensure their timely preparedness and submit all relevant related information, which is shared among stakeholders to inform planning for protection and search and rescue operations. Since 2002, the CoES has been in charge of managing the flow and sharing of this information.

During the last five years, the CoES has organized various simulation exercises and workshops, some of which with the participation of representatives from international organizations. For example, one month before the JEE was conducted, an exercise on emergency response to natural disasters was organized at district level to test the application of available guidelines and use of equipment. All relevant stakeholders participated in the exercise, including airport authorities. Upon the completion of these exercises, all participating institutions must apply the lessons learned by modifying their human resources and search and rescue operations plans and adapting their implementation accordingly. In addition, the CoES organizes regular training on radiological and chemical protection.

National health authorities of the Republic of Tajikistan are in close contact with law enforcement institutions, including customs authorities, border police services and the State Committee for National Security with regards to suspected or confirmed events. One law enforcement officer is placed at the MoHSPP to supervise overall emergency management. Furthermore, there is close collaboration between the laboratory services of the MoHSPP and the CoES in this regard.

The human and animal health sectors can request the support of law enforcement authorities at all administrative levels to manage a public health event or other IHR-related hazard. If necessary, the army and other national security authorities cooperate with the MoHSPP and other relevant stakeholders in response operations, including in the public health response. Event-specific SOPs are in place, including

for disease outbreaks, events at PoE and food contamination. Additional generic protocols for other type of events are under development. There is a need to draft specific protocols, guidelines and SOPs with the specific aim to accelerate coordination in the response to potential events.

The Republic of Tajikistan has developed a national action plan to prevent the proliferation of weapons of mass destruction (WMD) to non-state actors, in accordance with United Nations Security Council (UNSC) Resolution 1540. The implementation of this action plan is supervised by a national coordinating body, the Agency for Nuclear and Radiation Safety, which is established under the Academy of Sciences of the Republic of Tajikistan.

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

- Legislation is in place for cooperation among sectors in case of emergencies.
- A coordinating and operational body is established to manage protection and rescue operations for both suspected and confirmed events, regardless of whether these are anticipated or not.
- Training, workshops and exercises on preparedness for public health and security authorities have taken place.

Areas that need strengthening and challenges

- Regular multisectoral simulation exercises and training should be conducted on preparedness and response to public health threats.
- SOPs for multisectoral communication and response in case of public health threats should be established.
- Communication techniques, protection equipment and procedures for public health workers should be strengthened.

- Organize a training for public health authorities on security issues in relation to biological, chemical and radiation events.
- Develop SOPs for information sharing across sectors in the response to public health threats.
- Organize simulation exercises at national and local level with international assistance.
- Improve communication techniques, protection equipment and procedures for public health workers.

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, logistic 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

The Republic of Tajikistan has developed and tested its capacity for the deployment and use of medical countermeasures during public health emergencies. A system for the deployment of health personnel has also been developed and tested. For example, two high-level tabletop exercises for the response to trans-boundary threats were recently conducted which counted with the participation of external stakeholders, such as representatives from UN agencies and donors. Several international agreements have been signed to regulate the criteria and procedures for sending and receiving health personnel, such as among countries of the Commonwealth of Independent States.

The National Disaster Risk Reduction Strategy of the Republic of Tajikistan for 2019–2030 provides the overarching policy framework for the use of medical countermeasures. In the event of an emergency, a multisectoral coordination team is established, composed of representatives from several departments in charge of emergency management and operations. The Republic of Tajikistan has signed multiple inter-governmental agreements with neighbouring countries for the deployment of health personnel across its borders in the event of an emergency at a ground crossing.

National stockpiles of emergency supplies are available in several regions, including medicines and medical and sanitary equipment. Moreover, plans are in place for the deployment of medical personnel during emergencies, including of national emergency medical teams (EMTs). These have been tested through a tabletop exercise, and training and equipment for national EMTs are available.

In case medical countermeasures need to be delivered to or received from other countries, guidelines are available for the establishment of a team to oversee these operations. The MoHSPP is the responsible authority for all medical countermeasures that arrive to the Republic of Tajikistan, such as medicines or EMTs, and a control mechanism is in place to assess their quality. For example, drugs are only accepted for use after these have been inspected by an expert team. All medical facilities in the country are obliged by law to have a 30-day stockpile of medical supplies. There are few pharmaceutical companies in the country that produce antibiotics and other medicines.

More efforts should be made to enhance multisectoral procedures for the deployment of medical countermeasures and personnel. A comprehensive plan for multi-hazard multisectoral public health emergencypreparedness and other contingencyplans for specific IHR-related hazards should be developed. In addition, functional procedures and practices should be integrated in a comprehensive plan with clear SOPs, including decision-making processes for sending and receiving medical countermeasures during public health emergencies. This plan should include memoranda of understanding and agreements with organizations, manufacturers, distributors and other stakeholders involved in the deployment of personnel and/or medical countermeasures during a public health emergency.

Indicators and scores

R.4.1 System in place for activating and coordinating medical countermeasures during a public health emergency – Score 3

Strengths and best practices

- There is experienced staff in place.
- Multisectoral sub-teams have been established.
- Training is conducted.
- There is a national stockpile and warehouse staff are ready to be deployed within a short time.
- Each health facility has a 30-day stockpile.
- Drills to improve preparedness and guide the updating of plans are regularly conducted.

Areas that need strengthening and challenges

- Specific SOPs and action plans should be further developed.
- Training conducted at the regional level should be improved.
- Specific attention should be paid to preparedness and response activities in the event of an earthquake, given that the Republic of Tajikistan is an earthquake-prone country.
- Additional financial resources should be provided to address these recommendations.

R.4.2 System in place for activating and coordinating health personnel during a public health emergency – Score 3

Strengths and best practices

- The country has experience in international deployment of health personnel for the response to an earthquake.
- Drills to improve preparedness capacity and update plans accordingly are regularly conducted.

Areas that need strengthening and challenges

- Training conducted at regional level should be improved.
- Infrastructure should be put in place to receive relief workers from abroad.
- The legal framework should be regularly reviewed.

R.4.3 Case management procedures implemented for IHR relevant hazards - Score 4

Strengths and best practices

- Procedures are in place to manage cases of priority diseases with the potential to turn into epidemics.
- Legislation exists to protect people and animals against infectious diseases.
- There are guidelines in place for the referral and transport of patients to health facilities.

Areas that need strengthening and challenges

- Guidelines to manage cases of priority diseases and IHR-related hazards need to be developed at all health system levels.
- Better intersectoral coordination is needed to improve preparedness for and response to all IHRrelated hazards, including through the development of specific SOPs.

- Identify health care facilities and equipment to ensure adequate first response to mass casualty events.
- · Develop case management guidelines for all IHR-related hazards.
- · Conduct training on tabletop exercise methodology.
- Conduct tabletop exercises on deployment of medical countermeasures for all IHR-related hazards at PoE and, in particular, at ground crossings.

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 well-being) 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

The Republic of Tajikistan has a strong central public health structure within the MoHSPP, under which there is a well-developed Intersectoral Committee that facilitates interagency coordination. This committee includes mechanisms for internal and public communication with well-established clearance processes and the ability to bring in higher levels of government as needed. The committee also covers the area of partner engagement, in which the country has ample experience. For example, multiple partners are engaged in conducting vaccination campaigns and HIV-related activities.

The response to public health emergencies in the Republic of Tajikistan is intimately tied to the general emergency response framework of the country. The CoES exercises coordination authority over all emergencies, and the Unified State System on Preparedness and Response to Emergency Situations operates as a standard implementation vehicle, which includes a communication component. Within this system, risk communication is largely reactive, although there is a focused public health activity on proactive public health communication to prevent panic. The human health sector can trigger an immediate response, including appropriate communication, as demonstrated when the last index case of CCHF was identified.

The response framework also engages a well-developed decentralized health network at community level. Nonetheless, a key component for promoting rural engagement through the expansion of digitalization, eGovernment, is still being deployed. Adequate domestic funding and staff exist for current operations. These may be sufficient to increase operations to some degree, but the ability to expand communications capability in the event of a major emergency remains a challenge.

The Republic of Tajikistan does not have much experience in managing large-scale public health emergencies, as these are uncommon. The country has established a Rapid Emergency Assessment and Coordination Team (REACT) and completed a tabletop and a field emergency response simulation exercise in October 2019. Nonetheless, the absence of outbreaks leaves untested the country's public health emergency capability, including the specific needs of risk communications. This highlights an opportunity to further develop and test risk communications capability.

Indicators and scores

R.5.1 Risk communication systems for unusual/unexpected events and emergencies – Score 4

Strengths and best practices

- The National Strategy for Disaster Risk Reduction of the Republic of Tajikistan for 2019–2030 in concert with the Unified State System on Preparedness and Response to Emergency Situations define emergency communication and coordination procedures within the government and with the public.
- There is a well-established mechanism at the central government composed of inter-ministerial committees for gathering and disseminating information.

Areas that need strengthening and challenges

• Operational processes to handle information in an efficient and centralized fashion have not been fully defined and tested for the event of a large-scale public health emergency.

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

Strengths and best practices

- The government has very strong ad-hoc/event-driven internal communication procedures between agencies and ministries, bringing together all involved governmental actors when an emergency occurs.
- The broader emergency response sector is engaged in REACT simulations which test communications along with other response capabilities.

Areas that need strengthening and challenges

Although planning exists, interagency and partner communication plans are not sufficiently
defined and implemented at a level of operational detail enough to assure that the country is
optimally prepared for an immediate response to a large-scale emergency.

R.5.3 Public communication for emergencies – Score 3

Strengths and best practices

- Press offices in the ministries and major government agencies carry out public communication functions for human and animal health and are supported by adequate equipment and resources to engage with the public through all media.
- The MoHSPP has a proven ability to produce health messages for the public; for example, in 2016 alone it produced 330 videos, 6000 targeted messages and 401 articles on emergencies.

Areas that need strengthening and challenges

 Risk communications is a specialized subset of public engagement, which requires focused training and skills that are not yet broadly in place in the government nor in academic training programmes of the Republic of Tajikistan.

R.5.4 Communication engagement with affected communities - Score 3

Strengths and best practices

- Mahala committees are a decentralized mechanism for engagement with local stakeholders through which public health advocacy and community participation activities are carried out.
- The Unified State System on Preparedness and Response to Emergency Situations has the capacity to mobilize the community in the event of an emergency through its commissions and representatives at district level (jamoat).

Areas that need strengthening and challenges

• The community health committee structure would benefit from increased training and monitoring and evaluation activities aimed at better engaging community volunteers in the event of a large-scale or protracted public health emergency.

R.5.5 Addressing perceptions, risky behaviours and misinformation – Score 2

Strengths and best practices

- Ministry press offices monitor all types of media and have been successful in detecting rumours and misinformation.
- The country has experience in creating successful campaigns to combat rumours, such as vaccine-related misinformation.

Areas that need strengthening and challenges

• A systematic mechanism for the early detection of rumours or patterns of behaviour should be developed to track rumours and guide routine response activities.

- Incorporate the eGovernment concept as a central component of the public health emergency communications strategy to enhance Internet connectivity, particularly in rural areas.
- Develop a risk communications training programme for all relevant government actors.
- Create a systematic approach to scanning and tracking rumours, integrating communications and EBS functions for early detection and monitoring.

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

The Republic of Tajikistan is landlocked. It has four ground crossings located in its southern border with Afghanistan; one in the eastern border with China; four in the northern border with Kyrgyzstan; and five in the eastern border with Uzbekistan. In addition, there are four railway border crossings with Uzbekistan and four international airports.

Three international airports and nine ground crossings have been officially designated as PoE under the IHR (2005) by the Republic of Tajikistan. However, the information gathered through the JEE did not allow the external evaluation team to determine the extent to which these designated PoE meet all of the required core capacities in accordance with the IHR (2005).

According to the information provided by the national experts, health information at all PoE is coordinated by the Department for Sanitary and Epidemiological Security, Emergency Situations and Emergency Medical Care at the MoHSPP. Access to appropriate medical services is provided at all PoE by a sanitary control team, which consists of at least one medical doctor and one nurse. Furthermore, temperature measurement tools are available at all airports. Some PoE have isolation rooms and provide transportation services to medical facilities for ill passengers.

Inspection programmes are in place at all airports and conducted regularly, which ensure a safe environment for travellers and workers. These programmes are supervised by the Department for Sanitary and Epidemiological Security, Emergency Situations and Emergency Medical Care of the MoHSPP. Vector control plans are also available at all airports. Railway stations have their own inspection programmes.

The Order of the Government of the Republic of Tajikistan of 29 April 2010 No. 202 "On approval of the National Border Management Strategy and the Plan for its implementation" includes the establishment of an early warning system for all hazards – chemical, biological, radiological and nuclear – and requires the Department for Sanitary and Epidemiological Security, Emergency Situations and Emergency Medical Care of the MoHSPP to have updated information on communicable diseases that are prevalent in neighbouring countries. This order, together with the Sanitary Law on Quarantine recently approved, may serve as the legal basis for the integration of the public health emergency contingency plans at each designated PoE into a national comprehensive emergency preparedness and response plan.

The public health emergency contingency plan developed for each designated PoE should contribute to improving the communication and coordination and clarifying the distribution of responsibilities between the Department for Sanitary and Epidemiological Security, Emergency Situations and Emergency Medical Care of the MoHSPP and other relevant sectors involved in the response to an emergency at PoE, such as airport, railway or transport authorities and security officers, among others.

The State Veterinary Inspection Service at PoE works 24/7 in the four international airports and in 27 ground crossings and railway stations. There are phytosanitary and veterinary services for the management of food safety and the control of live animals that cross borders. Relevant information is sent to the FSC and shared with the Department for Sanitary and Epidemiological Security, Emergency Situations and Emergency Medical Care at the MoHSPP.

Indicators and scores

PoE.1 Routine capacities established at PoE - Score 2

The animal health sector in the Republic of Tajikistan exceeds the score 2, as the veterinary service works 24/7 at the most important PoE performing control activities for live animals and food safety. However, this is not always the case for the public health sector.

Strengths and best practices

- The national public health sector is present at all PoE through the Sanitary Control Teams.
- The Department for Sanitary and Epidemiological Security, Emergency Situations and Emergency Medical Care of the MoHSPP manages the information flow for communicable disease surveillance at PoE, including both the provision of epidemiological data to the PoE and its collection at the PoE.
- The veterinary service works 24/7 at the most important PoE performing control activities for live animals and food safety.
- There is routine communication between veterinary services and the Department for Sanitary and Epidemiological Security, Emergency Situations and Emergency Medical Care of the MoHSPP.

Areas that need strengthening and challenges

- The overall number of PoE that are designated under the IHR (2005) should be limited to facilitate the prioritization of actions to meet the core capacity requirements.
- While medical facilities exist at all PoE, appropriate equipment for diagnosis and care of sick travellers should be made available.
- Relevant professionals working at PoE should be trained in the legal nature and requirements of the IHR (2005).

PoE.2 Effective public health response at PoE - Score 2

Strengths and best practices

- A public health contingency plan is in place in each designated PoE.
- An all-hazard early warning system is included in the national legislation of the Republic of Tajikistan, which covers all chemical, biological, radiological and nuclear events at PoE.
- The Department for Sanitary and Epidemiological Security, Emergency Situations and Emergency Medical Care of the MoHSPP is legally required to have updated information on communicable diseases from neighbouring countries.

Areas that need strengthening and challenges

- The public health contingency plan of each designated PoE should be integrated in a national emergency preparedness and response plan.
- Responsibilities of each sector involved in the response to a public health emergency at PoE should be clarified.
- Simulation exercises with the participation of all relevant sectors involved in the response to a public health emergency at PoE should be conducted to evaluate and improve coordination.

- Review the list of officially designated PoE, limiting it to those that are more relevant according to the volume of international trade and travel and the epidemiological risk.
- Integrate all public health emergency contingency plans for designated PoE into a national emergency plan.
- Train sanitary personnel working at PoE in the legal nature and requirements of the IHR (2005).
- Clarify communication and coordination procedures between all relevant sectors involved in the response to an emergency at PoE and test them through simulation exercises.

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

In the Republic of Tajikistan, the surveillance and response capacity is still shaped by its Soviet legacy and undergoing a transition into a Tajik vision of a modern laboratory system. As a result, several challenges persist, including inadequate regulation and enforcement. This has led to ongoing instances of improper waste disposal and continued storage and use of banned agricultural chemicals, a finding supported by the UN Environment Programme in 2019.

However, the country is actively engaged in reducing these risks. In 2017, for example, an official Review of Emergency Situations reported that the state was monitoring 35 facilities that previously used strong poisonous substances, and that 16 facilities had switched from hazardous to safe chemical use. Furthermore, the country has ratified the Basel and Stockholm conventions and is progressing towards the ratification of the Rotterdam and Minamata conventions. Risk reduction is supported by the development of chemical profiles, including the 2014 National Report on the Current Situation of Chemical Management in the Republic of Tajikistan.

Multiple agencies share responsibility for carrying out monitoring and risk reduction activities. The Committee for Environmental Protection has a large oversight role; however, its ability to promote, implement and monitor change is constrained by the inadequate budget available for equipment, staff and training. For example, the State Organization for Plant Protection and Agriculture Chemicalization has the authority over pesticides and other petrochemicals, but its laboratory is not fully functional due to the lack of modern equipment.

In the area of food safety, chemical monitoring is carried out for the importation and exportation of food. However, there is a lack of resources for these monitoring activities to be fully comprehensive. Coordination among laboratories is in place, and their capacity is strong in areas such as heavy metal detection. There is also capacity for liquid and gas chromatography, although the machine is currently offline.

The emergency response authority in the context of a chemical event lies with the CoES, which ensures that some equipment is stockpiled, including protective equipment and chemical antidotes. Protocols and procedures exist, and the CoES oversees coordination and response of both the general response and the specific chemicals procedures, such as relevant arrangements in the event of contaminated housing. However, the chemical response remains relatively untested given the lack of chemical events in the country. While regular simulations are conducted, there is a need for better preparation and practice through more robust simulation exercises.

Indicators and scores

CE.1 Mechanisms established and functioning for detecting¹ and responding to chemical events or emergencies – Score 3

Strengths and best practices

- The country has multiple laboratories that are capable of and actively engaged in chemical monitoring, such as the Chemical Laboratory within the Department for Sanitary and Epidemiological Security, Emergency Situations and Emergency Medical Care at the MoHSPP.
- There is a documented programme for monitoring high-risk chemical contamination sites, and environmental monitoring followed up by governmental action has led to reforms in numerous high-risk situations.
- Water quality monitoring is well developed and reliable.

Areas that need strengthening and challenges

- Routine environmental and agricultural monitoring should be increased and the associated laboratories strengthened in order to improve the ability for early detection of chemical events.
- A comprehensive poison control centre for Tajikistan or in concert with neighbouring countries should be developed to drive rapid response activity.

CE.2 Enabling environment in place for management of chemical events – Score 5

Strengths and best practices

- A strong legal basis exists for the regulation of chemicals to reduce risks to human health, and mechanisms are in place to coordinate intersectoral activity.
- Chemical emergencies are included in the country's all-hazard emergency response planning, and procedures and some stockpiled supplies (such as protective equipment, masks or antidotes) are available for rapid response.

Areas that need strengthening and challenges

- The legal and operational basis for chemical readiness should be adequately tested and updated.
- Involvement in international agreements and international networks should be increased to fully utilize the international resources that are available.

- · Expand environmental and agricultural monitoring and investigation.
- Strengthen laboratory capacity especially with respect to agricultural chemicals and unknown substances.
- Reassess the national list of approved chemicals.
- Develop a poison control centre for the Republic of Tajikistan or in concert with neighbouring countries.

Detection capacity also includes not only surveillance but also the laboratory capacity required for the verification of any events.

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

The Nuclear and Radiation Safety Agency is the State Regulatory Authority for the protection and security of the population from radiological hazards. It was established in 2002 under the Academy of Science of the Republic of Tajikistan. Together with the CoES, it is the central coordination body for the management of accidents of radiological nature, including those resulting in human, animal or environmental exposure to radiation.

The accession of the Republic of Tajikistan to the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management of the International Atomic Energy Agency (IAEA) entered into force on 11 December 2008. Being a member of the IAEA since 2002, the Republic of Tajikistan has developed laws and regulations that create a solid legal framework for the protection of the population in this area.

According to the fourth report of the regulatory authority to the IAEA of October 2017, there are currently five laws and more than 30 regulations that govern radiation safety and security in the Republic of Tajikistan. For example, the first law "On Radiation Safety" was approved in 2003, while the law on "Radioactive waste management" dates of July 2013.

The Republic of Tajikistan has no nuclear power plants nor nuclear fuel in the country. However, it uses radiation technology in several manufacturing branches, in medical technology and for research purposes. The radioactive waste deposits stemming from radiation technology and the remnants of a substantial number of former uranium tailing sites are the most relevant health and environmental hazards, given the risk of human or animal exposure to contaminated surface water and soil.

Establishing a joint coordination platform that brings together high-level staff from the human health, animal health and environment sectors together with professionals from the Nuclear and Radiation Safety Agency and from the CoES would greatly contribute to the implementation of the IHR (2005) all-hazards approach in the Republic of Tajikistan.

Indicators and scores

RE.1 Mechanisms established and functioning for detecting and responding to radiological and nuclear emergencies – Score 3

Strengths and best practices

- The Republic of Tajikistan has a solid legislative framework in the area of radiation safety, consisting of more than 30 regulatory instructions.
- The Nuclear and Radiation Safety Agency and the CoES combine the authoritative power and operational capabilities in the area of radiological and nuclear issues.

Areas that need strengthening and challenges

- A joint coordination platform composed of specialists from the sectors human health, animal health and the environment should be established to systematically engage with the Nuclear and Radiation Safety Agency and the CoES on radiation and nuclear hazards.
- A joint training programme for professionals from the sectors human health, animal health and the environment should be developed to timely detect and assess events of radiological nature with potential public health consequences.

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

Strengths and best practices

- The IHR NFP is positioned at a high political level, which enables the direct interaction with the national coordinating bodies on radiological and nuclear events with potential health effects.
- The Radiological Department at the Shifobakhsh National Medical Centre is a dedicated health care facility for the clinical management of severe radiation injuries.
- Staff of the emergency management units at the MoHSPP act as focal points for regional and local level coordination on radiation issues.

Areas that need strengthening and challenges

- A tabletop and a simulation exercise on radiation-related health emergencies should be organized with the participation of health professionals from risk-prone regions.
- The links with global networks, such as the WHO's Radiation Emergency Medical Preparedness and Assistance Network (REMPAN), the global biodosimetry laboratories network for radiation emergencies (BioDoseNet) and the IAEA's Response Assistance Network (RANET), need to be reviewed, coordinated and updated.

- Establish a joint coordination platform for the sectors of human health, animal health and the
 environment to systematically engage with authorities from the Nuclear and Radiation Safety
 Agency and the CoES on radiation hazards, events and emergencies.
- Organize a tabletop and a simulation exercise on radiation-related health emergencies with the participation of health professionals from risk-prone regions.

ANNEX: JEE BACKGROUND

Mission place and dates

Dushanbe, Republic of Tajikistan; 21-25 October 2019.

Mission team members:

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Objective

To assess the capacities and capabilities of the Republic of Tajikistan that are relevant to the 19 technical areas of the JEE tool and provide baseline data to support efforts to reform and improve public health security in the country.

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 conducted in one week, which limited the amount and depth of information that could be managed.
- The self-assessment was completed in Russian language, translation for most of its content was made available in English. Interpretation services available both ways, causing only minor delays in understanding presentations and viewpoints.
- It is assumed that the results of this evaluation will be publicly available.
- The evaluation is not an audit. Information provided by the Republic of Tajikistan will not be independently verified but was discussed and the evaluation rating mutually agreed to by national authorities and the evaluation team. This is a peer-to-peer review.

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