

# JOINT EXTERNAL EVALUATION OF IHR CORE CAPACITIES

of the

## ISLAMIC REPUBLIC OF AFGHANISTAN

Mission report:  
4–7 December 2016



World Health  
Organization



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# Contents

- Abbreviations----- vi
- Executive Summary ----- 1
- Introduction----- 3
- Afghanistan Scores ----- 5
  
- PREVENT ----- 7**
- National legislation, policy and financing----- 7
- IHR coordination, communication and advocacy ----- 10
- Antimicrobial resistance ----- 12
- Zoonotic diseases ----- 14
- Food safety----- 17
- Biosafety and biosecurity ----- 19
- Immunization----- 22
  
- DETECT ----- 24**
- National laboratory system----- 24
- Real-time surveillance----- 28
- Reporting----- 30
- Workforce development ----- 32
  
- RESPOND ----- 35**
- Preparedness ----- 35
- Emergency response operations----- 38
- Linking public health and security authorities----- 41
- Medical countermeasures and personnel deployment----- 43
- Risk communication ----- 45
  
- OTHER ----- 50**
- Points of entry ----- 50
- Chemical events----- 52
- Radiation Emergencies----- 54
  
- Appendix 1: Joint External Evaluation Background----- 56

## Abbreviations

<b>AMR</b>	Antimicrobial resistance
<b>ANDMA</b>	Afghanistan National Disaster Management Authority
<b>BPHS</b>	Basic package of health services
<b>BSL</b>	Biosafety level
<b>CCC</b>	Command and Control Centre
<b>CCHF</b>	Crimean-Congo haemorrhagic fever
<b>CHW</b>	Community health worker
<b>CPHL</b>	Central Public Health Laboratory
<b>DEWS</b>	Disease Early Warning System
<b>EHIS</b>	Evaluation and Health Information System
<b>EOC</b>	Emergency operations centre
<b>EPHS</b>	Essential package of hospital services
<b>EPI</b>	Expanded Programme on Immunization
<b>EPR</b>	Emergency preparedness and response
<b>FAO</b>	Food and Agriculture Organization of the United Nations
<b>FETP</b>	Field Epidemiology Training Programme
<b>GIS</b>	Geographic Information System
<b>GoA</b>	Government of Afghanistan
<b>HCAI</b>	Health care-associated infections
<b>HIV</b>	Human immunodeficiency virus
<b>HNS-IMC</b>	Inter-ministerial Committee for Health and Nutrition Sector
<b>HRH</b>	Human resources for health
<b>IEC</b>	Information, education and communication
<b>IHR</b>	International Health Regulations (2015)
<b>JEE</b>	Joint External Evaluation of the IHR
<b>MAIL</b>	Ministry of Agriculture, Irrigation and Livestock
<b>MCI</b>	Mass casualty incidents
<b>MoC</b>	Ministry of Commerce
<b>MoPH</b>	Ministry of Public Health
<b>MoU</b>	Memorandum of Understanding
<b>NERPH</b>	National All-Hazard Emergency Response Plan in Health
<b>NFP</b>	National Focal Point
<b>NGO</b>	Nongovernmental organization
<b>OIE</b>	World Organisation for Animal Health





<b>PHEIC</b>	Public health emergencies of international concern
<b>PoE</b>	Point(s) of entry
<b>SMS</b>	Short (text) message service
<b>SOP</b>	Standard operating procedures
<b>ToR</b>	Terms of reference
<b>UNICEF</b>	United Nations Children’s Fund
<b>USAID</b>	United States Agency for International Development
<b>WASH</b>	Water, Sanitation and Hygiene programme of UNICEF
<b>WHO</b>	World Health Organization



## Executive summary

The Islamic Republic of Afghanistan faces multiple challenges. Due to multiple periods of conflict over the last decades, the country's health system is highly reliant on external nongovernmental or international support. Operationally, the majority of public health functions are managed by contracts and funding comes to a large extent from development partners. While the Ministry of Public Health (MoPH) manages these contracts and coordinates functions, the structure of the system is a major challenge.

Nevertheless, Afghanistan has achieved some remarkable results in several technical areas of the IHR, e.g. in zoonotic diseases, vaccine access and delivery, parts of the laboratory system, and especially in real-time surveillance. In addition, cooperation between public health and security authorities is strong, where established protocols exist and are frequently used.

In other areas of the IHR, however, major challenges remain. Legislation to enable IHR implementation is lacking and coordination functions are non-existent. Routine capacity at points of entry is missing and practical capacity to deal with major chemical or radiation emergencies is very low.

On a more positive note, the willingness to cooperate between sectors and develop capacity was evident to the external evaluation team, in particular the dialogue and willingness to adopt a one-health approach between the MoPH and the Ministry of Agriculture, Irrigation and Livestock (MAIL).

Following discussions with the Afghanistan Government and the Country Representative of the World Health Organization (WHO) it was decided that, while the report will follow the standard format of Joint External Evaluations, the most pressing actions for each technical area listed below will inform the development of a multi-annual action plan to strengthen IHR functions.

IHR technical area	Top priority action
<b>National legislation, policy and financing</b>	Establish a national committee of legal advisors and public health officers representing all sectors relevant to IHR, including the IHR National Focal Point (NFP), to review national legislation, decrees, policies and administrative procedures to identify gaps and corrective measures to accelerate the implementation of IHR.
<b>IHR coordination, communication and advocacy</b>	Establish an IHR multisectoral coordination committee with high level representation and defined terms of reference.
<b>Antimicrobial resistance (AMR)</b>	Develop a national plan for the detection and reporting of AMR pathogens to include both animal and human health.
<b>Zoonotic diseases</b>	Finalize and ratify the National Zoonotic Disease Strategy to (a) sustain current surveillance systems and shift towards more active surveillance and electronic information-sharing; (b) improve the current joint response mechanism; (c) improve multisectoral cooperation at the national level; and (d) devise a compensation plan to encourage reporting of disease from farmers.
<b>Food safety</b>	Establish the food control authority as mandated by the Food Safety Law. The authority should include focal points from all relevant sectors including the MoPH (epidemiology, laboratory, environmental health); MAIL (epidemiology, laboratory); Ministry of Commerce and Industry; and municipalities, waterworks and sanitation.
<b>Biosafety and biosecurity</b>	Strengthen the biosafety/biosecurity comprehensive system to involve human, animal and agriculture sectors countrywide, not only at the central veterinary and national public health laboratories, but also at lower-level laboratories since these are involved in sample collection and packaging.
<b>Immunization</b>	Support microplanning through the reaching every district strategy using community health workers and BASIC tools to improve immunization services and data quality and use.

<b>National laboratory system</b>	Institute immediate routine reporting requirements of laboratory diagnostic results to the infectious disease surveillance department.
<b>Real-time surveillance</b>	Strengthen the capacity-building of the surveillance staff on emerging and re-emerging diseases.
<b>Reporting</b>	Review the terms of reference of the IHR NFP and ensure the notification of public health emergencies of potential international concern to the World Health Organization.
<b>Workforce development</b>	Include public health specialists in the workforce planning and health workforce statistics as part of the human resources for health strategy.
<b>Preparedness</b>	Review and update the national disaster management plan and the national health emergency response plan according to results of the health emergency risk assessment and the joint external evaluation of IHR.
<b>Emergency response operations</b>	Integrate relevant IHR-related functions within the Command and Control Centre under Emergency Preparedness and Response for coordinated risk assessment and response to all public health events.
<b>Linking public health and security authorities</b>	Develop joint standard operating procedures between public health and security authorities (e.g. joint investigations of outbreaks, requests for assistance, identification of responsible focal points).
<b>Medical countermeasures and personnel deployment</b>	Review and update the existing disaster management law, pandemic influenza plan and other relevant documents in relation to sending and receiving medical countermeasures and personnel deployment to respond to public health emergencies.
<b>Risk communication</b>	Develop a national strategic framework and plan for multi-hazard risk communication.
<b>Points of entry</b>	Develop a public health contingency plan for all hazards at points of entry with the involvement of relevant stakeholders.
<b>Chemical events</b>	Embed an understanding and awareness of chemical event surveillance within the surveillance system, and further develop the response capability of chemical events in Afghanistan.
<b>Radiation emergencies</b>	Provide training on radiation safety for those who could be exposed.

The Government of Afghanistan, together with its international partners, may use the above table to guide the development of an IHR action plan. It is clear, however, that the country can make other choices among the list of priority actions available under the technical report sections, depending on circumstances unknown to the External Evaluation Team or other reasons affecting the priority setting.

However, the priorities identified above do represent the joint evaluation of both the external and national experts and therefore carry a certain level of weight.

## Introduction

The Islamic Republic of Afghanistan has a population of approximately 32 million. It is bordered by the Islamic Republic of Pakistan in the south and east; the Islamic Republic of Iran in the west; the Republic of Tajikistan, Turkmenistan, and the Republic of Uzbekistan in the north; and the People's Republic of China in the north-east.

As of 2015, 2.7 million Afghan refugees were living in Pakistan and Iran. In 2013, 46% of Afghanistan's population were under 15 years of age and 74% lived in rural areas. Women gave birth to an average five children and 6.8% of all babies died in childbirth or infancy. Life expectancy in 2013 was 60 years.

The service mix provided at the different levels of the health system is described in Table 1.

**Table 1: Health services provided according to level of health facility**

Health facility	Type of service	Coverage population
Regional hospital	Assessing, diagnosing, stabilizing, treating, or referring back to a lower-level hospital	NA
Provincial hospital	In-patient care	200 000 to 500 000
District hospital	Preventive and curative outpatient and in-patient care	100 000 to 300 000
Community health centre	Preventive and curative (mostly outpatient) care	30 000 to 60 000
Basic health care centre	Preventive and curative (mostly outpatient) care	15 000 to 30 000
Medical doctors/ nurses	Basic health care	NA
Health sub-centre	Basic health care	3000 to 7000
Health post	Preventive and selected curative care	100–150 families or 1000–1500 individuals

Access to health services has clearly increased since 2002: today, an estimated 57% of the population can reach a health facility within one hour, up from only 9% in 2002.<sup>1</sup> Nevertheless, health service quality often suffers from low staff competence and lack of supplies. Also, chronic malnutrition continues to undermine the country's level of educational achievement and ultimately, economic productivity. BPHS and EPHS delivery are funded and contracted through government systems, with technical assistance provided to the Ministry of Public Health (MoPH) by multiple development partners. The Government of Afghanistan (GoA) directs the delivery of health services, while delivery itself is carried out largely by nongovernmental organizations (NGOs); private sector providers are also an emerging resource.

Funding for the public health system comes almost exclusively from external sources. For more than 10 years, health service delivery has depended strongly on donor funds from the World Bank, the United States Agency for International Development (USAID), and the European Union. Over time, GoA will need to become the principal provider of funds to the health sector. In 2015–2018 donors will continue to fund delivery of the BPHS and EPHS across all 34 provinces of the country. The provision of essential health services to the Afghan population has been a critical driver of the substantial gains in health: between 2002 and 2010, maternal mortality decreased by 80% and infant mortality decreased by 50%.

To create an increasingly self-sufficient health system, with appropriate funding and governance, the GoA has started to develop a National Health Strategy 2016-2020. The Strategy aims to achieve strengthened, expanded, efficient, and sustained performance throughout the health system. This should result in improved and equitable access to quality, affordable, health-care services, as well as better overall health and nutritional status of all populations, especially women, children, and vulnerable groups. The MoPH is the

<sup>1</sup> Ministry of Rural Rehabilitation and Development, Afghanistan National Risk and Vulnerability Assessments, 2003 and 2007–2008. International Household Survey Network (<http://catalog.ihns.org/index.php/catalog/935>).

leading agency for implementation of the National Health Strategy, with specific roles and responsibilities at different levels. The MoPH departments at both the central and provincial level will develop annual action/operational plans for implementation of the Strategy.

However, the MoPH recognizes that substantial challenges exist to implement the Strategy, notably:

- Weak evidence-based policy, planning, and regulatory capacity of the MoPH at all levels
- Inadequate regulatory enforcement mechanisms, capacity, and practices
- Heavy donor dependence and high staff turnover
- Weak MoPH capacity for effective public and political advocacy
- An inadequate number of female health workers, including in the management teams of provincial public health offices
- Weak coordination and collaboration among various stakeholders.

## Afghanistan scores

Technical areas	Indicators	Score
<b>National legislation, policy and financing</b>	P.1.1 Legislation, laws, regulations, administrative requirements, policies or other government instruments in place are sufficient for implementation of International Health Regulations (2005)	1
	P.1.2 The State can demonstrate that it has adjusted and aligned its domestic legislation, policies and administrative arrangements to enable compliance with IHR	1
<b>IHR coordination, communication and advocacy</b>	P.2.1 A functional mechanism is established for the coordination and integration of relevant sectors in the implementation of IHR	1
<b>Antimicrobial resistance</b>	P.3.1 Antimicrobial resistance detection	1
	P.3.2 Surveillance of infections caused by resistant pathogens	1
	P.3.3 Health-care associated infection prevention and control programmes	1
	P.3.4 Antimicrobial stewardship activities	1
<b>Zoonotic diseases</b>	P.4.1 Surveillance systems are in place for priority zoonotic diseases/pathogens	4
	P.4.2 Veterinary or animal health workforce	4
	P.4.3 Mechanisms for responding to zoonoses and potential zoonoses are established and functional	2
<b>Food safety</b>	P.5.1 Mechanisms are established and functioning for detecting and responding to foodborne disease and food contamination	1
<b>Biosafety and biosecurity</b>	P.6.1 A whole-of-government biosafety and biosecurity system is in place for human, animal and agriculture facilities	1
	P.6.2 Biosafety and biosecurity training and practices	1
<b>Immunization</b>	P.7.1 Vaccine coverage (measles) as part of national programme	2
	P.7.2 National vaccine access and delivery	4
<b>National laboratory system</b>	D.1.1 Laboratory testing for detection of priority diseases	4
	D.1.2 Specimen referral and transport system	2
	D.1.3 Effective modern point-of-care and laboratory-based diagnostics	2
	D.1.4 Laboratory quality system	1
<b>Real-time surveillance</b>	D.2.1 Indicator- and event-based surveillance systems	4
	D.2.2 Interoperable, interconnected, electronic real-time reporting system	3
	D.2.3 Analysis of surveillance data	4
	D.2.4 Syndromic surveillance systems	4
<b>Reporting</b>	D.3.1 System for efficient reporting to the World Health Organization, the Food and Agriculture Organization, and the World Organisation for Animal Health	2
	D.3.2 Reporting network and protocols in country	2
<b>Workforce development</b>	D.4.1 Human resources are available to implement IHR core capacity requirements	1
	D.4.2 A field epidemiology training programme or other applied epidemiology training programme is in place	2
	D.4.3 Workforce strategy	2

<b>Preparedness</b>	R.1.1 A multi-hazard national public health emergency preparedness and response plan is developed and implemented	2
	R.1.2 Priority public health risks and resources are mapped and utilized	2
<b>Emergency response operations</b>	R.2.1 Capacity to activate emergency operations	2
	R.2.2 Emergency operations centre operating procedures and plans	2
	R.2.3 Emergency operations programme	2
	R.2.4 Case management procedures are implemented for IHR relevant hazards	2
<b>Linking public health and security authorities</b>	R.3.1 Public health and security authorities (e.g. law enforcement, border control, customs) are linked during a suspected or confirmed biological event	4
<b>Medical countermeasures and personnel deployment</b>	R.4.1 A system is in place for sending and receiving medical countermeasures during a public health emergency	2
	R.4.2 A system is in place for sending and receiving health personnel during a public health emergency	2
<b>Risk communication</b>	R.5.1 Risk communication systems (plans, mechanisms, etc.)	2
	R.5.2 Internal and partner communication and coordination	2
	R.5.3 Public communication	2
	R.5.4 Communication engagement with affected communities	1
	R.5.5 Dynamic listening and rumour management	3
<b>Points of entry</b>	PoE.1 Routine capacities are established at points of entry	1
	PoE.2 Effective public health response at points of entry	1
<b>Chemical events</b>	CE.1 Mechanisms are established and functioning for detecting and responding to chemical events or emergencies	1
	CE.2 An enabling environment is in place for management of chemical events	1
<b>Radiation emergencies</b>	RE.1 Mechanisms are established and functioning for detecting and responding to radiological and nuclear emergencies	1
	RE.2 An enabling environment is in place for management of radiation emergencies	1



# PREVENT

## National legislation, policy and financing

### Introduction

The International Health Regulations (2005) (IHR) provide obligations and rights for States Parties. In some States Parties, implementation of the IHR may require new or modified legislation. Even if a 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 in a more effective manner. Implementing legislation could serve to institutionalize and strengthen the role of IHR and operations within the State Party. It can also facilitate coordination among the different entities involved in their implementation. Policies that identify national structures and responsibilities as well as the allocation of adequate financial resources are also important.

### Target

*States Parties to have an adequate legal framework to support and enable the implementation of all of their obligations and rights to comply with and implement the IHR (2005). In some States Parties, implementation of the IHR (2005) may require new or modified legislation. Even where new or revised legislation may not be specifically required under the State Party's legal system, States may still choose to revise a few legislations, regulations or other instruments in order to facilitate their implementation and maintenance in a more efficient, effective or beneficial manner. States Parties to ensure the provision of adequate funding for IHR implementation, through the national budget or another mechanism.*

### Afghanistan level of capabilities

The 2003 Constitution of Afghanistan, particularly articles 52 and 53, addresses public health. Article 52 stipulates that the State shall provide free preventive health care and treatment of disease and medical facilities according to provision of law; and Article 53 stipulates that the State shall adopt necessary measures to regulate medical services, and provide financial aid to survivors, martyrs and missing persons and for reintegration of disabled and handicapped persons. A Public Health Law was endorsed in 2009, no review has taken place to ensure it supports IHR implementation.

The country also has legislation, regulations, administrative requirements, and other governmental instruments governing some IHR-related areas, although these are not sufficient to facilitate the full implementation of IHR, for example, the national IHR focal point (NFP) has been designated by a ministerial decision but their functions are not yet in place.

The Afghanistan National Disaster Management Authority (ANDMA) is the main body to respond to emergencies. The MoPH leads the response to public health emergencies with the support of other ministries, if needed. National emergency preparedness and response (EPR) committees, supported by legislation, are in place in the provinces. A committee at the level of director from the different sectors needs to be established to monitor and support IHR implementation. A National All-Hazard Emergency Response Plan in Health (NERPH) is in place, although plans are not in place at the provincial level.

While an Animal Health Law has been drafted but not yet approved, a memo was signed in 2010 between the animal and human sectors to establish a joint committee with defined terms of reference (ToR) for the response to avian influenza. The roles and responsibilities have since been expanded to include

other zoonotic diseases following some disease outbreaks in the country, and other sectors are now involved in this Committee. Similar committees are in place at provincial level to govern activities related to zoonotic diseases. There is no legal background that supports compensation for owners of infected animals. Notification of zoonotic diseases by farmers is mandatory, but implementation of the related law is insufficient.

The Food Law has recently been approved, but is yet to be implemented. A food control authority will be established with clear ToR under this law.

A national infection prevention policy was approved in 2010. However, there is no national policy on antimicrobial resistance (AMR) to regulate work related to this area with the involvement of the agriculture and animal sectors along with the human sector. In addition, a law and regulations related to the rational use of antibiotics is not in place.

Vaccine and immunization regulations are in place and regularly updated. However, policies to address immunization refusals are not in place.

A Memorandum of Understanding (MoU) was signed between Afghanistan and Iran in 2005 to cover health support between the two countries, and another MoU signed in 2007 relates to plant protection and quarantine. An agreement between Afghanistan and Pakistan is in place for cross-border surveillance and vaccination against poliomyelitis. Cross-border agreements with the other neighbouring countries concerning surveillance and response to public health events do not exist.

The Environmental Law was adopted in 2006. An environmental health policy based on this law was approved in 2010; a national environmental health strategy was also developed and approved in 2013. However, policies, laws and regulations to regulate surveillance, response and management related to chemical events and radiation emergencies are not in place.

Afghanistan has limited capacity to implement IHR. Full and effective implementation of existing legislation is needed, along with new laws to facilitate IHR implementation. Furthermore, the GoA needs to allocate a specific budget to support IHR activities.

## Recommendations for priority actions

- Establish a national committee of legal advisors and public health officers representing the different sectors relevant to IHR, including the IHR NFP, to review the national legislation, decrees, policies and administrative procedures to identify gaps and corrective measures to accelerate the implementation of IHR.

## Indicators and scores

### **P.1.1 Legislation, laws, regulations, administrative requirements, policies or other government instruments in place are sufficient for implementation of International Health Regulations - Score 1**

#### *Strengths and best practices*

- Afghanistan is committed to implementing the IHR; in addition to this JEE, an assessment of laws related to public health has been carried out.
- Awareness and willingness to establish legislation, policies and procedures is recognized by senior officials of the different sectors.
- Several laws, decrees and policies are in place to regulate many IHR technical areas.

### *Areas that need strengthening/challenges*

- Governmental human and financial resources are limited to support the implementation of IHR capacities.
- Technical capacity to develop the needed laws and regulations to support IHR implementation is also limited. No assessment has reviewed the functionality of existing laws, acts, procedures or policies.
- Legal sectors are not well informed about IHR and its requirements.

### **P.1.2 The State can demonstrate that it has adjusted and aligned its domestic legislation, policies and administrative arrangements to enable compliance with the IHR - Score 1**

#### *Strengths and best practices*

- The country ensures coordination of the legal and regulatory frameworks between sectors. All relevant sectors are invited by the Ministry of Justice to discuss and review any new draft law.

#### *Areas that need strengthening/challenges*

- Existing laws, administrative procedures and policies do not enable full implementation of IHR capacities. No assessment has taken place to identify needed laws and regulations, or to adjust those existing to facilitate implementation of IHR.

# IHR coordination, communication and advocacy

## Introduction

The effective implementation of the IHR requires multisectoral/multidisciplinary approaches through national partnerships for efficient and alert response systems. Coordination of nationwide resources, including the designation of a NFP IHR, which is a national centre for IHR communications, is a key requisite for IHR implementation.

### Target

*The national IHR focal point to be accessible at all times to communicate with the WHO regional IHR contact points and with all relevant sectors and other stakeholders in the country. States Parties to provide WHO with contact details of their national IHR focal points, as well as continuously update and annually confirm them.*

## Afghanistan level of capabilities

An interministerial committee was established in 2008 to enhance coordination between the MoPH and governmental and nongovernmental sectors. At provincial level, the same structure exists. There is a health service provision agreement related to terrorist attacks between the MoPH, Ministry of Defence, Ministry of Interior, National Directorate of Security, Ministry of Finance and Ministry of Higher Education; a memorandum between public health and security sectors for joint response to terrorist attacks is also in place.

In addition, a list of IHR-related experts is available, and a zoonotic committee has been established with clear terms of reference.

Data are shared weekly between the MoPH and MAIL.

## Recommendations for priority actions

1. Establish an IHR multisectoral coordination committee with high-level representation and defined ToRs.
2. Continue ongoing, regular advocacy activities for all relevant stakeholders to promote awareness of IHR implementation.
3. Develop a national plan of action for IHR implementation based on the results of the JEE.

## Indicators and scores

### P.2.1 A functional mechanism is established for the coordination and integration of relevant sectors in the implementation of IHR - Score 1

#### Strengths and best practices

- The NFP IHR has been established.
- During public health events, especially communicable disease-related outbreaks, good coordination among different stakeholders can be seen.

- Information exchange is regular and sharing of surveillance data by mail takes place on a weekly basis.
- A semi-annual dissemination workshop is carried out between the MoPH and MAIL.

#### ***Areas that need strengthening/challenges***

- Additional and sustainable advocacy between relevant sectors is needed. Coordination mechanisms between relevant ministries are not in place.
- Standard operating procedures (SOPs) to be developed for IHR communication between the World Health Organization (WHO) and IHR NFP with defined communication mechanisms and protocols.

# 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. The evolution of antimicrobial resistance is occurring 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

*Support work being coordinated by WHO, FAO, and OIE to develop an integrated and global package of activities to combat antimicrobial resistance, spanning human, animal, agricultural, food and environmental aspects (i.e. a one-health approach), including: a) Each country has its own national comprehensive plan to combat antimicrobial resistance; b) Strengthen surveillance and laboratory capacity at the national and international level following agreed international standards developed in the framework of the Global Action Plan, considering existing standards and; c) Improved conservation of existing treatments and collaboration to support the sustainable development of new antibiotics, alternative treatments, preventive measures and rapid, point-of-care diagnostics, including systems to preserve new antibiotics.*

## Afghanistan level of capabilities

Afghanistan does not have the capabilities required to address AMR. There is no planned national action plan to combat AMR and inadequate knowledge about the AMR Global Action Plan. AMR detection, surveillance and stewardship programmes are not in place.

## Recommendations for priority actions

1. Develop a national plan for the detection and reporting of AMR pathogens that includes both animal and human health.
2. Develop and ensure availability of an infection prevention and control policy, operational plan and SOPs at all health facilities.
3. Train health workers on health care-associated infection (HCAI) prevention and control programmes.
4. Strengthen the AMR surveillance system and ensure it is connected to the national surveillance system, and able to share data in real time.

## Indicators and scores

### P.3.1 Antimicrobial resistance detection - Score 1

#### Strengths and best practices

- Afghanistan has the capacity in place to detect most of the priority pathogens at the Central Public Health Laboratory such as *Escherichia coli*, *Staphylococcus aureus*, *Salmonella* spp., *Shigella* spp.

- Detection of AMR is carried out using the recommended standard methods, in which the country is actively participating.

#### **Areas that need strengthening/challenges**

- A national plan for the detection and reporting of AMR pathogens should be developed, to include both animal and human health.
- AMR detection at all public health laboratories at provincial level should be improved.

### **P.3.2 Surveillance of infections caused by AMR pathogens - Score 1**

#### **Strengths and best practices**

- The Central Public Health Laboratory is actively participating in AMR surveillance, including some of the provincial public health laboratories.

#### **Areas that need strengthening/challenges**

- The AMR surveillance system should be strengthened, ensuring that it is linked to the national surveillance system and able to share data in real time on priority pathogens.

### **P.3.3 Healthcare associated infection prevention and control programmes - Score 1**

#### **Strengths and best practices**

- Most health facilities are involved in HCAI prevention and control programmes, although this is not fully documented.
- Isolation facilities are available at health facilities.
- Trained infection prevention and control professionals are available at most health facilities.

#### **Areas that need strengthening/challenges**

- No national plan for HCAI programmes has been approved.
- Implementation of the HCAI guidelines is needed at national level, including continuing training and monitoring of implementation.

### **P.3.4 Antimicrobial stewardship activities - Score 1**

#### **Strengths and best practices**

- For health facilities that have access to laboratories doing AMR, while prescription is based on the laboratory results, more needs to be done to strengthen this practice.
- Antibiotic use in animals requires a prescription, which is being respected in most regions.

#### **Areas that need strengthening/challenges**

- A national plan should be drawn up for antimicrobial stewardship.
- Prescription should be mandatory when buying antibiotics from the pharmacy.
- National guidance on appropriate use of antibiotics should be developed and disseminated.

#### **Relevant documentation**

None provided.

# Zoonotic diseases

## Introduction

Zoonotic diseases are communicable diseases and microbes spreading between animals and humans. These diseases are caused by bacteria, viruses, parasites, and fungi that are carried by animals, and an insect or inanimate vector may be needed to transfer the microbe. Approximately 75% of recently emerging infectious diseases affecting humans are of animal origin; approximately 60% of all human pathogens are zoonotic.

### Target

*Adopted measured behaviours, policies and/or practices that minimize the transmission of zoonotic diseases from animals into human populations.*

## Afghanistan level of capabilities

Agriculture is an important contributor to the Afghan economy. While the country imports most of its needs of livestock, meat and meat products, and grain, it exports fruit and vegetables as well as animal products such as wool.

Zoonotic disease committees were established at the central and provincial levels in 2010 following the 2009 pandemic influenza outbreak as joint ventures between the MoPH and MAIL. The wildlife sector is under the authority of the National Environmental Protection Agency and focal points from this agency need to be included in the committees. Leadership is alternated every six months between the two sectors. The committees meet for routine and ad hoc meetings and are charged with coordinating surveillance and response for zoonotic diseases in the country. Information sharing and joint response is currently conducted more efficiently at the provincial level. In addition, a National Zoonotic Disease Strategy aimed at improving zoonotic disease surveillance and response is currently awaiting review by external experts before being signed and ratified by the MoPH and MAIL. It is worth mentioning that the NGO sector plays a significant role in the vaccination and treatment of animals.

The Afghan public health and animal health authorities have jointly identified the following zoonotic diseases as priorities: anthrax, avian influenza, brucellosis, Crimean-Congo haemorrhagic fever (CCHF), and rabies. Passive surveillance for these diseases is currently conducted by both the MoPH and MAIL. Each surveillance system lists these five priority diseases on the notifiable disease list. However, and especially at the central level, information sharing seems slow, hence affecting timely response. Information sharing and joint response appears to function better at the provincial level. Another weakness is the lack of quarantine facilities at points of entry to hold imported live animals until they are screened.

Laboratory capacity to detect all the priority zoonotic diseases exists at both the human and animal health laboratories at the central level. The central veterinary laboratory has capacity to detect Brucella bacterium, antibodies against Brucella, and differentiate between wild type and vaccine Brucella strains. This laboratory also conducts vaccine effectiveness studies in vaccinated livestock. The veterinary laboratory is also equipped to conduct rabies diagnosis using molecular and antigenic techniques. The veterinary laboratory assists public health laboratories in testing human samples for brucellosis and rabies.

It appears that Afghanistan has a capable veterinary workforce. Veterinarians are mostly trained at Kabul University, although other programmes provide training for veterinary assistants and technicians. The



veterinary workforce is distributed across the central and provincial levels. However, academic and other trainings do not focus on zoonotic diseases. One veterinarian has completed the field epidemiology training programme (FETP). Disease-specific workshops are commonly held with attendance from the veterinary and public health sectors.

## Recommendations for priority actions

1. Finalize and ratify the National Zoonotic Disease Strategy, which should:
  - a. sustain the current surveillance systems and evolve towards more active surveillance and electronic information sharing;
  - b. improve the current joint response mechanism;
  - c. improve multisectoral cooperation at the national level;
  - d. devise a compensation plan to encourage reporting of disease from farmers.
2. Devise a plan to include zoonotic diseases in the veterinary workforce academic training, special workshops, and as part of the FETP.

## Indicators and scores

### P.4.1 Surveillance systems in place for priority zoonotic diseases/pathogens - Score 4

#### *Strengths and best practices*

- A list of priority zoonotic diseases is available.
- Passive surveillance is in place for all priority diseases in both the animal and public health sectors.
- Zoonotic diseases are reported by both sectors as part of the list of notifiable diseases.

#### *Areas that need strengthening/challenges*

- The mechanism for sharing surveillance data across sectors, especially at the central level, needs improvement.
- Surveillance for live animals at points of entry is lacking due to an absence of quarantine facilities.
- Wildlife and entomology, etc. should be involved in surveillance in animal reservoirs and vectors.
- Joint agreements should be signed neighbouring countries to reduce the risk of transboundary zoonotic diseases.

### P.4.2 Veterinary or animal health workforce - Score 4

#### *Strengths and best practices*

- A sufficient veterinary workforce is available.

#### *Areas that need strengthening/challenges*

- Short in-service courses on One Health and zoonotic disease surveillance for public health and animal health professionals should be developed at various levels.
- One Health and zoonotic disease training should be incorporated into the academic education of veterinarians.
- More veterinarians should be included in FETP.

### **P.4.3 Mechanisms for responding to zoonoses and potential zoonoses are established and functional - Score 2**

#### ***Strengths and best practices***

- Zoonotic disease committees at central and provincial levels are established.

#### ***Areas that need strengthening/challenges***

- The National Zoonotic Disease Strategy should be finalized.

# 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

*States Parties should have surveillance and response capacity for food and waterborne disease risks or events. It requires effective communication and collaboration among the sectors responsible for food safety and safe water and sanitation.*

## Afghanistan level of capabilities

Food safety is the responsibility of multiple Afghan ministries and departments. Stakeholders include the MoPH, MAIL, Ministry of Rural Rehabilitation and Development, Ministry of Commerce (MoC), and municipalities. This makes food safety in Afghanistan a multisectoral area and hence all aspects of food safety must be handled using a multisectoral approach.

Currently, aspects of food safety management are scattered among different stakeholders. The MoPH's Environmental Health Department and municipalities share the responsibility of issuing licences to food vending establishments and food workers. They are also in charge of inspecting food vending establishments. Since a large portion of Afghan foodstuffs is imported, MoC and MAIL are involved in inspecting imported food items. However, inspection is currently limited to monitoring wholesomeness, expiry dates, and certificates of origin. Occasionally, MAIL laboratories test imported foodstuffs if contamination by microbiological or other agents is suspected. The MoPH occasionally investigates foodborne disease through surveillance reports coming in under "syndromic event" reports. MAIL has several projects aimed at food safety, such as testing aflatoxins in milk. Of major concern are street vendors as they are currently not regulated by any authority.

Another major concern is the lack of quarantine facilities at points of entry where live animals can be held until appropriate testing has been conducted. The uncontrolled entry of animals through unofficial border passes is also a concern. Recently, and due to Afghanistan's induction into the World Trade Organization, a Food Law was passed. This law covers most aspects of food safety and mandates the establishment of a Food Control Authority and a Food Control Board that are charged with various aspects of food safety. In addition, an MoU exists between the MoPH and MAIL.

Public health surveillance for foodborne disease is currently grouped under syndromic events reporting. When unusual events are reported, the MoPH dispatches teams to investigate and verify them. An epidemiological investigation is carried out and samples are collected from patients and sent for testing at the public health labs. There is a potential for under-reporting/under-detection of foodborne diseases given the current surveillance system and merging foodborne illnesses under "syndromic events". It is recommended that foodborne diseases should be an independent category under the notifiable disease

list in order to determine the burden of foodborne illness. The necessary case definitions should accompany this.

Multisectoral response to foodborne events is limited. No formal mechanism is in place and intersectoral cooperation is ad hoc. Limited health promotion campaigns for food safety are conducted, thus some effort directed at raising awareness is advisable. Laboratory capacity to test for biological contaminants exists at both the public health and animal health laboratories. There is no laboratory capacity to test for chemical and other non-biological contaminants of food or causes of foodborne diseases (heavy metals, pesticides, insecticides, etc.) at the MoPH laboratories, but some capacity exists under the veterinary laboratory and is due to be expanded with the purchase of new equipment.

## Recommendations for priority actions

1. Establish the food control authority as mandated by the Food Safety Law. The authority should include focal points from all relevant sectors including, but not limited to the MoPH (epidemiology, laboratory, environmental health); MAIL (epidemiology, laboratory); MoC; and municipalities, waterworks and sanitation.
2. Improve the current surveillance system to include foodborne illness as a notifiable disease. Surveillance should also include the ability to detect pathogens and contaminants in food.
3. Develop SOPs for the investigation and response to foodborne diseases and train involved personnel on implementing these SOPs.

## Indicators and scores

### P.5.1 Mechanisms are established and functioning for detecting and responding to foodborne disease and food contamination - Score 1

#### *Strengths and best practices*

- A Food Law exists as well as an MoU between the MoPH and MAIL.
- Laboratory capacity exists for the detection of microbiological contaminants and disease agents in the MoPH and MAIL, as well as some capacity to test for non-biological agents at MAIL laboratories.
- The private sector is involved in food safety.

#### *Areas that need strengthening/challenges*

- The Food Control Authority should be established to be in charge of developing policies and SOPs covering all aspects of food safety as per guidance of the Food Law.
- Surveillance, multisectoral response, and information sharing for foodborne diseases needs to be improved.
- The illegal import of foodstuffs and live animals needs to be addressed.
- Rules and responsibilities are not well delineated across sectors.
- No mechanism exists for early detection of foodborne events.
- Public awareness on food safety is low.

# 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 national biosafety and biosecurity system is in place, to ensure that: especially dangerous pathogens are identified, held, secured and monitored in a minimal number of facilities according to best practices; biological risk management training and educational outreach are 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 are in place as appropriate.*

## Afghanistan level of capabilities

The Central Public Health Laboratory (CPHL) for human health using biosafety level 2 (BSL 2) is responsible for collecting, testing and storing dangerous pathogens. A well-established national veterinary laboratory for animal health is responsible for collecting, testing and storing dangerous pathogens related to animal health. The country also has the capacity to transport dangerous pathogens, e.g. polio samples, to reference laboratories for testing through WHO support. Trained laboratory personnel in biosafety and biosecurity exist, mostly at national and regional level where collection and packaging of dangerous pathogens is done. An important element learnt from the JEE is the good collaboration that exists between human and animal health laboratories at central level.

### Key strengths

- Basic biosafety and biosecurity trainings are conducted for laboratory staff (inside and outside of Afghanistan)
- Standard operating procedures and flow charts are developed and in place at the laboratories.
- Risk assessment on biosafety and biosecurity has been conducted.
- A waste management system is in place, including Incinerators.
- To improve biosafety and biosecurity, 43 physical laboratory structures were renovated.

## Areas that need strengthening

- The country needs a nationwide biosafety/biosecurity plan that will address procedures associated with physical biosafety/biosecurity, staff security, sample transportation safety and security, a dangerous pathogen inventory, and information security at all levels.
- Comprehensive national biosafety and biosecurity legislation/regulations are also lacking to guide legal oversight of biosafety/biosecurity issues.
- Lower-level laboratories (regional/provincial/district) including private laboratories need to build capacity in biosafety and biosecurity, as to date the emphasis has been mainly on the two laboratories (CPHL and the national veterinary health laboratory) at the central level.
- Sample transportation from lower-level to higher-level laboratories within the country needs to be improved as currently no designated courier is in place and samples are transported using private companies who do not follow standard biosafety/biosecurity procedures.
- There is a need to strengthen monitoring and regulations guiding private laboratories in relation to biosafety/biosecurity since the country has a significant number of private laboratories for human health that lack standard biosafety/biosecurity monitoring.
- While 43 have already been renovated, improvement of physical structures of laboratories is needed to enhance biosafety/biosecurity.
- Documentation and inventory of dangerous pathogens collected and housed within the country is needed.

## Recommendations for priority actions

- Strengthen the biosafety/biosecurity comprehensive system to involve human, animal and agriculture sectors countrywide, not only at central level, but also at lower-level laboratories since these are involved in sample collection and packaging.
- Implement pathogen control measures including an updated record and inventory of pathogens within facilities that store or process dangerous pathogens and toxins.
- Develop a national biosafety and biosecurity coordination/guiding document, including legislation/regulations to guide countrywide biosafety/biosecurity issues, including monitoring of private laboratories.

## Indicators and scores

### **P.6.1 Whole-of-government biosafety and biosecurity system is in place for human, animal and agriculture facilities - Score 1**

#### *Strengths and best practices*

- The country already has an established biosafety/biosecurity plan for the CPHL and the national veterinary health laboratory; this plan needs to reach down to lower-level laboratories nationwide.
- There is a good collaboration between human health and animal health at national level with regards to biosafety/biosecurity.
- SOPs for biosafety and biohazard materials are in place.

#### *Areas that need strengthening/challenges*

- The agriculture sector should also be involved in the comprehensive national biosafety/biosecurity plan as it also deals with dangerous toxins that pose a biosafety/biosecurity risk to the country.

- A comprehensive national biosafety/biosecurity plan should include human, animal, and agriculture sectors and be implemented at all levels within the country, not only at national level.
- An audit is needed of the laboratory capacity available in the country, which also involves private laboratories, for proper record-keeping, understanding their capacities, licencing, and their monitoring.
- The country needs to have an updated record and inventory of the dangerous pathogens and toxins within facilities that store them.
- Transportation of samples from lower to national level needs to meet biosafety/biosecurity standards as current private courier services do not use the standard procedures.

## **P.6.2 Biosafety and biosecurity training and practices - Score 1**

### ***Strengths and best practices***

- Trained laboratory personnel are available in biosafety and biosecurity, mostly at national and regional level where collection and packaging of dangerous pathogens is done.
- WHO supports the training of laboratory personnel on biosafety/biosecurity.
- Basic biosafety/biosecurity trainings have been conducted for laboratory staff (inside and outside of Afghanistan).

### ***Areas that need strengthening/challenges***

- Training needs to reach lower level laboratories (regional/provincial/district).
- The country should plan exercises and practice on implementing the biosafety/biosecurity plan.

# Immunization

## Introduction

Immunizations are estimated to prevent more than 2 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.

### Target

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

## Afghanistan level of capabilities

In Afghanistan, Expanded Programme on Immunization (EPI) services were initiated in 1978 under support from the United Nations Children’s Fund (UNICEF); in October 2002, the National EPI was established within the MoPH structure. Currently, nine vaccines are included in the national routine EPI, i.e. Bacillus Calmette–Guérin (BCG), diphtheria, Haemophilus influenzae type B (Hib), hepatitis B, measles, pertussis, polio, tetanus, and pneumococcal vaccine. The national EPI target population is children under one year old and women of child bearing age for tetanus toxoid vaccine. A polio programme is present under WHO.

Two strategies are in use to provide EPI services: (1) The outline strategy (fixed or outreach); and (2) supplemental immunization activities, which includes the use of national immunization days, and measles and tetanus toxoid campaigns.

The national cold room receives WHO prequalified vaccines that are then distributed to the seven regional cold rooms. Each province receives vaccines from its regional cold room and distributes them to health facilities. The standard cold chain equipment along with temperature monitoring devices are being used at each level (national, regional, provincial and health facility). Afghanistan has never experienced a vaccine stock-out.

The distribution of vaccines from national to facility level is supported by UNICEF. This also allows access to challenging/ conflict areas for vaccination services, although accessibility of some districts and health facilities for immunization service delivery is restricted due to ongoing conflict, cultural problems, unequal geographic distribution of health facilities, transportation challenges, and minimal workforce motivation.

Both paper-based and electronic (soft) copies of data collection and reporting tools are in use depending on the level. National EPI receives the soft copy of routine EPI data from provincial EPI management teams on a quarterly basis, while the latter receive paper-based reports from health facilities on a monthly basis. Improvement is needed in the quality of immunization data collection, reporting, analysis and use at all levels for informed decision-making and planning purposes. The quality of administrative data also needs to be improved, in addition to addressing issues with the denominator to estimate vaccine coverage which could be improved through surveys on a representative sample. Surveys of coverage show varying results, e.g. EPI coverage survey 2013 (58.8%); demographic health survey (60.4%), the Annual Health Survey (70.4%) and the administrative data of 2015 which show a coverage of 90%. In addition, the denominators are based on a standard population growth rate of 2.4% since the last census conducted in 1978. Moreover, since the denominator does not take into account displaced populations, nomads and “returnees”, it may not reflect the true picture of immunization coverage. The denominator estimation should therefore be updated and factor in such populations for more reliable coverage estimation.



## Recommendations for priority actions

- Support microplanning through the Reaching Every District strategy using community health workers (CHW) and BASIC tools to improve immunization services and immunization data quality and use.
- Improve immunization coverage and equitable access by upgrading health sub-centres to become EPI fixed centres, and increasing the vaccinator workforce (200 new vaccinators to be trained).
- Improve denominator estimation through surveys to take into account the internal displaced population, nomads and returnees.

## Indicators and scores

### P.7.1 Vaccine coverage (measles) as part of national programme - Score 2

#### *Strengths and best practices*

- The country is doing well in reaching the target population for vaccination, even in challenging areas.

#### *Areas that need strengthening/challenges*

- The denominator estimation is challenging, due to population structure and movement.
- Based on the most recent demographic health survey, measles vaccination coverage was 60.4%, which equates to limited capacity (measles taken as a proxy); plans are in place to reach 90–95% in the next five years as this is a priority already identified in the country.

### P.7.2 National vaccine access and delivery - Score 4

#### *Strengths and best practices*

- The country has access to 60–79% of districts, despite the challenges they are facing in terms of conflicts, cultural beliefs, and hard-to-reach areas, and facilitated access to conflict areas through international agency personnel for vaccination.
- UNICEF supports the Government in the distribution of vaccines from national to facility level under cold chain conditions. The standard cold chain equipment along with temperature monitoring devices are being used at each level (national, regional, provincial and health facility).
- The country has never experienced a stock-out of vaccines at the central level; however there has been some temporary shortages at facility level due to logistic challenges.

#### *Areas that need strengthening/challenges*

- The country needs to have in place a mechanism to ensure sustainable supply of vaccines to lower levels regardless of the presence/absence of international partners.

# DETECT

## National laboratory system

### Introduction

Public health laboratories provide essential services including disease and outbreak detection, emergency response, environmental monitoring and disease surveillance. Provincial and regional public health laboratories can serve as a focal point for a national system, through their core functions for human, veterinary and food safety. This covers 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.

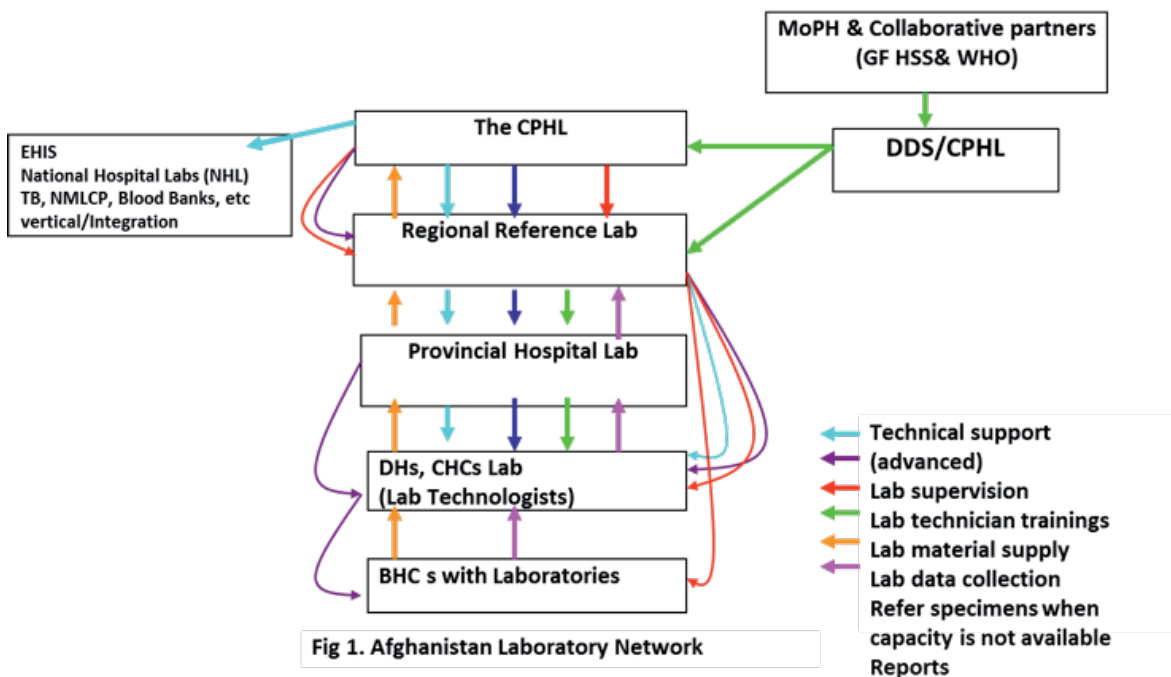
### Target

*Real-time biosurveillance with a national laboratory system and effective modern point-of-care and laboratory-based diagnostics.*

### Afghanistan level of capabilities

Afghanistan’s system of public health/clinical/veterinary microbiological laboratories partly follows the administrative and health-care organizational structure. At the national level, the CPHL provides reference, confirmation testing and some laboratory surveillance functions for the human health sector (Fig. 1). On the veterinary health side, similar functions are provided by the Central Veterinary Directorate reference laboratory.

**Figure 1. Afghanistan laboratory network for human health services**



The CPHL operates under the supervision of the MoPH Directorate for Diagnostic Services. On the human health side, a tiered system of laboratories exists, in which laboratories with differing levels of capability exist at the national hospital, regional reference and provincial hospital, district hospital and comprehensive health centre level. Some functions, mainly specimen collection and referral, are carried out all the way down to the basic health centres. The regional reference laboratories reflect an earlier administrative division of the country into four regions, which is in principle dissolved, but some structures remain.

While the tiered laboratory system as described above may appear clear, the true situation on the ground is more complex. As the health system is, to a large extent, operated by contracting to NGOs, United Nations and humanitarian aid organizations or private entities – and largely funded by foreign assistance/donors – governmental control of the different levels and their functions is weak. The operational organizations determine the laboratory functions based mainly on their immediate needs, which does not necessarily result in a clear division of roles and responsibilities, necessary for a truly national laboratory system. International partners have invested substantial efforts to work together with the Afghan laboratory sector in training, assessment and capacity-building. Due to the structure of health funding, the sustainability of the tiered laboratory system, especially the higher level, remains a significant challenge.

Microbiological laboratory functions, which are operated at the health unit level, mainly serve patient care and clinical management decisions. This is the case for both human and veterinary health laboratory services. Specimen referral chains become long and slow for most samples that are transported from rural areas, as they are far from major cities or hard to reach. Sample integrity is also an issue due to long transportation times. Thus many of the reference functions, especially those provided by CPHL, do not have a direct effect on patient management but mainly serve a surveillance function. However, these data do not automatically enter the Evaluation and Health Information System (EHIS) or other electronically maintained data systems to serve surveillance purposes.

Laboratories exist in both the private and public sector; those in the private sector are required to be licensed by the Directorate for Diagnostic Services. However, this is mainly an administrative requirement, as no requirements for technical competence are actually imposed on laboratories to be licensed.

The laboratory system is capable of performing eight core tests (brucellosis, CCHF, cholera, HIV, tuberculosis and typhoid) plus other bacteriological tests. There is a national quality control system, but this is only used at the national level CPHL and should be extended to the regional – or preferably even provincial level, and eventually upgraded to meet international standards.

A significant challenge to providing high-quality laboratory services is the lack of adequately trained laboratory professionals. According to the documentation provided, there are no trained postgraduate histopathologists, virologists, microbiologists or mycologists in the country. Laboratory technical training and education is available but of variable quality, and most often not independently verified.

A very positive recent development is an in-depth assessment of the Afghan laboratory system, conducted in 2014–2015 with support from international partners, using the WHO Laboratory Assessment Tool. Based on this assessment, a cross-sectoral National Laboratory Working Group was formed and, through a set of workshops, a national laboratory policy was drafted and finalized. This document contains a comprehensive list of goals that could be used to form short- and long-term plans for the development of the public health laboratory system. However, the policy is yet to be endorsed by the national government to become an official guiding document.

## Recommendations for priority actions

- Institute the requirement for immediate routine reporting of laboratory diagnostic results to the infectious disease surveillance department.

- Finalize and endorse the national laboratory policy: develop annual national laboratory strategic and operational plans, which should be reviewed and updated at annual budget cycles.
- Develop SOPs for immediate data exchange and joint analysis of zoonotic, food- and waterborne diseases between the MoPH and MAIL.
- Strengthen capacities of regional/provincial laboratories.

## Indicators and scores

### D.1.1 Laboratory testing for detection of priority diseases - Score 4

#### *Strengths and best practices*

- The national laboratory system is capable of conducting seven of the ten core tests.
- SOPs are available for some diseases.
- Guidelines for quality control are available.
- A draft national laboratory policy exists.
- Training records are maintained.

#### *Areas that need strengthening/challenges*

- Coordination or exchange programmes are poor among each level and the private sector.

### D.1.2 Specimen referral and transport system - Score 2

#### *Strengths and best practices*

- A network of 500+ focal points is available for specimen collection in the case of a suspected outbreak.
- The polio network has excellent capacity for specimen transport.

#### *Areas that need strengthening/challenges*

- A system is in place to transport specimens to national laboratories from less than 50% of intermediate level/districts in the country for advanced diagnostics.
- The transport of specimens of especially dangerous pathogens is not covered.
- Current transport practices do not meet international standards for cold chain management and speed.

### D.1.3 Effective modern point-of-care and laboratory-based diagnostics - Score 2

#### *Strengths and best practices*

- Minimal, laboratory diagnostic capability exists within the country, but no tier-specific diagnostic testing strategies are documented.
- Point-of-care diagnostics are being used for the country's priority diseases.<sup>2</sup>
- Multiple trainings have been conducted by international partners and support for rapid detection technology has been provided.

#### *Areas that need strengthening/challenges*

- Coordination or exchange programmes among each level and the private sector is poor.
- There is no sustainable equipment maintenance system.
- Procurement of reagents is uncertain.

<sup>2</sup> True point-of-care (bedside) testing is not available, but laboratory-operated rapid tests are.

#### D.1.4 Laboratory quality system - Score 1

##### *Strengths and best practices*

- The development of national quality control standards has started, but is not yet at a sufficient level.

##### *Areas that need strengthening/challenges*

- Infrastructure is weak for biosecurity and -safety at all levels, although MoPH/MAIL guidelines and treatment protocols are available in some labs.
- Sustainable technical capacity is low (degrees in microbiology, familiarity with new techniques, equipment, etc.).
- There is no national accreditation body.
- A comprehensive national quality improvement system (quality control, quality assurance) needs to be set up, since there are no national laboratory quality standards.
- An equipment maintenance system is lacking.
- The waste management system is weak.

# Real-time surveillance

## Introduction

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

### Target

*Strengthened foundational indicator- and event-based surveillance systems that are able to detect events of significance for public health, animal health and health security; improved communication and collaboration across sectors and between subnational, national and international levels of authority regarding surveillance of events of public health significance; improved country and regional capacity to analyse and link data from and between strengthened, real-time surveillance systems, including interoperable, interconnected electronic reporting systems. This can 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 the OIE standards.*

## Afghanistan level of capabilities

In Afghanistan, indicator-based surveillance is a component of the Disease Early Warning System (DEWS), and reports on 15 priority infectious diseases from sentinel sites in public and private health facilities. A weekly report is forwarded from health facilities to the provincial DEWS officer. Analysis of weekly data is done at all levels, especially at provincial and regional level. Outbreak detection, verification, investigation and response is carried out through the event-based surveillance component of DEWS-Plus. Event-based surveillance investigates the alerts reported by focal points in sentinel sites. The system investigates all alerts (including rumours) from health facilities and communities and provides initial response to diseases outbreaks.

## Recommendations for priority actions

1. Strengthen capacity-building of the surveillance staff on emerging and re-emerging diseases.
2. Strengthen the laboratory surveillance system.
3. Strengthen the inter- and intrasectoral coordination mechanism through regular forums (MoPH and MAIL, Ministry of Security and other relevant stakeholders).

## Indicators and scores

### D.2.1 Indicator- and event-based surveillance systems - Score 4

#### Strengths and best practices

- Indicator- and event-based surveillance is available, including at the subnational level. More than 95 districts are covered by the surveillance system; surveillance sites also extend to private health facilities and the community.
- The surveillance systems utilize almost all mechanisms for collecting data.

- All surveillance staff, including health facility focal points, have received basic training on epidemiology, surveillance, emerging and re-emerging diseases.
- Indicator- and event-based surveillance and laboratory surveillance data are shared with stakeholders on a regular basis and uploaded in the MoPH and surveillance websites.
- Surveillance guidelines, disease lists, case definitions, outbreak investigation line lists and surveillance monitoring check lists are regularly updated.

#### **Areas that need strengthening/challenges**

- There is a need to strengthen event-based surveillance using other platforms for sourcing data such as the Internet.
- SOPs should be developed for event-based surveillance.

### **D.2.2 Interoperable, interconnected, electronic real-time reporting system - Score 3**

#### **Strengths and best practices**

- An interoperable, interconnected, electronic reporting system is in place for either public health or veterinary surveillance systems.
- Most public health staff have been trained on disease surveillance systems.
- Public health staff at subnational level have the required skills to analyse surveillance data which will enable them to create information that can trigger action at that level.
- Electronic reporting is available at most levels.

#### **Areas that need strengthening/challenges**

- Sharing of information between sectors is still a challenge, and the system is not yet able to share data in real-time.

### **D.2.3 Analysis of surveillance data - Score 4**

#### **Strengths and best practices**

- CPHL uses standardized forms for reporting which are available in electronic format, functions are attributed to experts for analysing, assessing and reporting data.

#### **Areas that need strengthening/challenges**

- CPHL needs to develop a mechanism for sharing laboratory data with other sectors, especially MAIL.

### **D.2.4 Syndromic surveillance systems - Score 4**

#### **Strengths and best practices**

- The syndromic surveillance system is well established, fully functional and most health facilities are actively participating.
- Most health workers are trained on the system and use electronic reporting.

#### **Areas that need strengthening/challenges**

- Although reports are being generated, there is need to improve sharing of these with other ministries.

# 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.

### Target

*Timely and accurate disease reporting according to WHO requirements and consistent coordination with FAO and OIE.*

## Afghanistan level of capabilities

The country has identified the IHR NFP; OIE delegates and World Animal Health Information System national focal points; and a focal point linked to learning packages and best practices as provided by WHO, OIE and the Food and Agriculture Organization (FAO). It is in the process of developing and establishing protocols, processes, regulations, and/or legislation governing reporting. Responsibility for any outbreak, especially of zoonotic origin, is shared with MAIL. Investigation reports are shared with the relevant sectors, and the MoPH dialogues regularly with relevant agencies, viz OIE and WHO.

## Recommendations for priority actions

- Review the ToR of the IHR NFP and ensure that potential public health emergencies of international concern (PHEIC) are notified to WHO.
- Identify focal points in the different sectors and develop SOPs for information sharing related to potential PHEIC among these and the IHR NFP.
- Organize workshops involving the different stakeholders to train them on the use of the IHR Annex 2.<sup>3</sup>

## Indicators and scores

### D.3.1 System for efficient reporting to WHO, FAO and, OIE - Score 2

#### Strengths and best practices

- Afghanistan has identified the IHR NFP, OIE delegates and World Animal Health Information System national focal points; and a focal point linked to learning packages and best practices provided by WHO, OIE and FAO.
- A list of ministries and corresponding focal points that should participate in a response is available, and experts meets when a potential PHEIC is reported/detected.

#### Areas that need strengthening/challenges

- SOPs should be improved for reporting to WHO and OIE.

<sup>3</sup> WHO Guidance for the Use of Annex 2 of the International Health Regulations (2005), [www.who.int/ihr/revise/annex2\\_guidance.pdf?ua=1](http://www.who.int/ihr/revise/annex2_guidance.pdf?ua=1).



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

#### *Strengths and best practices*

- Afghanistan is in the process of developing and establishing protocols, processes, regulations, and/or legislation governing reporting to start implementation within a year.
- Surveillance data are shared on a weekly basis with relevant stakeholders.
- Outbreak reports are shared with all relevant stakeholders.

#### *Areas that need strengthening/challenges*

- Reporting mechanism among all relevant sectors should be further strengthened in respect to PHEIC, especially from relevant sectors to the IHR NFP.
- Written protocols and mechanisms of reporting among all stakeholders are needed.

# Workforce development

## Introduction

Workforce development is 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.

### Target

*States Parties to have 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). Workforce to include physicians, veterinarians, biostatisticians, laboratory scientists, farming/livestock professionals, with an optimal target of one trained field epidemiologist (or equivalent) per 200 000 population, who can systematically cooperate to meet relevant IHR and Performance of Veterinary Services core competencies.*

## Afghanistan level of capabilities

Statistics on the medical workforce in Afghanistan do exist. The total number of staff has risen over the last decades, but does not include public health specialists. Afghanistan has a limited number of public health trained personnel to prevent, detect and respond to public health events. DEWS officers and District Health Coordinators in all provinces are trained to detect outbreaks and report to the MoPH. However, gaps are observed in the field of microbiologists, virologists, laboratory technicians and epidemiologists. Currently, two cohorts of 13 epidemiologists who are following the FETP training in Tajikistan will graduate in 2017, when the training agreement will end. Options for extending the agreement, looking into alternatives in other countries, or developing basic programme facilities in Afghanistan have been discussed.

Afghanistan developed a national strategy for human resources for health (HRH) in 2014, which is currently implemented through training needs assessments. Public health expertise has not yet been identified as a need, but could be incorporated in these plans.

Coverage of medical staff in rural areas is mentioned as a concern, as is access for women due to the limited number of females in the health workforce. Around 40% of medical staff are employed by the MoPH, 40% by NGOs, and almost 10% are working in the private sector.

## Recommendations for priority actions

- Include public health specialists in the workforce planning and health workforce statistics as part of the HRH strategy.
- Identify partners for extending the FETP, either in-country or abroad.
- Include public health expertise in the current training needs assessments by the MoPH and MAIL.
- Ensure the availability of multidisciplinary rapid response teams at the different administrative levels.

## Indicators and scores

### D.4.1 Human resources are available to implement IHR core capacity requirements - Score 1

#### *Strengths and best practices*

- The number of clinical staff (doctors, nurses) is sufficient.
- DEWS officers and District Health Coordinators in all provinces are trained to detect outbreaks and report to the MoPH.
- In-country training facilities are available in universities.
- The commitment of donors and international partners continues and is increasing.
- Professional regulatory bodies (e.g. the medical council; nursing and midwifery council) are present.
- Technology, by having specialist human resources, will be able to track all related records of the recruitment process in an efficient manner.

#### *Areas that need strengthening/challenges*

- The country has no multidisciplinary human resources to implement the IHR capacities. There is a lack of education and training for certain health specialties, e.g. epidemiology and environmental health.
- Information on the veterinary workforce is not yet available, cooperation between the MoPH and MAIL is necessary to strengthen epidemiological expertise in the workforce.
- Insecurity prevents retention of HRH and contributes to staff shortages, especially in remote areas. A staff retention policy is needed.
- Unregulated and unaccredited training institutions will reduce the quality of health service delivery.
- There is a geographical and gender imbalance, particularly insufficient female health staff in remote areas; and inequitable HRH distribution.

### D.4.2 Field epidemiology training programme or other applied epidemiology training programme in place - Score 2

#### *Strengths and best practices*

- In-country training facilities are available in universities.
- Medical staff and rapid response teams are available and trained.
- FETP courses are offered in several neighbouring countries (basic, intermediate and/or advanced level), or through NGOs in the country.
- Basic FETP might be set up in-country, for which an in-service training guideline has been developed.

#### *Areas that need strengthening/challenges*

- As the FETP training agreement with Tajikistan ends in 2017, alternative partners to provide training needs to be identified in order to maintain the training programme.

### D.4.3 Workforce strategy - Score 2

#### *Strengths and best practices*

- A public health workforce strategy exists, but is not regularly reviewed, updated, or implemented consistently.
- Political commitment and the health system focus on issues pertinent to HRH development as expressed in the national health and development policies and strategies.

- The General Directorate of Human Resources within the MoPH is responsible for planning, management and development of HRH.

#### ***Areas that need strengthening/challenges***

- Specific attention to public health workforce development, such as microbiologists, laboratory technicians and epidemiologists, is missing in the HRH strategy.
- Gender imbalance in health workforce needs to be addressed; in particular, there are insufficient female health staff in remote areas of Afghanistan.

# RESPOND

## Preparedness

### Introduction

The effective implementation of the IHR (2005) requires multisectoral/multidisciplinary approaches through national partnerships for effective alert and response systems. Coordination of nationwide resources including the sustainable functioning of an IHR NFP (which is a national centre for IHR communications) is a key requisite for IHR implementation. The IHR NFP must be accessible at all times to communicate with WHO IHR regional contact points, and all relevant sectors and stakeholders in the country. States Parties should provide WHO with contact details of their IHR NFP, as well as continuously update and annually confirm them.

### Target

*Preparedness will include the development and maintenance of national, intermediate and local or primary level public health emergency response plans for relevant biological, chemical, radiological and nuclear hazards. This will cover mapping of potential hazards, identification and maintenance of available resources, including national stockpiles, and the capacity to support operations at the intermediate and local or primary response levels during a public health emergency.*

### Afghanistan level of capabilities

Afghanistan is a disaster prone country with numerous recurrent natural disasters on different scales, as well as widespread and longstanding conflict, and disease outbreaks. Ongoing insecurity has negatively affected the health of the population, the level of country preparedness and coping capacity that, in turn, has increased the vulnerability of communities and affected their resilience. By necessity, capacity to deal with mass casualty incidents (MCI), and investigation and control of disease outbreaks, has increased. Emergency and disaster risk management have become a priority agenda for the GoA including the MoPH. More and more, the country is involved risk management activities focusing on evidence-based planning. The need for such planning and capacity development remains critical despite the limited resources at national level to support this work. The health cluster coordinates technical and financial support to respond to these needs. The cluster, coordinated by the WHO Country Office, is fully functional and includes key national and international stakeholders.

According to the Emergency Preparedness and Disaster Management Policy Statement in the Afghanistan National Health Policy 2015–2020, the MoPH will considerably strengthen its mitigation of, planning for, and response to emergencies and disasters. The Afghanistan National Disaster Management Authority has been established at the national and provincial levels and promoted to a parliamentary position in the Government. ANDMA coordinates disaster risk management, response, and recovery programmes through the disaster management committees that have been operationalized at national and provincial levels. These committees consist of representatives from all relevant sectors including health. Accordingly, in 2014, the health emergency response plan, updated in April 2016, was developed and endorsed by the MoPH with assistance of the WHO Country Office.

The MoPH has established the EPR programme at national level and assigned EPR focal points in all provinces. In June 2016, the Ministry, with assistance from the WHO Country Office, established a Command

and Control Centre (CCC). In August 2016, the WHO Country Office performed a national health emergency risk assessment covering health-care facility operational capability, including EPR, in collaboration with the MoPH, ANDMA and other stakeholders. Furthermore, health emergency management has been recognized as a main element of health system functionality as assessed by the Health Functionality and Rationality Assessment.

## Recommendations for priority actions

- Review and update the national disaster management plan and national health emergency response plan according to results of the health emergency risk assessment and the IHR JEE.
- Test the updated national health emergency response plan to ensure its functionality with a focus on outbreaks within a multi-hazard framework.
- Enhance cooperation of all MoPH departments concerned with IHR, including EPR, communicable disease management, EHIS including disease surveillance, and the Afghanistan National Public Health Institute.
- Review and update the national risk assessment on an annual basis in collaboration with the different stakeholders.
- Establish a national health emergency stockpile.

## Indicators and scores

### R.1.1 Multi-hazard National Public Health Emergency Preparedness and Response Plan is developed and implemented - Score 2

#### *Strengths and best practices*

- The country has developed and endorsed a multi-hazard national disaster management plan that includes different stakeholders, including health which addresses the IHR-related hazards.
- The MoPH developed a national health emergency response plan in 2014 with WHO assistance. The plan has been endorsed by the Minister of Public Health and was revised in 2016.
- The country has contingency emergency preparedness plans for Mass casualty incidents (MCI) management and key communicable diseases.
- The MoPH has a well-established and functional disease early warning surveillance programme that forms the basis of a regular weekly report.
- The health cluster led by WHO is fully functional and coordinates international technical and financial support to the health system of the country.
- Provincial EPR focal points in the MoPH are appointed.

#### *Areas that need strengthening/challenges*

- While the national emergency plan is a starting point, more directorates of the MoPH and other sectors need to be involved to ensure maximum coordination and use of the country's limited capacities and resources.
- The national health emergency response plan needs to be tested for functionality.
- The national health emergency response plan addresses communicable disease emergencies, but the role of IHR NFP is not well defined.
- Capacities of national and provincial EPR committees need to be strengthened through regular training and exercises.

- Provincial health emergency response plans should be developed.
- Storage for stockpile needs to be replaced and restocked appropriately.

### **R.1.2 Priority public health risks and resources are mapped and utilized - Score 1**

#### ***Strengths and best practices***

- WHO has performed a health emergency risk assessment at national, provincial and district levels in collaboration with the MoPH and ANDMA. To support this initiative, intra- and intersectoral coordination committees have been established at national and provincial levels.
- The health cluster and the MoPH have done several assessments such as availability and functionality of health facilities, and conflict severity assessments.
- The disease early warning system is well established and its reports are disseminated on a weekly basis.

#### ***Areas that need strengthening/challenges***

- Risk assessment should precede and feed into emergency planning, and be reviewed and updated on a regular basis in collaboration with all stakeholders.
- A comprehensive resource mapping should also be performed on a regular basis.

# Emergency response operations

## Introduction

A public health emergency operations centre (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. They also provide other essential functions to support decision-making and implementation, coordination and collaboration.

### Target

*Countries with capacity for: a public health emergency operations centre functioning according to minimum common standards; maintaining trained, functioning, multisectoral rapid response teams; real-time biosurveillance laboratory networks; information systems; and trained EOC staff capable of activating a coordinated emergency response within 120 minutes of the identification of a public health emergency.*

## Afghanistan level of capabilities

Afghanistan is a disaster prone country, with numerous recurrent natural disasters, widespread longstanding conflict, and ongoing insecurity. Consequently, emergency preparedness and response is a priority.

The WHO Country Office assisted the MoPH to establish a national emergency Command and Control Centre (CCC) located inside the Ministry premises in Kabul. The CCC includes a conference room and call centre, and is equipped with telecommunication facilities. Since its inauguration in August 2016, the level of progress has been tremendous. Staff have been assigned and the centre works on a 24/7 basis. The CCC receives and analyses provincial data – mostly related to MCI – and coordinates health emergency response with other stakeholders including ambulance, hospitals and the police. The CCC follows the NERPH for activation, deactivation, incident command system and information management functions. The CCC is essentially a platform for response coordination for all types of emergencies. Further steps will be needed to ensure that preparedness and response to outbreaks can benefit from the CCC platform. The CCC and the polio emergency operations centre appear to run in parallel and offer opportunities for collaboration and information sharing. There is a need to strengthen CCC at regional and provincial levels.

## Recommendations for priority actions

- Integrate relevant IHR-related functions with CCC under EPR for coordinated risk assessment and response to all public health events.
- Establish linkages between the polio emergency operations centre and the national CCC.
- Establish links between the national CCC and provincial surveillance units, with regional and provincial CCCs links to be considered in the longer term.
- Develop contingency plans and case management guidelines for different IHR-related hazards.



## Indicators and scores

### R.2.1 Capacity to activate emergency operations - Score 2

#### *Strengths and best practices*

- The CCC has SOPs, in line with NERPH, to activate and deactivate emergency operations. It also has designated staff to operate CCC hotlines on a 24/7 basis. A dedicated room is available with telephone, conference, and computer facilities.
- The CCC under EPR provides a platform to support MoPH departments that have responsibilities for different aspects of IHR, in particular preparedness and response to public health events.
- The CCC gained experience of activating emergency operations for several large MCI in recent months.

#### *Areas that need strengthening/challenges*

- The CCC's focus has been on MCI so far and does not process information related to disease outbreaks.
- Links between the national emergency CCC, provincial EPR programmes and provincial surveillance units should be strengthened. Regional and provincial CCCs for high-risk provinces should be established.
- Since ANDMA is in a position to provide multisectoral support to the MoPH for response to outbreaks, its role needs to be clarified and strengthened.

### R.2.2 Emergency operations centre operating procedures and plans - Score 2

#### *Strengths and best practices*

- NHERP has defined procedures for activation, deactivation, Incident command system and information management functions that are operated by the CCC.
- The CCC capacities can be leveraged for all types of hazards including those concerned by IHR.

#### *Areas that need strengthening/challenges*

- The CCC should extend its operations to disease outbreaks, chemical, radiological and nuclear hazards. This requires enhanced cooperation of all MoPH departments concerned with IHR, including EPR, communicable disease management, and EHS, including disease surveillance.

### R.2.3 Emergency operations programme - Score 2

#### *Strengths and best practices*

- Lessons from several recent MCIs can be applied. Exercises have not been conducted recently, although a pandemic influenza preparedness exercise was performed several years ago.

#### *Areas that need strengthening/challenges*

- The CCC is a newly established facility and its functions and operations are new to the MoPH and other stakeholders, including MoPH departments, ANDMA, security, etc.
- There is no formal process to document lessons learnt from real emergencies.
- There is no written plan to design, implement and evaluate exercises. This could be explored with ANDMA and the security authorities.
- Regular training and exercises are much needed. This could be explored with ANDMA and the security authorities.

## R.2.4 Case management procedures are implemented for IHR relevant hazards - Score 2

### *Strengths and best practices*

- The MoPH has a well established and functional DEWS, and a polio emergency operations plan.
- The Ministry also has guidelines to manage disease outbreaks.
- The MoPH has investigated and controlled several disease outbreaks during the last year. Fortunately none of them were that large to stretch MoPH capacities to the maximum.

### *Areas that need strengthening/challenges*

- IHR-related functions should be integrated with EPR under CCC for coordinated risk assessment and response to all public health events.
- ANDMA and other sectors need to be aware of their roles and responsibilities with respect to IHR-related hazards.
- Linkages between the polio emergency operations plan and national CCC need to be established. This strategy will facilitate sharing experiences, optimizing the use of resources and maximizing efficiency.
- Case management guidelines and contingency plans for different IHR-related hazards need to be developed.

# Linking public health and security authorities

## Introduction

Public health emergencies pose special challenges for law enforcement, whether the threat is manmade (e.g. anthrax terrorist attacks) or naturally occurring (e.g. flu pandemics). In a public health emergency, law enforcement will need to coordinate its response quickly with public health and medical officials.

### Target

*In the case of a biological event of suspected or confirmed deliberate origin, a country will be able to conduct a rapid, multisectoral response, including the capacity to link public health and law enforcement, and to provide and/or request effective and timely international assistance, such as to investigate alleged use events.*

## Afghanistan level of capabilities

Several policy and practical examples of the substantial collaboration between public health and the security authorities were provided. At the policy level, there is an MoU for the Inter-ministerial Committee for Health and Nutrition Sector (HNS-IMC), established in 2008. The HNS-IMCs has two branches – one addressing general policy and another whose main purpose is to enhance coordination and take joint actions during MCIs caused by terrorist attacks. The Ministry of Defence is represented on this Committee. The national HNS-IMC has not addressed disease outbreaks to date. The HNS-IMC is replicated in 34 provinces of Afghanistan. Provincial HNS-IMC members include representatives from the Provincial Public Health Directorate, Head of Provincial Hospital, Regional Hospitals Commander, provincial security doctors, Afghanistan Red Crescent Society, EPR members and a health representative from the National Security Directorate.

The Minister or Deputy Minister of Public Health usually requests security assistance from the Minister or Deputy Minister of Defence. Assistance between public health agencies and security authorities at central level is coordinated by the CCC at the MoPH. Given the security context in Afghanistan, there is regular contact between health and security authorities. However, there is no formal SOPs for coordination and mobilization, especially for outbreaks, at central and provincial levels. The institutionalization of focal points requires strengthening.

Security authorities have provided protection and logistics/transportation assistance to public health agencies for different types of emergencies, especially for MCIs. In the case of outbreaks, security agencies have provided assistance to the agriculture sector for avian influenza outbreaks in poultry, and samples of CCHF were sent from the field to be tested by the Ministry of Defence Hospital in Kabul. The Ministry of Defence also has substantial health capacity for trauma management and other health services.

The MoPH has involved the security agencies in many preparedness activities, including training courses at national level and pandemic preparedness exercises. However, this inclusiveness needs to be verified at provincial level. There has not been an occasion to request the security authorities to assist with quarantine of communities. Risk analysis associated with deliberate use of hazards posing a security threat is handled by the security authorities.

## Recommendations for priority actions

- Develop joint SOPs between public health and security authorities (e.g. joint investigation of outbreaks, requests for assistance, identification of responsible focal points).
- Increase participation of the security authorities in training courses and other public health emergency preparedness activities (e.g. exercises), particularly at provincial levels.

## Indicators and scores

### **R.3.1 Public health and security authorities (e.g. law enforcement, border control, customs) are linked during a suspected or confirmed biological event - Score 4**

The national authorities gave a score of 3. The final score of 4 was justified by examples where public health agencies and security authorities shared information, requested assistance and collaborated on response to outbreaks and other types of emergencies.

#### *Strengths and best practices*

- The HNS-IMC Memorandum between the MoPH and security authorities involves senior officials: while focusing on MCIs, this could be reviewed to ensure that outbreaks and IHR capacities are addressed.
- Substantial collaboration between security authorities and the MoPH exists on a range of emergencies, focused on MCI, but also response to public health and animal disease outbreaks.

#### *Areas that need strengthening/challenges*

- The role and scope of the HNS-IMC, along with the other committees, should be clarified with respect to IHR and biological hazards (e.g. outbreaks). The respective MoUs should be reviewed to examine how biological hazards are addressed and how they can be further included where appropriate.
- Operationalization of current agreements and informal processes should be strengthened through SOPs for requests for assistance, joint risk assessments, outbreak investigations, formalization of the national and provincial focal points in MoPH and security authorities, as well as the linkage between the IHR NFP and the security authorities.
- The strengthening of capacities in other technical areas will support this technical area, e.g. efforts to increase laboratory capacity will help to identify toxins and confirm suspected biological events, while the inclusion of the animal health sector is required.
- The practice of including security authorities in public health training, exercises, assessments and committees should be maintained and extended to provincial levels.
- Formalization of arrangements for the role of security agencies for supporting public health measures, such as supporting isolation of patients and quarantine should be considered. While information appears to flow well from the MoPH to security authorities, the inverse could be strengthened.
- To meet the capacity requirement for a score of 5, more extensive collaboration on response to outbreaks, more proactive communications between security and health authorities and effective mechanisms for coordination at national, intermediate and local levels supported by SOPs are required.

# 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.

### Target

*A national framework for transferring (sending and receiving) medical countermeasures and public health and medical personnel among international partners during public health emergencies.*

## Afghanistan level of capabilities

On several occasions over the last years, Afghanistan has been involved in personnel deployment, either sending or receiving staff, e.g. support to Pakistan in polio outbreak control activities. Also, medical countermeasures have been received through international agencies (e.g. UNICEF) present in the country. The need for arrangements regarding personnel deployment and medical countermeasures is addressed in the two national disaster emergency plans (National Disaster Management Plan and NERPH), although these have not yet been formalized or further implemented through SOPs.

## Recommendations for priority actions

- Review and update the existing disaster management law, pandemic influenza plan and other relevant documents in relation to sending and receiving medical countermeasures and personnel deployment to respond to public health emergencies.
- Develop SOPs to operationalize the sending and receiving of medical countermeasures and personnel deployment.
- Consider establishing formal agreements (multisectoral) with international organizations and networks to facilitate the response to public health emergencies.

## Indicators and scores

**R.4.1 System is in place for sending and receiving medical countermeasures during a public health emergency - Score 2**

**R.4.2 System is in place for sending and receiving health personnel during a public health emergency - Score 2**

### Strengths and best practices

- Afghanistan has experience in deploying and receiving health personnel and medical countermeasures. Plans have been drafted that outline a system for sending and receiving medical countermeasures during public health emergencies.

- International aid agencies (United Nations, NGOs) are present in the country. Deployment or receipt of health personnel and medical countermeasures fall under existing agreements. No additional legal provisions are necessary to facilitate this.
- Cooperation with countries in the region exists and has been formalized in the past ('G5'). This platform can be of use for intercountry agreements.

#### ***Areas that need strengthening/challenges***

- Arrangements for deployment or receipt of medical countermeasures and personnel might be available in the national pandemic preparedness plan and other plans or agreements with international aid organizations. This needs to be inventoried.
- Intercountry support needs to be formalized.
- National disaster plans need to be further implemented through SOPs.

# Risk communication

## Introduction

Risk communication should be a multilevel and multifaceted process that aims to help 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.

Communications of this kind promote the establishment of appropriate prevention and control action through community-based interventions at individual, family and community levels. Disseminating the information through appropriate channels is essential. Communication partners and stakeholders in the country need to be identified, and functional coordination and communication mechanisms established. In addition, the timely release of information and transparency in decision-making are essential for building trust between authorities, populations and partners. Emergency communications plans should be tested and updated as needed.

### Target

*States Parties to have a risk communication capacity, which includes multilevel and multifaceted real-time exchange of information, advice and opinion between experts and officials or people who face a threat or hazard to their survival, health or economic or social well-being (so that they can take informed decisions to mitigate the effects of the threat or hazard and take protective and preventive action). It consists of a mix of communication and engagement strategies, such as media and social media communication, mass awareness campaigns, health promotion, social mobilization, stakeholder engagement and community engagement.*

## Afghanistan level of capabilities

The Health Promotion Department of the MoPH (in coordination with the Public Relations Department) is the designated entity for leading and coordinating risk communication under the IHR, and the technical and operational lead for communication response to potential public health threats. Formal SOPs for coordinating actions and activities between the two departments during an emergency, as well as coordination with counterparts in other ministries and key partners, are not fully in place, although their importance is recognized and some basic terms of engagement exist. Despite limited human and financial resources, the two departments have made much progress in risk communication. To date, and in general, the Health Promotion Department has dealt with awareness campaigns and behaviour change communication; and the Public Relations Department has led media outreach and engagement, including putting out information publicly through designated spokespersons and the MoPH website.

However, currently there is no national risk communication strategy or plan, nor a formal multisectoral platform for coordinating risk communication interventions under the IHR. Moreover, there is no dedicated team of risk communicators, or a focal point to provide overall leadership and coordination for risk communication. Surge capacity is therefore severely constrained.

Despite these challenges, Afghanistan has successfully responded to small-scale biological threats such as the limited outbreaks of avian influenza and CCHF. However, no communication capacity or expertise

exists to deal with chemical, radionuclear, or food safety risks. Communication interventions in response to public health threats have tended to be implemented during the immediacy of a crisis, and little attention has been given to the pre- and post-crisis periods to influence preventive behaviours or manage risk perceptions.

Importantly, however, all key policy documents and plans related to emergency response, e.g. NERPH and the National Disaster Management Plan, have clearly identified the need for strong capacities in emergency risk communications.

Prior experience exists within the MoPH for developing strategies/plans (e.g. the National Health Promotion Strategy, the National Communication Strategy on Pandemic and Infectious Diseases, and the National Communication Strategy for Public Relations). Experience is also available on establishing multi-stakeholder communication coordination platforms, and rolling out campaigns through decentralized structures, as part of several priority health and development programmes such as immunization, nutrition, tuberculosis, and water, sanitation and hygiene (WASH). Furthermore, a robust mechanism and sophisticated strategy underpinning the communication and social mobilization interventions in support of polio eradication have been in place for several years, under the rubric of the National Emergency Action Plan for Polio Eradication. These initiatives offer invaluable lessons for rapidly building robust risk communication capacities under the IHR in Afghanistan.

There is significant use of broadcasting and social media, as well as mobile telephony and short text messaging (SMS). However, most information and messages at the grassroots level takes place through personal communication and the use of information, education and communication (IEC) materials through frontline workers and community influencers and leaders. A large number of radio and television channels – both private and state-owned – operate in Afghanistan. Although Internet and social media use remains limited to a few urban centres, the use of mobile telephones is rising rapidly. As part of emergency preparedness, it is highly recommended that the MoPH negotiates pre-agreements and has SOPs in place for emergency use/purchase/donation of airtime from broadcasters, operators, and Internet services. Similar arrangements need to be negotiated and put in place in advance with regard to emergency ‘hotlines’, with personnel trained to respond and analyse trends in public queries and opinions.

Several independent research studies in Afghanistan have unequivocally pointed out that besides insecurity, sociocultural norms and practices are the greatest barriers to information outreach and access, especially for women and marginalized communities. Most information is mediated through men and traditional community structures, which inadvertently tend to distance women and many communities from timely and relevant health information. This in turn negatively impacts their health-seeking and protection behaviours.

There is strong engagement and long-standing support from international development agencies and donors such as WHO, UNICEF, USAID and the World Bank for technical assistance and funding in the communications domain.

### Recommendations for priority actions

- Develop a national strategic framework and plan for multi-hazard risk communication.
- Establish a dedicated core team for risk communication at national and provincial levels.
- Develop SOPs for communications coordination between sectors and partners.
- Organize cross-sector training activities on multi-hazard risk communication, and ensure the involvement of spokespersons from all key ministries and agencies.
- Formalize the rumour tracking system.



## Indicators and scores

### R.5.1 Risk communication systems (plans, mechanisms, etc.) - Score 2

The self-assessed score proposed by the MoPH was 1. However, following substantive discussions, the JEE team elevated the score for this indicator to 2.

#### *Strengths and best practices*

- The need for strong capacities in emergency public communication and engagement with communities and the media is clearly articulated and enshrined as an aspiration (albeit in a fragmented manner) in practically all key policy documents and plans related to emergency response. Some of this has been the basis for the communication response to outbreaks of avian influenza and CCHF in the past.
- Prior experience exists within the MoPH for developing multisectoral strategies, plans, and coordination mechanisms (e.g. the National Health Promotion Strategy, the National Communication Strategy on Pandemic and Infectious Diseases, and the National Communication Strategy for Public Relations), albeit in the 'development' rather than the 'emergency' context.
- The National Emergency Action Plan for Polio Eradication, and the national and provincial Polio Emergency Operations Centres offer valuable lessons for targeted, evidence-based messaging interventions, socio-behavioural data gathering, and monitoring and evaluation protocols. This is also the case with their associated SOPs for ground-level implementation of communication, social mobilization, and community engagement activities by the Interpersonal Communication Network of highly trained frontline workers.

#### *Areas that need strengthening/challenges*

To meet the capacity requirements of Indicator R.5.1, and to move from a score of 2 to 3, the following actions will need to be immediately undertaken.

- Advocacy should target key communication stakeholders and partners to enhance their knowledge and awareness of IHR, the Global Health Security Agenda, JEE and multi-hazard risk communication, resulting in the nomination of risk communication focal points across all relevant ministries, NGOs and United Nations agencies.
- A multisectoral, multidisciplinary and multistakeholder Strategic Technical Advisory and Coordination Group should be established within the MoPH to provide technical guidance, oversight, coordination, and leadership to advance the agenda for strengthening risk communication as a core capacity.
- A consensual strategic framework and plan for emergency risk communication and community engagement should be developed for multi-hazard public health emergencies; such a strategy should be integrated and harmonized with key national frameworks and plans for public health threats and disasters.
- A dedicated core team of cross-sector risk communicators, trainers and spokespersons should be established at national, regional and provincial levels to respond to multi-hazard threats and events, through implementation of a centralized training and mentoring programme on risk communication under the IHR.

### R.5.2 Internal and partner communication and coordination - Score 2

#### *Strengths and best practices*

- The Department of Health Promotion has been designated to lead communication and coordination. An ad hoc but functional arrangement exists for rapid sharing of key messages with frontline functionaries and NGO partners for dissemination from the national to provincial, district, and community levels through the decentralized EPR units.

- While there is strong evidence of a well-functioning health cluster system for partner coordination (led by the WHO Country Office) in the technical areas, it is not clear how well communication has been coordinated during past events.
- Several instances have proved successful in sharing needs-based information and ad hoc coordination during preparedness initiatives (e.g. Ebola, pandemic influenza, and Middle East respiratory syndrome coronavirus) and disease outbreaks such as avian influenza, CCHF, and polio.

#### *Areas that need strengthening/challenges*

- There is a clear need to develop SOPs for communications coordination during a public health emergency situation across sectors and between partners. These should be harmonized with current policy and strategy documents related to emergencies and disaster response, and include vertical and horizontal coordination of communication actions that are aligned with, and supportive of, the SOPs of the emergency CCC.

### **R.5.3 Public communication - Score 2**

#### *Strengths and best practices*

- Communication arrangements are closely (albeit informally) linked to the robust surveillance and decentralized DEWS. The 30 000 CHWs, the zoonosis committees, and the provincial level EPR units are the backbone of this system, and an available resource for enhancing risk communication capacities.
- The health emergency risk assessment mapping exercise is another resource that has tremendous potential for strengthening risk communication. The provincial risk/vulnerability maps can form the basis for linking a sociobehavioural profile and media reach/penetration component. Media reach and penetration mapping (radio, TV, mobile telephony, Internet, social media etc. disaggregated by rural/urban, male/female population etc.) and research is already available.

#### *Areas that need strengthening/challenges*

- New and refresher trainings should be organized in risk communication for official spokespersons of the MoPH and other implicated sectoral entities. This would allow an effective multi-media response that builds, restores, or maintains trust between the public and the authorities on an ongoing basis.
- Current arrangements allow frontline workers and entities to be rapidly informed about key messages and actions to be taken by communities in case of a public health emergency. However, there is currently no system for the rapid mass-scale training of frontliners in interpersonal communication and engaging with communities to promote health protection and care-seeking behaviours. Experience suggests that such a system with appropriate SOPs needs to be developed and implemented, particularly since face-to-face engagement forms a major component of any communication intervention in Afghanistan. The polio eradication programme (especially the Interpersonal Communication Network can offer solidly grounded lessons to strengthen this capacity for other hazards.
- Lessons and methodologies on effective public communication and community engagement interventions emerging internationally from the Ebola and Zika virus outbreaks, as well as experiences in food safety and chemical events, have not yet been systematically assimilated or adopted in strategies and plans. This knowledge must be incorporated in any new national strategy and plan for risk communication.
- Capacity and expertise to conduct sociobehavioural and risk perception research, especially during emergencies, is limited within the MoPH. The ability and systems to conduct sociobehavioural research using contemporary methods and new digital technologies, before or during an unfolding event, needs to be significantly strengthened.

#### R.5.4 Communication engagement with affected communities - Score 1

The self-assessed score proposed by the MoPH was 2. However, following discussion, the JEE team downgraded the score to 1, noting that score 2 could be very rapidly achieved with a few adjustments and a formalized system.

##### *Strengths and best practices*

- The polio eradication programme has robust experience and offers lessons in community engagement on an ongoing basis. Specifically, it has a system that closely links epidemiological and sociobehavioural data on a real-time basis, to inform community engagement interventions. However, this only targets certain identified high-risk provinces and districts.
- The 30 000 CHWs and other frontline workers are involved in various health programmes of a routine and developmental nature. With risk/vulnerability assessments and mapping already in place, and priority animal and human diseases identified, Afghanistan is well placed to initiate a robust risk communication programme for systematic awareness-building and shaping preventive/protective behaviours.

##### *Areas that need strengthening/challenges*

- There is currently no formal risk communication programme or system in place to engage proactively with vulnerable or affected communities on an ongoing basis. While some engagement in the form of awareness and behaviour change communication takes place through various routine health and development programmes (such as EPI, Maternal and Child Health, HIV, and Tuberculosis), this is not the case for emergencies or multi-hazards under the IHR.
- Besides CHWs, frontline workers in sectors such as teachers or WASH field staff need to be included for a shared understanding of risk behaviours and perceptions, in order to respond efficiently and effectively to multiple hazards of public health concern. This is currently not the case.

#### R.5.5 Dynamic listening and rumour management - Score 3

##### *Strengths and best practices*

- Rumours and misinformation from the field are picked up through the strong surveillance network and frontline CHWs and DEWS functionaries at grass roots. The information is collated during regular weekly and monthly meetings of DEWS and EPR personnel, analysed and transmitted up and across the chain of command for action as needed. This ad hoc system has been responsive to both human and veterinary health events.
- The MoPH also conducts regular scanning of news and social media to track unusual events for further investigation. Several instances of such rumour tracking followed by investigations and interventions indicates that this ad hoc arrangement works well.

##### *Areas that need strengthening/challenges*

- Elements of dynamic listening and rumour management are being practised on an ongoing basis, but have not been formalized. SOPs need to be formulated to ensure more comprehensive multi-hazard coverage, rapid analysis, and efficient response. The tracking, analysis, and management of rumours needs to be systematized and formalized to further improve sensitivity, speed of analysis, and efficiency of the response. The system should also be capable of tracking public opinion and reactions to government actions. Moving forward, the system should be able to generate real-time information that is geographic information system (GIS)-enabled. This is in line with developments anticipated to build a real-time surveillance system.
- The SMS technology and other digital platforms, used extensively in the polio eradication programme to track rumours and monitor sociobehavioural trends, can be easily adapted under IHR for emergency preparedness and response.

# OTHER IHR-RELATED HAZARDS AND POINTS OF ENTRY

## Points of entry

### Introduction

All core capacities and potential hazards apply to points of entry (PoE) 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 to designate and maintain core capacities at international airports and ports (and where justified for public health reasons, a State Party may designate ground crossings), which implement specific public health measures required to manage a variety of public health risks.*

### Afghanistan level of capabilities

Afghanistan has three points of entry designated for IHR implementation: Hamed Karzai Airport, and Turkham and Islam Qala border crossings. There are no communication procedures for public health events between conveyances and public health authorities at PoE, and IHR NFP. Roles and responsibilities among sectors at the different PoE concerning public health services are defined for some routine activities, e.g. a food inspection programme under the responsibility of MAIL. Samples are usually collected and sent for laboratory investigation. Infrastructure and trained personnel are lacking to store food products in proper conditions until the lab results are available.

The importation and exportation of animals is addressed by the national committee for zoonotic disease. At ground crossings, staff visually check animals for disease. Samples are also collected and certificates checked to allow entry. Quarantine at PoE is not properly equipped, and animals are allowed to enter the country to reach quarantine places managed by the customs. Sharing of information between the animal and human health is very good. Afghanistan became a member of the World Trade Organization in 2015. Procedures for import and export, and for quarantine facilities at borders, are being developed.

Facilities with trained personnel to assess ill travellers are not in place. A few personnel were temporarily placed by the MoPH at the health facility in the international airport during the Ebola outbreak. Referral to health facilities for further assessment and management is in place but not through written agreements or procedures.

Surveillance for public health events is not in place:

- Arriving ill passengers usually seek health care inside the country and not at the PoE. Hence, there are no records of ill passengers at the PoE.
- Food and water are provided at PoE but with no system to ensure it is safety. A vector surveillance and control programme is in place, although the PoE and facilities around them are not part of this programme.

- A field visit to the international airport was planned but not implemented due to security constraints. Plans and SOPs for response to public health events of different origins are also lacking, except for temporary measures during the Ebola outbreak to identify suspected cases and refer them to the designated health facilities.

WHO runs a programme at the two ground crossings to check polio vaccination certificates for people arriving from Pakistan.

## Recommendations for priority actions

- Develop a public health contingency plan for all hazards at PoE with the involvement of relevant stakeholders.
- Develop SOPs on the early detection, investigation and initial assessment of ill passengers detected at PoE, and train personnel on their implementation.
- Involve PoE and facilities around them in the national vector surveillance and control programme.
- Consider establishing cross-border agreements for the early detection and rapid response to public health events.

## Indicators and scores

### PoE.1 Routine capacities are established at points of entry - Score 1

#### *Strengths and best practices*

- Referral of ill passengers from designated PoE to health facilities is being done.
- Some activities related to the inspection of goods (animal and food) are in place and can be strengthened.

#### *Areas that need strengthening/challenges*

- SOPs for communication and coordination between the different stakeholders need to be put in place.
- The number of skilled human resources to conduct public health programmes should be increased.
- Efforts should be made to improve implementation and monitoring of the public health programme.
- There are no generic guidelines or SOPs for the early detection and assessment of ill passengers.
- The referral of ill passengers to health facilities needs to be documented.

### PoE.2 Effective public health response at points of entry - Score 1

#### *Strengths and best practices*

- A few personnel have been designated and trained at selected PoE for the early detection and management of suspected Ebola cases.
- SOPs exist for the early detection and management of Ebola suspected cases.
- A space can be designated for the isolation of ill passengers at the international airport.
- A programme is in place at the ground crossings to check polio vaccination cards.

#### *Areas that need strengthening/challenges*

- A Public Health Emergency Response Contingency Plan for all hazards needs to be developed as an integral part of the PoE Emergency Plan. Simulation exercises to test preparedness capacity should be carried out.
- PoE should have facilities for assessment and quarantine of suspected ill travellers and animals.
- The level of trained personnel to develop plans and implement procedures during PHEIC is inadequate.

# Chemical events

## Introduction

States Parties should have 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.

### Target

*States Parties to have surveillance and response capacity for chemical risks or events, with effective communication and collaboration among the sectors responsible for chemical safety, industries, transportation and safe disposal.*

## Afghanistan level of capabilities

The National Environmental Protection Agency was established in 2005 as an independent institution, responsible for coordinating and monitoring conservation and rehabilitating the environment in the country. Its objectives are:

- to improve livelihoods and protect the health of humans, fauna and flora;
- to maintain ecological functions and evolutionary processes;
- to secure the needs and interests of present and future generations;
- to conserve natural and cultural heritage;
- to facilitate the reconstruction and sustainable development of the national economy.

However, there is limited capacity for testing of chemicals and toxins in food, drugs, water and the environment. There is also limited national surveillance for chemical exposure as part of the national surveillance system. While this is of good quality with respect to infectious disease, there is little evidence that, in reality, significant reporting of chemical incidents occurs, despite the infrastructure in place. There is anecdotal concern with respect to pesticide use and air pollution levels in Kabul. Because of the security situation in Afghanistan it should be noted that no large chemical production infrastructure exists, and only limited heavy industry. Capability is limited to detect and respond to malicious deliberate release of chemicals.

## Recommendations for priority actions

- Embed an understanding and awareness of chemical event surveillance within the overall surveillance system, and further develop the response capability of chemical events.
- Develop further chemical testing capacity for common chemical threats either in country or by agreement with neighbouring countries.
- Develop a clearer cross-sector understanding and system for assessing chemical threats.
- Update the National Environmental Pesticides strategy for 2017–2020.

## Indicators and scores

### CE.1 Mechanisms are established and functioning for detecting and responding to chemical events or emergencies - Score 1

#### *Strengths and best practices*

- There is provision for the surveillance of chemical events in the public health surveillance system.

#### *Areas that need strengthening/challenges*

- An understanding and awareness of chemical event surveillance should be embedded within the surveillance system, and the response capability to chemical events should be further developed.
- Capacity for chemical testing for common chemical threats should be developed either in country or by agreement with neighbouring countries.
- Sample testing should be broadened from specific tests to include a broad spectrum panel of tests.

### CE.2 Enabling environment is in place for management of chemical events - Score 2

#### *Strengths and best practices*

- National Environmental Protection Agency provides some cross-sector coordination regarding chemical legislation and response.

#### *Areas that need strengthening/challenges*

- A clearer cross-sector understanding, and a system to assess chemical threats, needs to be developed.
- The National Environmental Pesticides strategy for 2017–2020 should be updated.
- There is a need to turn the legislative base into a more active chemical monitoring and response system.

# Radiation emergencies

## Introduction

States Parties should have surveillance and response capacity for radionuclear hazards/events/emergencies. This requires effective communication and collaboration among the sectors responsible for radionuclear management.

### Target

*States Parties to have surveillance and response capacity for radionuclear hazards/events/emergencies with effective communication and collaboration among the sectors responsible for radionuclear management.*

## Afghanistan level of capabilities

The Afghan Atomic Energy High Commission has been established for several years and provides some coordination across government departments. The Government also has a system to register all radiation machines in the country, which is important, given the security situation, and there is a limited number of radiotherapy sources. One known radiological incident has occurred but there is very limited radiation monitoring and diagnostic capability in Afghanistan. In addition, there is:

- no baseline public health assessment or other assessments of radiation safety;
- no assessment performed on radiation events and risks;
- no health-care facilities for radiation emergencies;
- no radiation emergency response plan;
- limited human and financial resources.

## Recommendations for priority actions

- Provide training on radiation safety for those who could be exposed.
- Build radiation awareness and the capacity of first-line staff to respond to radiation incidents.
- Develop an emergency radiological response plan and establish a coordination body with relevant sectors.
- Develop capacity for radiological monitoring and initial source identification.

## Indicators and scores

### RE.1 Mechanisms are established and functioning for detecting and responding to radiological and nuclear emergencies - Score 1

#### Strengths and best practices

- Afghanistan has made some progress on strategic and legislative planning.

#### Areas that need strengthening/challenges

- An emergency radiological response plan should be developed, and a coordination body with relevant sectors established.



- Capacity needs to be developed for radiological monitoring and initial source identification.
- A public health baseline assessment of radiological sources and safety should be performed.

## **RE.2 Enabling environment is in place for management of radiation emergencies - Score 2**

### ***Strengths and best practices***

- The Afghan Atomic Energy High Commission provides a focal point for communication with the MoPH regarding radiation.

### ***Areas that need strengthening/challenges***

- Greater knowledge is needed on the role of the Commission as a focal point for radiation information and advice in the health sector.
- There is an urgent need to provide training on radiation safety for those who could be exposed.
- There is a need to build radiation awareness and the capacity of first-line staff to respond to radiation incidents.

# Annex 1. JEE background

## Mission place and dates

The mission took place in Kabul, Afghanistan on 4–7 December 2016. The team held multisectoral discussions and site visits in the capital city.

## Objectives

1. Assess the implementation of IHR public health capacities for surveillance and response to public health events including at points of entry.
2. Review all related documents.
3. Develop a report describing the progress and gaps in implementing IHR capacities.
4. Recommend priority actions to update and finalize the national plan to achieve and maintain IHR capacities for global health security.

## External evaluation team members

- Mika Salminen (Team lead), National Institute for Health and Welfare, Helsinki, Finland
- Dalia Samhouri (Team co-lead), WHO Eastern Mediterranean Regional Office, Cairo, Egypt
- Jonathan Abrahams, WHO headquarters, Policy, Practice and Evaluation, Geneva, Switzerland
- Idris Saleh Al-Abaidani, Director of Disease Surveillance and Control, Ministry of Health, Muscat, Oman
- Ali Ardalan, Chair, Department of Disaster and Emergency Health, Tehran University of Medical Sciences; Senior Fellow and Visiting Scientist at Harvard Humanitarian Initiative, Harvard University, Tehran, Iran
- Donewell Bangure, Epidemiologist, African Centres for Disease Control and Prevention, Addis Ababa, Ethiopia
- Ghazi Kayali, Chief Executive Officer, Human Link, Beirut, Lebanon
- Satyajit Sarkar, Risk Analysis and Communication, New Delhi, India
- John Simpson, Emergency Preparedness and Response department, Public Health England, London, United Kingdom
- Corien Swaan, Head, Prevention and Control, National Coordination Centre for Communicable Disease Control, National Institute for Public Health and the Environment, Amsterdam, Netherlands
- Herilinda Temba, Epidemiologist, African Centres for Disease Control and Prevention, Addis Ababa, Ethiopia

## Limitations and assumptions

### Assumptions

- The results of this assessment will be made publicly available.
- The assessment is not an audit, and while information provided by Afghanistan was cross-checked and validated by the team as far as possible, not everything could be independently validated.

- This is a peer-to-peer review. Information provided by Afghanistan was discussed and an assessment rating was mutually agreed between the host country and assessment team.

### Limitations

- The assessment was of one week's duration, which limited the amount and depth of information that could be managed.
- Some of the background documents were only available in local language. The national team members provided a summary; however, this limited the review of the background documents by all experts.
- The evaluation meetings were conducted at the national level. Staff from some regions participated in the discussion; however, not all sectors were represented from all provinces. Having all provinces represented in the discussion might have affected the scores, particularly as no field visits could be conducted to any of the provinces, due to the short duration of the mission.

### Preparation and implementation of the mission

- Prior to the visit, several communications took place with assessment team members and experts through Afghanistan WHO Country Office to review the agenda, responsibilities, and logistics.
- A national training was conducted on 13–14 November 2016 to provide national stakeholders with the information and resources necessary to participate successfully in the JEE process; and to provide guidance on self-reporting requirements and responsibilities.
- Background documents were collected and shared with the JEE team along with the complete JEE tool for review.
- One-day orientation was provided to the JEE external experts on the JEE process and tool, objectives and expected outcomes, and to discuss and finalize the agenda of the mission.
- Meetings with relevant stakeholders and field visits were conducted in Kabul to validate the collected information and to reach a consensus on the scores and priority actions.
- A debriefing meeting was held with senior officials and national technical teams involved in the evaluation to present the outcomes of the JEE, best practices and priority actions.

### Key host country participants and institutions

Name	Position	Organization
<b>M Dauod Altaf</b>	Health Cluster Coordinator	WHO
<b>Ghulam Haidar Rafiqi</b>	National Emergency Officer	WHO
<b>Vicki</b>	Public Health Officer	WHO
<b>Khaliqullah Waziri</b>	Information Officer	MoPH
<b>M Fahim Babakr Khil</b>	Expert	National Environmental Protection Agency
<b>Omar Gul Kakar</b>	Emergency Preparedness and Response Officer	MoPH
<b>Hamidullah Habibi</b>	Health Management Information Systems Officer	MoPH
<b>M Shoaib Tamim</b>	National Malaria and Leishmaniasis Control Programme	MoPH
<b>Sadaat Poyan</b>	Health Management Information Systems Officer	Afghanistan Red Crescent Society
<b>Khaksar</b>	Communications Officer	UNICEF
<b>Shafiqullah Hemat</b>	Director of Health Promotion	MoPH
<b>Lima Rasool</b>	Health Promotion Officer	MoPH
<b>Mohammad Faisal</b>	Staff	MoPH

<b>Wahid Sharifi</b>	Research Officer	MoPH
<b>Nasir Ahmad Stanikzai</b>	Central Public Health Laboratory Director	MoPH
<b>Hussain Nazim Shirazi</b>	National Animal Health and Production Technical Advisor	FAO
<b>Alami</b>	Project Manager	MoPH
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<b>Muzhgan Habibi</b>	Evaluation and Health Information System Officer	MoPH
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<b>Aminullah Waziri</b>	Legal Advisor	MoPH
<b>Ebady</b>	Staff	National Security Directorate
<b>Ghaibullah Hamdard</b>	International Relations Coordinator	Ministry of Defence
<b>Sayed Ebrar Wadier</b>	Staff	Ministry of Interior
<b>Essa Ibrahim</b>	Gender National Coordinator	MoPH
<b>Jundullah</b>	Monitoring and Evaluation Officer	MoPH
<b>Latif A Noori</b>	Director Medical Prevention A.N.P.	Ministry of Interior
<b>M Hafiz Rasoly</b>	National Influenza Manager	MoPH
<b>Fatima Arifi</b>	IHR Assistant	MoPH
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<b>Husna Bakhshi</b>	Surveillance Assistant	MoPH
<b>Ajir Rahaman</b>	Surveillance Coordinator	MoPH
<b>Abdul Hai Nazifi</b>	Director,	Afghanistan Atomic Energy High Commission
<b>Mohammad Qasem</b>	Airport Manager	Hamid Karzai International Airport
<b>Sanaullah Sana</b>	Radiation Advisor	Afghanistan Atomic Energy High Commission

## Supporting documentation provided by Afghanistan

### National legislation, policy and financing

- Public Health Law, 2009.
- Draft Animal Health Law, 2014.
- Pharmacy regulation, 2009; and Forensic Medicine Law, 2010.
- EPI Policy, 2010.
- Infection prevention national policy, 2010; vaccination and immunization regulation, 2010; and vaccines and immunization regulation, 2011.
- Private medical laboratories regulation, 2006.
- Environment Law, 2006; environment assessment regulation, 2007; environmental health policy, 2010; and national environmental health strategy, 2013.
- Food Law, 2011.
- Memoranda of Understanding with Iran on plant protection and quarantine, 2007; and health support, 2005.

### IHR coordination, communication and advocacy

- List of IHR experts from relevant sectors.
- National Disaster Management Plan.
- Zoonosis committee members and ToRs.

### Zoonotic diseases

- Draft National Zoonotic Disease Strategy.
- MoU for cooperation between MoPH and MAIL.
- Avian Influenza contingency plan.
- CCHF awareness plan.
- Rabies plan.

### Food safety

- Food Law.
- MoU between MoPH and MAIL.

### Biosafety and biosecurity

- SOPs for some disease diagnoses.
- Biosafety and biohazard universal symbols were shown.
- Guidelines for Quality Control (including BSL 1 and BSL 2 measures).
- Draft National Laboratory Policy, with a chapter addressing biosafety and biosecurity.
- Training materials from SNL, CBEP and WHO available.

## Immunization

- National health strategy.
- National EPI strategy.
- Comprehensive multiyear plan, 2015–2019.
- National EPI guideline.
- HSS3 proposal.
- Data Quality improvement plan, 2016–2019.

## National laboratory system

- National Team presentation on laboratories, Dr Nasir Ahmad Stanikzai.
- National Laboratory Policy, final draft, 16 August, 2016.
- National Laboratory Guidelines for Communicable Disease Surveillance.
- National Laboratory Quality Assurance Guideline – Afghanistan, draft, 22 January 2016.

## Real-time surveillance

- National Surveillance Guidelines.
- Laboratory Surveillance Guideline, 2016.
- Surveillance Annual Report, 2015.
- Outbreak investigation reports and line list updated in 2016.
- Weekly Epidemiological Reports (national and provincial), 2016.
- Lab request forms updated in 2016.
- Ministry of Public Health National Health Strategy, 2016–2020.
- Surveillance national monitoring check list updated in 2016.

## Reporting

- Weekly and annual surveillance reports.
- Outbreak investigation report.

## Workforce development

- General Directorate of Human Resources MIS database.
- General Directorate of Human Resources workforce plan in health sector (according to the Government human capital council demand).
- National in-service training guide, 2014.
- NHS 2016–2020.
- National Strategy on Human Resource for Health Capacity Building with focus on In service Training (2014–2018), MoPH.
- Capacity Development Framework, 2016–2020: Why, What and How, MoPH 2016.

## Preparedness

- Afghanistan National Disaster Management Plan.
- Emergency Preparedness and Disaster Management Policy Statement, Afghanistan National Health Policy, 2015–2020.
- National Health Emergency Response Plan.
- Report of Health Emergency Risk Assessment.
- ToRs and SOPs of Command and Control Centre.
- Guidelines for control of outbreak disease.

## Emergency response operations

- Afghanistan National Disaster Management Plan
- Emergency Preparedness and Disaster Management Policy Statement at the Afghanistan National Health Policy 2015–2020.
- National Health Emergency Preparedness and Response Plan.
- Report of Health Emergency Risk Assessment.
- ToRs and SOPs of Command and Control Centre.
- Guidelines for control of outbreak disease.

## Linking public health and security authorities

- MoU on zoonotic diseases.
- Inter-ministerial memorandum, 2013.
- MoPH public health law, 2009.
- Hazard preparedness law, 2014.
- Health service provision agreement, 2013.
- ToRs for Health and Nutrition Sector Inter-ministerial Committee, 2012.
- National health disaster management plan, 2014.
- National health emergency response plan, 2016.

## Medical countermeasures and personnel deployment

- National disaster management plan for Health Sector, MoPH, August 2014.
- National All-Hazard Emergency Response Plan in Health, MoPH, August 2014.

## Risk communication

- National Communication Strategy on Pandemic and Infectious Diseases of Public Health Concern in Afghanistan, 2013–2020.
- National Health Promotion Strategy, 2014–2020.
- Communication Strategy for Public Relations, 2016–2020.
- National All-Hazard Emergency Response Plan in Health, April 2016.
- National Disaster Management Plan, 2010.

- National Strategy for Prevention, Control and Elimination of Zoonotic Diseases in Afghanistan (Draft Version 1), 2017–2021.
- National Emergency Action Plan for Polio Eradication, 2016–2017.
- Afghanistan Polio Eradication Initiative – Standard Operating Procedures for Social Mobilization and Community Engagement through the Immunization Communication Network, 2016.
- Crimean Congo Haemorrhagic Fever Awareness Campaign Report, September 2016.
- Knowledge, Attitudes, and Practices regarding Avian Influenza (H5N1), Afghanistan, 2008.
- Afghan Information Ecosystems, September 2016.
- Media Landscape in Afghanistan – The Media Mapping Project, <http://data.internews.org/af-media/>.
- Afghan Media in 2014 – Understanding the Audience, February 2015.
- Afghan Media in 2010 – Synthesis Report, October 2010.

### **Chemical events**

- Environmental Law.
- Environmental impact assessment regulation.
- Regulation on prevention and mitigation of air pollution.
- Regulation on the control of ozone degradation substances.
- National policy on waste management.
- Environmental standards.
- Regulation on the control and monitoring of biological and clinical waste.

### **Radiation emergencies**

#### **Relevant documentation**

- Radiation Emergency Preparedness Plan, 2010.
- Nuclear Law, 2014.
- Ionizing Radiation Protection Regulation, 2015.



