INTERNATIONAL HEALTH REGULATIONS (2005)

IHR CORE CAPACITY MONITORING FRAMEWORK:

Checklist and Indicators for Monitoring Progress in the Development of IHR Core Capacities in States Parties

February 2011

International Health Regulations
Coordination

World Health
Organization

INTERNATIONAL HEALTH REGULATIONS (2005)

IHR CORE CAPACITY MONITORING FRAMEWORK:

Checklist and Indicators for Monitoring Progress in the Development of IHR Core Capacities in States Parties

February 2011

Table of Contents

ACKNOWLEDGEMENTS

ACRONYMS

AMRO	WHO Regional Office for the Americas
ICAO	International Civil Aviation Organization
IHR	International Health Regulations (2005)
INFOSAN	International Food Safety Authorities Network
IPC	Infection prevention and control
MoH	Ministry of Health
NFP	National Focal Point
NGO	Non-governmental organization
PAHO	Pan American Health Organization
PoE	Points of entry
RRT	Rapid response teams
SOP	Standard operating procedure
SWOT	Strengths, weaknesses, opportunities and threats analysis
UN	United Nations
WHA	World Health Assembly
WHO	World Health Organization

GLOSSARY

Terms and NB: The following definitions have been provided for words and phrases found in the text and as they relate to their use in the context of this tool only, and may differ from those used in other documents.

affected	persons, baggage, cargo, containers, conveyances, goods, postal parcels or human remains that are infected or contaminated, or carry sources of infection or contamination, so as to constitute a public health risk.
attribute	one of a set of specific elements or characteristics that reflect the level of performance or achievement of a specific indicator.
biosafety	the maintenance of safe conditions in biological research to prevent harm to workers, non-laboratory organisms and the environment.
capability level	indicates how far State Party has progressed towards attaining a given indicator, component and core capacity.
case definition	a case definition is a set of diagnostic criteria for use during surveillance and outbreak investigations that must be fulfilled for an individual to be regarded as a case of a particular disease for the purposes of surveillance and outbreak investigations. Case definitions can be based on clinical criteria, laboratory criteria or a combination of the two along with the elements of time, place and person. The case definitions relating to the four diseases in connection with which all cases must be notified by States Parties to the World Health Organization (WHO), regardless of circumstances, are published on the WHO web site under the International Health Regulations (IHR) (2005) Annex 2.
cluster	an aggregation of relatively uncommon events or diseases in space and/or time in amounts that are believed or perceived to be greater than could be expected by chance (*adapted from Last JM, ed. A Dictionary of Epidemiology, 2001*).
communicable disease or infectious disease	an illness due to a specific infectious agent or its toxic products that arises through transmission of that agent or its products from an infected person, animal or reservoir to a susceptible host, either directly or indirectly through an intermediate plant or animal host, vector or the inanimate environment (*Last JM, ed. A Dictionary of Epidemiology, 2001*).
competent authority	an authority responsible for the implementation and application of health measures under the IHR (2005).
component	a subset of the core capacity (see below). A set of indicators contribute to a component, and a group of components in turn measures the achievement of a core capacity which can be considered achieved when all of its components are in place.

contamination	the presence of an infectious or toxic agent or matter on a human or animal body surface, in or on a product prepared for consumption or on other inanimate objects, including conveyances, that may constitute a public health risk (IHR (2005)).
core capacity	the essential public health capacity that States Parties are required to have in place throughout their territories pursuant to Articles 5 and 12, and Annex 1A of the IHR (2005) requirements by the year 2012. Eight core capacities are defined in this document.
decontamination	a procedure whereby health measures are taken to eliminate an infectious or toxic agent or matter present on a human or animal body surface, in or on a product prepared for consumption or on other inanimate objects, including conveyances, that may constitute a public health risk.
deratting	the procedure whereby health measures are taken to control or kill rodent vectors of human disease present in baggage, cargo, containers, conveyances, facilities, goods and postal parcels at the point of entry.
disease	an illness or medical condition, irrespective of origin or source, that presents or could present significant harm to humans.
disinfection	1) a process that eliminates all pathogenic microorganisms, with the exception of bacterial spores, from inanimate objects, for the purpose of minimizing risk of infection (*Infection prevention and control of epidemic- and pandemic-prone acute respiratory diseases in health care, WHO Interim Guidelines*); 2) the procedure whereby health measures are taken to control or kill the insect vectors of human diseases present in baggage, cargo, containers, conveyances, goods and postal parcels (IHR (2005)).
early warning system	in disease surveillance, a specific procedure to detect as early as possible any abnormal occurrence or any departure from usual or normally observed frequency of phenomena (e.g. one case of Ebola fever). An early warning system is only useful if linked to mechanisms for early response. (*Adapted from Last JM, A Dictionary of Epidemiology, 2001*).
evaluation	a process that attempts to determine as systematically and objectively as possible the relevance, effectiveness and impact of activities in light of their objectives. This could include evaluation of structures, processes and outcomes (*Adapted from Last JM, ed. A Dictionary of Epidemiology, 2000*).
event	a manifestation of disease or an occurrence that creates a potential for disease as result of events including, but not limited to those that are of infectious, zoonotic, food safety, chemical, radiological or nuclear origin or source.
event based surveillance	the organized and rapid capture of information about events that are a potential risk to public health including events related to the occurrence of disease in humans and events related to potential risk-exposures in humans. This information can be rumours or other ad-hoc reports transmitted through formal channels (e.g. established routine reporting systems) or informal channels (e.g. media, health workers and non-governmental organizations reports).

feedback	the regular dissemination of surveillance data from analyses and interpretations to all levels of the surveillance system to ensure that everyone involved is kept informed of trends and performance.
geographic information system	an organized collection of computer hardware, software, geographical data and personnel designed to efficiently capture, store, update, manipulate, analyse and display all forms of geographically referenced information. It is first and foremost an information system with a geographical variable, which enables users to easily process, visualize and analyse data or information spatially. It can be used to prepare models showing trends in time and space. Satellite imaging and remote sensing have expanded its scope, e.g., to identify regions prone to malaria.
goods	tangible products, including animals and plants, transported on an international voyage, including those for utilization on board a conveyance (IHR (2005)).
ground crossing	a point of land entry in a State Party, including one utilized by road vehicles and trains (IHR (2005)).
health-care worker	any employee in a health-care facility who has close contact with patients, patient-care areas or patient-care items; also referred to as health-care personnel or a variety of professionals (medical practitioners, nurses, physical and occupational therapists, social workers, pharmacists, spiritual counsellors, etc.) who are involved in providing coordinated and comprehensive care (*Infection prevention and control of epidemic- and pandemic-prone acute respiratory diseases in health care, WHO Interim Guidelines*).
health hazard	a factor or exposure that may adversely affect the health of a human population. Health hazards can be of biological (infectious, zoonotic, food safety and other), chemical, radiological and nuclear origin or source.
health measure	procedures applied to prevent the spread of disease or contamination; a health measure does not include law enforcement or security measures (IHR (2005)).
incidence	the number of instances of illness commencing, or of persons falling ill during a given period in a specified population (Prevalence and Incidence. WHO Bulletin, 1966, 35: 783–784).
indicator	is a variable that can be measured repeatedly (directly or indirectly) over time to reveal change in a system. It can be qualitative or quantitative, allowing the objective measurement of the progress of a programme or event. The quantitative measurements need to be interpreted in the broader context, taking other sources of information (e.g. supervisory reports and special studies) into consideration and they should be supplemented with qualitative information.

indicator based surveillance	the routine reporting of cases of disease, including through notifiable diseases surveillance systems, sentinel surveillance, laboratory based surveillance etc. This routine reporting originates typically from a health-care facility where reports are submitted at weekly or monthly intervals.
infection	the entry and development or multiplication of an infectious agent in the body of humans and animals that may constitute a public health risk (IHR (2005)).
infection control	measures practiced by health-care workers in health-care settings to limit the introduction, transmission and acquisition of infectious agents in health-care settings (e.g., proper hand hygiene, scrupulous work practices, and the use of personal protective equipment such as masks or particulate respirators, gloves, gowns, and eye protection. Infection control measures are based on how an infectious agent is transmitted and include standard, contact, droplet and airborne precautions).
infectious disease	see communicable disease.
infection prevention and control (IPC) national programme	the ensemble of policies, goals, strategies, legal, technical framework and monitoring of nosocomial infection (*Core components for infection prevention and control program. WHO/HSE/EPR/2009.1*)
isolation	separation of ill or contaminated persons or affected baggage, containers, conveyances, goods or postal parcels from others in such a manner as to prevent the spread of infection or contamination.
legislation	the range of legal, administrative or other governmental instruments which may be available for States Parties to implement the IHR. This includes legally binding instruments, e.g., state constitutions, laws, acts, decrees, orders, regulations, and ordinances; legally non-binding instruments, e.g., guidelines, standards, operating rules, administrative procedures or rules; and other types of instruments, e.g., protocols, resolutions, and inter-sectoral or inter-ministerial agreements. This encompasses legislation in all sectors, e.g., health, agriculture, transportation, environment, ports and airports, and at all applicable governmental levels, e.g., national, intermediate, community/primary.
Member States (WHO)	the 193 current Member States of the WHO, in accordance with Chapter III of the WHO Constitution and currently identified on http://www.who.int/ihr/ and any States which may hereafter become a Member State of the WHO in accordance with the Constitution.

monitoring	the process of maintaining regular overview of the implementation of activities, with the aim of ensuring that input deliveries, work schedules, targeted outputs and other required actions are proceeding as planned. The intermittent performance and analysis of routine measurements, aimed at detecting changes in the environment and health status of populations (*Adapted from Last JM, ed. A Dictionary of Epidemiology, 2000*). Monitoring in the context of surveillance and response refers to the routine and continuous tracking of the implementation of planned activities and of the overall performance of the surveillance and response systems. It allows for tracking of progress in implementation of planned activities, ensuring that planned targets are achieved in a timely manner, identifying problems in the system that require corrective measures, providing a basis for re-adjustment of resource allocation based on ongoing needs and priorities and ensuring responsibility and accountability for defined activities.
national legislation	see Legislation.
National IHR Focal Point	the national centre, designated by each State Party, which shall be accessible at all times for communications with WHO IHR Contact Points in accordance with IHR (2005).
notifiable disease	a disease that, by statutory/legal requirements, must be reported to the public health or other authority in the pertinent jurisdiction when the diagnosis is made (*Adapted from Last JM, ed. A Dictionary of Epidemiology, 2000*).
notification	in the context of the IHR, notification is the official communication of a disease/health event to the WHO by the health administration of the Member State affected by the disease/health event.
outbreak	an epidemic limited to localized increase in the incidence of a disease, e.g., in a village, town or closed institution (*Adapted from Last JM, ed. A Dictionary of Epidemiology, 2001*).
personal protective equipment	specialized clothing and equipment designed to create a barrier against health and safety hazards; examples include eye protection (e.g. goggles or face shields), gloves, surgical masks and particulate respirators.
point of entry	a passage for international entry or exit of travellers, baggage, cargo, containers, conveyances, goods and postal parcels as well as agencies and areas providing services to them on entry or exit (IHR (2005)).
port	a seaport or a port on an inland body of water where ships on an international voyage arrive or depart (IHR (2005)).
priority diseases	diseases that are of concern for a country with set criteria for the identification of these diseases.

public health	the science and art of preventing disease, prolonging life and promoting health through organized efforts of society. It is a combination of sciences, skills, and beliefs that is directed to the maintenance and improvement of the health of all people through collective or social actions. The goals are to reduce the amount of disease, premature death and disease produced discomfort and disability in the population (summarized from John Last's dictionary of epidemiology).
public health emergency of international concern	an extraordinary event which, as provided in the IHR, is determined (i) to constitute a public health risk to other States through the international spread of disease and (ii) to potentially require a coordinated international response public health risk". See definition of "public health risk" (IHR (2005)).
public health risk	the likelihood that an event that may adversely affect the health of human populations, with an emphasis in the IHR for events that may spread internationally or may present a serious and direct danger to the international community (IHR (2005)).
published	in the context of this document published means, available in a publicly accessible domain, with a reference or URL provided.
quarantine	the restriction of activities and/or separation from others of suspect persons who are not ill; or of suspect baggage, containers, conveyances or goods in such a manner as to prevent the possible spread of infection or contamination (IHR (2005)).
recall	to remove from further sale or use, or to correct, a marketed product; the process of recalling the affected product, encompassing all tiers of the affected product distribution system.
reservoir	an animal, plant or substance in which an infectious agent normally lives and whose presence may constitute a public health risk (IHR(2005)).
risk	a situation in which there is a probability that the use of, or exposure to an agent or contaminated product will cause adverse health consequences or death.
risk assessment	the qualitative or quantitative estimation of the likelihood of adverse effects that may result from exposure to specified health hazards or the absence of beneficial influences (*Adapted from Last JM, ed. A Dictionary of Epidemiology, 2001*).
risk communication	for public health emergencies risk communication includes the range of communication capacities required through the preparedness, response and recovery phases of a serious public health event to encourage informed decision making, positive behaviour change and the maintenance of trust (*WHO Communications working group report March 2009*).
States Parties	the States Parties to the IHR (2005) which are the 193 WHO Member States, and the Holy See, currently identified on www.who.int/ihr/ and any States which may hereafter accede to the IHR (2005) in accordance with the terms of the Regulations and the WHO Constitution.

stewardship	the WHO highlights health stewardship as a new concept which encompasses setting and enforcing the rules of the game and providing strategic direction for all parties involved. The concept was developed and defined as the careful and responsible management of the well-being of the population, the very essence of good government. It involves tasks, such as generating intelligence; formulating strategic policy direction; ensuring tools for implementation, such as, powers, incentives and sanctions; building coalition and building partnerships; ensuring a fit between policy objectives and organizational structure and culture; and ensuring accountability (WHO Report, WHR2000).
surveillance	the systematic ongoing collection, collation and analysis of data for public health purposes and the timely dissemination of public health information for assessment and public health response as necessary (IHR (2005)).
trained staff	individuals who have gained the necessary educational credentials and/or have received appropriate instruction on how to deal with a specific task or situation.
urgent event	a manifestation of a disease or an occurrence that creates a potential for disease which may have a serious public health impact and/or is of an unusual or unexpected nature, with a high potential for spread. Note: the term 'urgent' has been used in combination with other terms, e.g., infectious event or chemical event, in order to simultaneously convey both the nature of the event and the characteristics that make it 'urgent' (i.e., serious public health impact and/or unusual or unexpected nature with high potential for spread).
work plan	an activity plan developed for implementing each major function related to developing the IHR core capacities, e.g., a training plan, monitoring and evaluation plan, plan for supervisions, laboratory strengthening plan, etc.
vector	an insect or other animal which normally transports an infectious agent that constitutes a public health risk (IHR (2005)).
verification	the provision of information by a State Party to WHO confirming the status of an event within the territory or territories of that State Party (IHR).
WHO IHR Contact Point	the unit within WHO which shall be accessible at all times for communications with National IHR Focal Points. The IHR Contact Points are at Regional Offices in all six WHO regions.
zero reporting	the reporting of 'zero case' when no cases of a particular disease have been detected by the reporting unit. This allows the next level of the reporting system to be sure the data reported has a zero value as opposed to being lost or omitted.
zoonosis	any infection or infectious disease that is naturally transmissible from vertebrate animals to humans (WHO Website www.who.int/topics/zoonoses/en/).

1. Introduction

1.1 International Health Regulations (2005) Background

The International Health Regulations (IHR) were first adopted by the World Health Assembly (WHA) in 1969 and covered six diseases. The Regulations were amended in 1973, and then in 1981 to focus on three diseases: cholera, yellow fever and plague. In consideration of the increase in international travel and trade, and the emergence, re-emergence and international spread of disease and other threats, the WHA called for a substantial revision in 1995. The revision extended the scope of diseases and related health events covered by the IHR to take into account almost all public health risks (biological, chemical or radiological or nuclear in origin) that might affect human health, irrespective of the source. The revised Regulations entered into force on 15 June 2007.

All States Parties are required to have or develop minimum core public health capacities to implement the IHR (2005) effectively. In accordance with articles 5 and 13, respectively, of the IHR (2005):

> Each State Party shall develop, strengthen and maintain, as soon as possible but no later than five years from the entry into force of these Regulations for that State Party (i.e. by 2012), the capacity to detect, assess, notify and report events in accordance with these Regulations, as specified in Annex 1[1],...

and

> ...the capacity to respond promptly and effectively to public health risks and public health emergencies of international concern as set out in Annex 1.

1.2 Purpose and Scope

This document proposes a framework and processes for States Parties to monitor the development of their core capacities at the national, intermediate and community/primary response levels, in accordance with the requirements for core capacity development in Annex 1 of the IHR (2005) and contributes to Article 54 of the IHR (2005), which calls on States Parties and WHO to report on the implementation of the IHR to the WHA.

This monitoring framework provides:

- 20 global indicators for monitoring the development of IHR core capacities for reporting annually to the WHA by all States Parties; and
- other indicators for monitoring the comprehensive development, strengthening, and maintenance of States Parties' IHR core capacities.

Countries are encouraged to report on all 28 indicators.

This monitoring document is not legally binding. It does, however represent a consensus of technical expert views drawn globally from WHO Member States, technical institutions, partners, and from within WHO.

---

1 IHR 2005 article5 and 13, and Annex 1A: 5: http://www.who.int/ihr/9789241596664/en/index.html

1.3 The Process Used to Develop the Monitoring Framework

The list of core capacity required to implement the IHR and the appropriate indicators for monitoring their development were developed by a group of technical experts in accordance with Annex 1 of the Regulations. The framework is based both on existing knowledge and on concepts and models that have been successfully applied in monitoring capacity development activities. It builds, in particular, on the experts' knowledge about the current capacity of States Parties and the existing regional and country strategies for capacity development, as well as on other available resources and tools. These tools also build on others used for IHR core capacity assessment by States Parties.

1.4 Intended Users

This document is primarily intended for use by government authorities, including public health professionals, managers, National IHR Focal Points (NFPs), authorities at Points of Entry (PoE), representatives of sectors dealing with animal health, food safety, the environment, water safety, nuclear, radiological and chemical disciplines; as well as other sectors and stakeholders responsible for implementing the IHR. Decision makers and international development and donor agencies may also use the document to target country support for IHR implementation.

2. Objectives of Monitoring the Development and Strengthening of IHR Core Capacities

States Parties and WHO are required to report to the WHA (article 54 of the IHR (2005)) on a yearly basis (resolution 61.2), on progress achieved in providing support to Member States on compliance with, and implementation of the Regulations. It is important to note that the monitoring process described in this document is not intended for use as a tool to rank the performance of countries or to compare performance between particular countries. Rather, it is intended as a tool to assist individual countries in monitoring progress towards meeting the core capacity requirement of the IHR.

With respect to States Parties:

- to enable States Parties to carry out self-assessments on the development and strengthening of their core capacity;

- to assist States Parties in determining their progress in developing core capacity and identifying areas where improvement is needed;

- to provide States Parties with relevant information for use in planning strategic, evidence-based programmes and improving them where necessary, as well as appropriate feedback and recommendations to facilitate decision-making;

- to allow States Parties to provide WHO, on a yearly basis, with information on the status of IHR implementation;

- to enable States Parties to demonstrate, both at the country level and to external stakeholders (e.g. international donors and development agencies), if desirable, that their countries meet the IHR requirements regarding core capacity.

With respect to WHO:

- to facilitate the identification of specific areas of WHO and partner support to countries;
- to enable WHO to report annually to the World Health Assembly on the progress made by States Parties in developing core capacity.

3. Conceptual Framework for Monitoring IHR Core Capacity Strengthening

In developing the monitoring framework, consideration has been given to the IHR mandate that:

> States Parties shall utilize existing national structures and resources to meet their core capacity requirements under these Regulations, including with regard to: (a) their surveillance, reporting, notification, verification, response and collaboration activities; and (b) their activities concerning designated airports, ports and ground crossings (IHR 2005; Annex 1).

The expert working group acknowledged that States Parties may choose or need to mobilize additional resources or re-allocate resources to develop, strengthen or maintain these capacities. The expert working group also recommended that wherever possible, data should be collected through relevant regional programmes and strategies such as the Asia-Pacific Strategy for Emerging Diseases (APSED) in the Western Pacific Region and South-East Asia Region; the Integrated Disease Surveillance and Response strategy (IDSR) in the African region; the Emerging Infectious Diseases (EID) Strategies in the Americas and the Eastern Mediterranean Regions; and strategies in the European Region.

Building on these recommendations, a checklist (see Appendix 13.1) for meeting IHR core capacity requirements was developed, generally based on three models, the Capability Maturation Index (CMI) model suggesting progressive levels of achievement; the Ripple Model which describes staged capacity building, and the Potter's model advocating the strengthening of existing structures, systems and institutional capacities (see appendix 13.2 for more detailed description of these models).

The CMI model provided useful guidance on how to measure progress in capacity development according to the achievement of meaningful levels of capability, which are described as foundational, moderate, strong, and advanced.

An underlying assumption of the checklist is that capacity building efforts can be gauged, as a system matures from a reactive to a proactive and managed processes and when progress from one level to the next is distinctly defined. The concepts of the Ripple model were useful in determining how to demonstrate changes over time in terms of inputs, process, output and outcome, and in defining meaningful transition between capability levels. Potter's model informed the selection of the building blocks for developing the health system within each

capability level. These building blocks include institutional capacity, stewardship, leadership, appropriate structures and facilities, resources (human, material and financial), effective systems and functional processes.

A combination of all these three models that are used in developing the framework. The following criteria were used, to measure the maturation from one level to the next and no one model is used exclusively. Taking into account these concepts, the following criteria were used in developing the indicators and their attributes:

1. Relevance to the IHR: The indicators and attribute must be relevant to advancing the objective of developing capacity to detect, assess, report, notification, verify and respond to public health risks and emergencies of national and international concern.

2. Coverage: The indicators and attributes reflect geographical coverage at the national, intermediate, and community/primary response levels.

3. How the indicators and attributes apply to IHR relevant hazards, including biological (infectious, zoonotic and foodborne human pathogens) chemical, radiological and nuclear hazards.

4. The quality of the function or service: Quality refers to compliance with national and international standards or procedures relevant to the attribute.

5. Timeliness in application of functions and services.

6. Documentation and dissemination of practices.

4. Organization of the Monitoring Checklist

The monitoring process reflected in this framework involves the assessment of implementation of eight core capacities through a checklist of indicators specifically developed for monitoring each core capacity, capacity development at PoE and capacity development for the IHR-related hazards (infectious, zoonotic and food safety (biological), radiological and nuclear, and chemical). The structure of the checklist includes the following: the specific component of the core capacity to be addressed, the recommended pre-requisites for developing the capacity, the specific indicators related to each component, and the attributes of each indicator presented as levels of capability.

Figure 1: Example of the organization of the Monitoring Checklist for the core capacities consisting of the components, indicators, attributes and the capability levels

Component of core Capacity	Country level Indicator	Current status of development of core capacities			
		<1 Foundational	1 Input and process	2 Output and outcome	3 Additional achievements
		Attribute	Attribute Attribute Attribute	Attribute Attribute	Attribute

The core capacities

The core capacities (described below) are those capacities needed for detecting and responding to the specified human health hazards and events at PoE. The eight core capacities are the result of an interpretation, by a technical group of experts, of the IHR 2005 capacity requirements. They reflect the operational meaning of the capacities required to detect, assess, notify and report events, and to respond to public health risks and emergencies of national and international concern.

The components

To assess the development and strengthening of core capacities, a set of components are measured for each of the eight core capacities.

The indicators

For each component a set of one to three indicators are used to measure the status and progress in developing and strengthening the IHR core capacities.

The attributes

Each indicator represents a complex set of activities or elements. It may be difficult to measure these indicators with a simple question that requires one 'yes' or 'no' answer. Therefore, each indicator is assessed by using a group of specific elements referred to as 'attributes' in this document. One to three questions are derived from each attribute, and these are administered through a questionnaire.

The data collection forms

A set of questionnaires with questions addressing all the attributes associated with the core capacities and hazards will be distributed to countries each year. This questionnaire includes a section to capture information on attributes that have been partially achieved and other relevant data. These questionnaires are to be completed annually and submitted to WHO.

The capability levels

Each attribute has been assigned a level of maturity, or a 'capability level.' Attainment of a given capability level requires that all attributes at lower levels are in place.

In the checklist, the status of core capacity development is measured at four capability levels: **Level <1:** prerequisites (foundational level); **Level 1:** inputs and processes; **Level 2:** outputs and outcomes; **Level 3:** additional.

- **Capability level <1** is the foundation, which typically requires the presence of certain critical attributes in order to proceed to the next level of capability, that is, the attributes at level < 1 are considered prerequisites to reaching level 1.

- **Capability level 1** reflects the achievement of moderate levels of functioning and usually implies that the required inputs and processes related to the attribute are present.

- **Capability level 2** reflects the transition from inputs and processes to outputs and outcomeњs, indicating strong levels of functioning. **States Parties are expected to achieve levels 1 and 2 by 2012** with respect to all core capacity. The WHO Director-General may grant an extension of this deadline for up to a maximum of four years.

- **Capability level 3** reflects advanced achievement whereby knowledge, findings, lessons learnt and experience gained from the outputs and outcomes are evaluated, documented and shared both within the country and internationally.

The capability levels are examined further in Section 6.

5. Areas to be Monitored

Human health hazards

The human health hazards include those of biological (infectious, zoonotic, food safety and other), chemical, radiological and nuclear origin or source.

Events at PoE

All core capacities and potential hazards apply to PoE and thus enable the effective application of health measures to prevent international spread of disease. States Parties are required to designate the international airports and ports (and where justified for public health reasons, a State Party may designate ground crossings) which will develop specific capacities in the application of the public health measures required to manage a variety of public health risks.

The Core Capacities

Core capacity 1: National legislation, policy and financing

The IHR (2005) provide obligations and rights for States Parties. States Parties have been required to comply with and implement the IHR starting with their entry into force in 2007. To do so, States Parties need to have an adequate legal framework to support and enable implementation of all of their obligations and rights. In some States Parties, implemention of the IHR may require that they adopt implementing or enabling legislation for some or all of these obligations and rights. New or modified legislation may also be needed by States to support the new technical capacities being developed in accordance with Annex 1. Even where new or revised legislation may not be specifically required under the State Party's legal system for implementation of provisions in the IHR (2005), States may still choose to revise some legislation, regulations or other instruments in order to facilitate implementation in a more efficient, effective or beneficial manner. Implementing legislation could serve to institutionalize and strengthen the role of IHR (2005) and operations within the State Party. It can also facilitate coordination among the different entities involved in implementation. See detailed guidance on IHR implementation in national legislation at (http://www.who.int/ihr/legal_issues/legislation/en/index.html).

In addition, policies which identify national structures and responsibilities (and otherwise support implementation) as well as the allocation of adequate financial resources) are also important.

Core capacity 2: Coordination and NFP communications

The effective implementation of the IHR requires multisectoral/multidisciplinary approaches through national partnerships for effective alert and response systems. Coordination of nation-wide resources, including the designation of an IHR NFP, which is a national centre for IHR communications, is a key requisite for IHR implementation. The IHR NFP should be accessible at all times to communicate with the WHO IHR Contact Points and with all relevant sectors and other stakeholders in the country. The States Parties must provide WHO with annually updated contact details for the national IHR Focal Point.

Core capacity 3: Surveillance

The IHR require the rapid detection of public health risks, as well as the prompt risk assessment, notification, and response to these risks. To this end, a sensitive and flexible surveillance system is needed with an early warning function is necessary. The structure of the system and the roles and responsibilities of those involved in implementing the system need to be clear and preferably should be defined through public health policy and legislation. Chains of responsibility need to be clearly identified to ensure effective communications within the country, with WHO and with other countries as needed.

Core capacity 4: Response

Command, communications and control operations mechanisms are required to facilitate the coordination and management of outbreak operations and other public health events. Multidisciplinary/multisectoral Rapid Response Teams (RRT) should be established and be available 24 hours a day, 7 days a week. They should be able to rapidly respond to events that may constitute a public health emergency of national or international concern. Appropriate case management, infection control, and decontamination are all critical components of this capacity that need to be considered.

Core capacity 5: Preparedness

Preparedness includes the development of national, intermediate and community/primary response level public health emergency response plans for relevant biological, chemical, radiological and nuclear hazards. Other components of preparedness include mapping of potential hazards and hazard sites, the identification of available resources, the development of appropriate national stockpiles of resources and the capacity to support operations at the intermediate and community/primary response levels during a public health emergency.

Core capacity 6: Risk communication

Risk communications should be a multi-level and multi-faceted process which 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 outbreaks of disease.

For any communication about risk caused by a specific event to be effective, it needs to take into account the social, religious, cultural, political and economic aspects associated with the event, as well as 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 the appropriate channels is also important.

Communication partners and stakeholders in the country need to be identified, and functional coordination and communication mechanisms established. In addition, it is important to establish communication policies and procedures on the timely release of information with transparency in decision making that is essential for building trust between authorities, populations and partners. Emergency communications plans need to be developed, tested and updated as needed.

Core capacity 7: Human resources

Strengthening the skills and competencies of public health personnel is critical to the sustainment of public health surveillance and response at all levels of the health system and the effective implementation of the IHR.

Core capacity 8: Laboratory

Laboratory services are part of every phase of alert and response, including detection, investigation and response, with laboratory analysis of samples performed either domestically or through collaborating centres. States Parties need to establish mechanisms that assure the reliable and timely laboratory identification of infectious agents and other hazards likely to cause public health emergencies of national and international concern, including shipment of specimens to the appropriate laboratories if necessary.

6. Definition of Capability Levels in the Monitoring Framework

For the purposes of measurement of progress, major components of each core capacity defined and indicators selected. These indicators are further defined by relevant attributes. For each core capacity, four distinct capability levels are characterized:

- **Capability Level <1** (the foundational[1] level) includes attributes that are key to the development of the inputs and processes needed for the implementation of the IHR.

---

1   Foundational here means key elements or functions that should be in place, on which inputs and processes should build.

- **Capability Level 1** is generally characterized as a 'moderate' level ant attributes listed here include the 'inputs and processes' needed to build or maintain IHR core capacities.

- **Capability Level 2** represents a 'strong' technical capacity and a high level of performance with defined public health outputs and outcomes.

- **Capability Level 3** represents an advanced level of capabilities and achieving a 'reference model' of capability[1].

7. Data Analysis and Interpretation of Findings

7.1 Data Analysis

To meet the IHR core capacity requirements for 2012, countries need to assess all level 1 and 2 attributes included in the checklist regardless of the country's current level of IHR implementation.

An analytical scheme for tracking the attainment of the core capacities has been developed that allows the analysis of country data with a high level of detail for each of the 8 core capacities, PoE, and the four hazards. The main purpose of the scheme is to enable countries to measure their status at any point in time, and assess their progress over time. This facilitates the identification of strengths and weaknesses as well as incremental achievements from year to year. The expert group acknowledged that it was impractical to develop a comprehensive weighting system that takes into account the importance of each attribute relative to the others. Therefore, although the attributes do not necessarily carry the same weight in an assessment of capabilities, they are treated as such to simplify analysis. Two distinctive values are used in assessing the national core capacity - the capability level and the attribute score. They apply to each indicator, component and core capacity, as well as to points of entry and hazards.

7.1.1 Analysis of the Capability Level

The capability level is the highest level for which at least one attribute is present. It takes the achievement of at least one attribute in Level < 1 and one attribute in Level 1 to progress to Level 1. To progress to Level 2 however, all attributes of Level 1 and at least one attribute of Level 2 needs to be achieved. To progress to Level 3, all attributes of Level 1 and 2 and at least one attribute of Level 3 needs to be achieved. The capability level can therefore take the value < 1, 1, 2 or 3.

---

1 This involves the generation of information, products and tools that reflect examples of models of best practices and standards that can be adopted or shared globally. In order for an attribute to be scored at Level 3, a good explanation of products and tools and URLs of the relevant websites should be included in the checklist. This will further enable sharing of products and tools.

7.1.1.1 Capability level of an Indicator

The Capability Level of an indicator is based on all the Level 1 and Level 2 attributes within the indicator. An indicator is considered achieved if all the attributes within that indicator are achieved.

Figure 2: Capability level of an Indicator
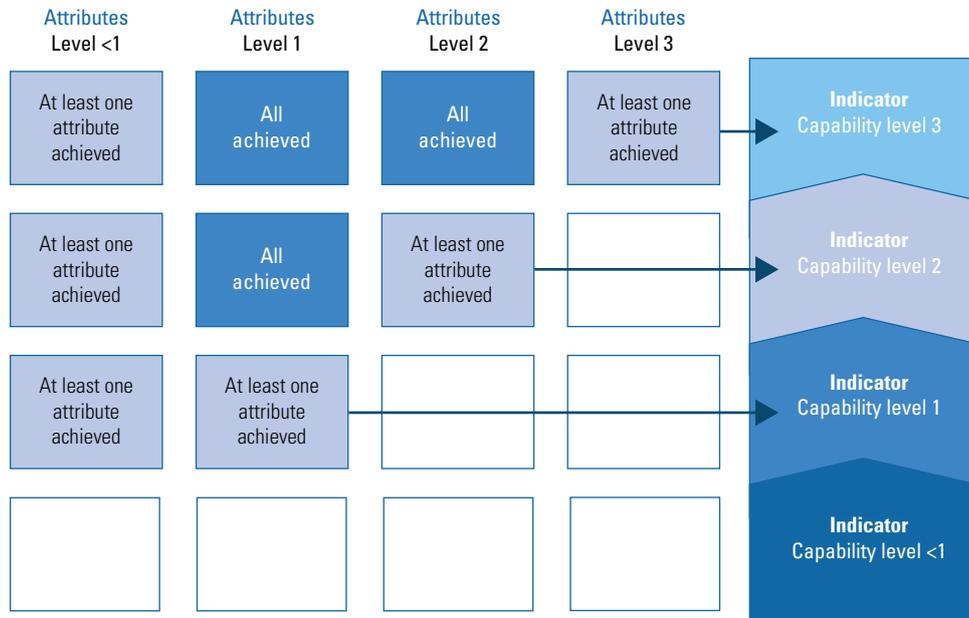
For any Indicator, the level is:

Level <1: If no Level <1 attribute or Level 1 attribute is achieved.

Level 1: If at least one Level <1 attribute **and** one Level 1 attribute are achieved.

Level 2: If all Level 1 attributes **and** at least one Level 2 attribute are achieved.

Level 3: If all Level 1 and Level 2 attributes, **and** at least one Level 3 attribute are achieved.

7.1.1.2 Capability level of a Core Capacity

The capability level of a component is the same as that of the indicator under this component, as there is a one-to-one relationship between a component and an indicator.

Figure 3: Capability level of a Core Capacity
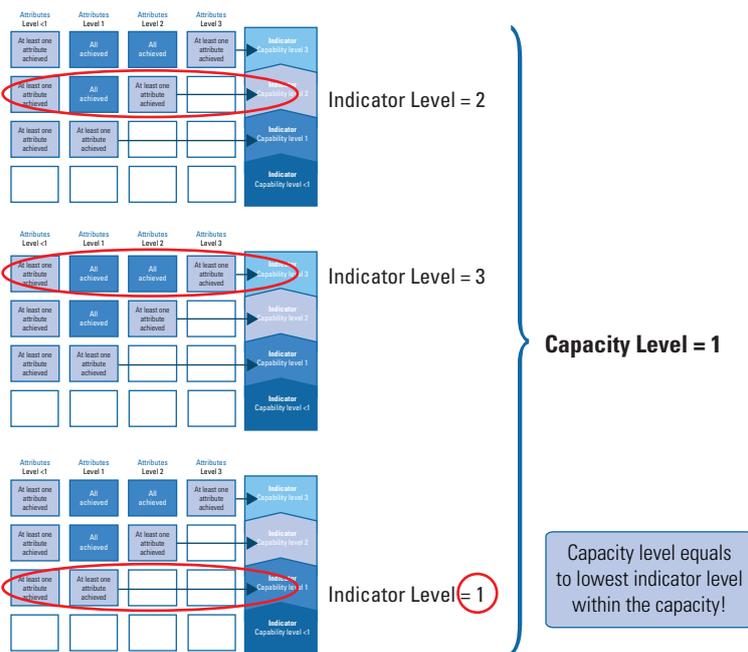
The Capability Level of a Core Capacity is determined by the lowest indicator level of all indicators under this Core Capacity.

Indicator Level = 2

Indicator Level = 3

Capacity Level = 1

Capacity level equals to lowest indicator level within the capacity!

Indicator Level = 1

Achieving all the attributes in levels 1 and 2 means that countries have met the requirements for 2012.

7.1.2 The Attribute Score

The attribute score measures the progress made towards the attainment of an individual core capacity.

7.1.2.1 Analysis of the Attribute Score for an Indicator

In the case an indicator, the attribute score is the proportion of the attributes achieved at capability levels 1 and 2 combined out of the total number of attributes at capability levels 1 and 2 for that indicator. Attributes at capability levels <1 and 3 are not counted in the attribute score. The scores, ranging from 0 to 100%, are automatically calculated using data analysis software embedded in the internet-based tool. For the sake of simplicity, all attributes are given the same weight.

In calculating the attribute score, the numerator is the total number of attributes achieved in levels 1 and 2 combined, and the denominator is the sum of Level 1 and 2 attributes. For example, if for one indicator:

- the number of Level 1 attributes achieved at capacity level 1   = A and
- the total number of Level 1 attributes at capacity level 1   = B and
- the number of Level 2 attributes achieved at capacity level 2   = C and
- the total number of Level 2 attributes at capacity level 2   = D then

the Attribute Score for this indicator = (A+C)/(B+D).

7.1.2.2 The attribute score for a component

The attribute score for a component is the average of the attribute scores for all indicators under that component.

7.1.2.3 The attribute score for the core capacity

The attribute score for a core capacity is the average of attribute scores for all components under that core capacity.

7.2 Interpretation of Findings

7.2.1 Interpretation of the Capability Levels

7.2.1.1 Capability Level < 1

Attributes listed in Level < 1 are foundational elements, for implementing and facilitating the implementation of IHR. Attributes identified at that level in the country IHR work plan but not achieved could be considered as a priority for implementation. While attributes at Level < 1 are not considered as part of the minimum core capacities required to be achieved by 2012, their entry is an acknowledgement of the efforts made by States Parties towards achieving this goal.

7.2.1.2 Capability Level 1

The attainment of capability level 1 reflects a good level of organization and allocation of resources with specific units designated to carry out necessary functions, relevant guidelines, standard operating procedures (SOPs) and plans developed and disseminated at national and sub-national levels. Processes are usually in place, with some actions taken towards implementing policies, plans, guidelines and SOPs.

7.2.1.3 Capability Level 2

The attainment of capability level 2 reflects achievement of the IHR requirements for the indicator, component or core capacity for 2012. At this level, functions, services and responses are timely and the systems and processes are documented, evaluated and updated as needed. This reflects effective implementation of relevant activities at both national and sub-national levels, as well as implementation across IHR relevant hazards (such as biological, chemical and radiological).

7.2.1.4 Capability Level 3

The IHR (2005) call upon countries with sufficient resources, expertise and capacity to provide support beyond their borders to other States Parties towards achieving IHR core capacity. The attainment of level 3 capability by States Parties their contributions in this way to the global public health community, which are both acknowledged and encouraged.

7.2.2 Interpretation of Attribute Scores

The status of achievement for an indicator, component and core capacity is determined by the presence of attributes. When a State Party has attained all attributes in Level 1 and Level 2, States Parties will have met their minimum IHR core capacity obligations for 2012. If a country does not indicate a particular attribute as absent or present, it is counted as absent for scoring purposes.

7.3 States Parties' reports

The reports for each country provide an indication of their status in implementing the IHR at a point in time as well as progress over time in developing the eight core capacities, the capacity for hazards and PoE. It also provides further details on particular components and indicators of interest. Appendix 13.4 is an example of a country overview of IHR core capacity development status.

8. Outputs

8.1 Information products

Information products include:

- Detailed Individual Country Reports (Recipients: Country IHR-NFP, WHO Country Office, WHO Regional Office, Headquarters).

- Reports of individual States Parties on progress made in the development of core capacity; temporal comparisons of progress within individual core capacity (Recipients: Country IHR-NFP, WHO Country Office, WHO Regional Office, Headquarters).

- WHO Regional Office Aggregate Report of countries in the specific region (Recipients: WHO Regional Office).

- Aggregate Progress Report of State Parties (Recipients: WHA, Executive Board Members, WHO).

The countries and WHO will have access to this information. Any other country specific products should be generated and disseminated by the States Parties as they deem necessary.

8.2 Visualization of data

An IHR internet-based tool provides country profiles on the status of core capacities as well as charts, graphs, and geographic information systems-based visualizations (maps).

9. Data Management at the national and global Levels

The proposed data collection tool is the monitoring checklist (Appendix 13.1), can be completed in the form of a data collection form (questionnaire) on the Internet, a fillable PDF form or alternatively, the form can be printed out and submitted to WHO (see example of questionnaire in Appendix 13.3). Alternately, the data collection form can be printed and submitted to WHO as a hardcopy. Data collected will be stored in a secure database at WHO, and country confidentiality will be assured in that the data will be accessible only to IHR NFPs and the WHO. The data collection tool assures country confidentiality[1] and provides summary results that facilitate planning and mobilization of resource. Completion of the questionnaire by national respondents could be carried out through a process led by the NFP, in consultation with the subject area national experts in the country, and if requested, with the assistance of WHO regional and country offices. Findings and recommendations will be provided by WHO to the country IHR NFP who in turn can provide feed back to relevant stakeholders. Figure 4 summarizes the data management processes between WHO and the country.

Figure 4: The Process of Data Collection, Analysis, and Feedback to Users
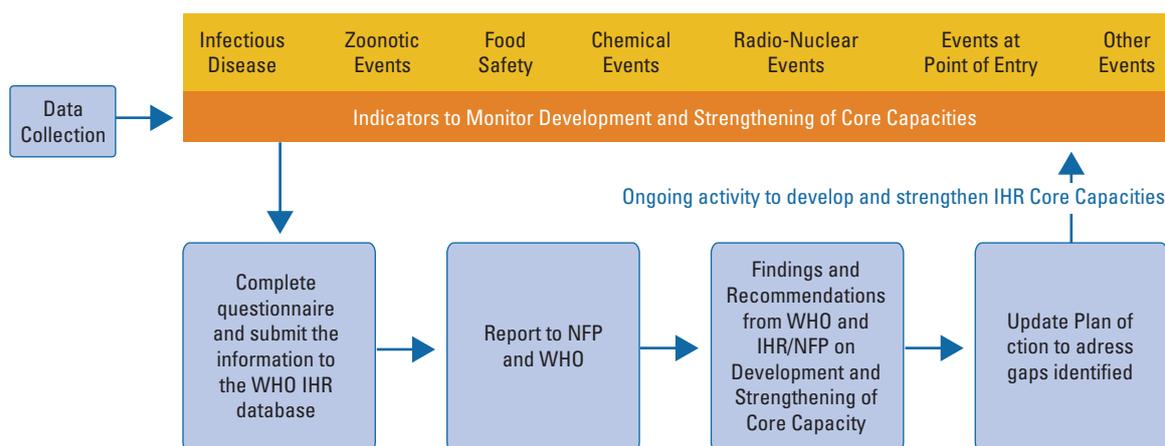
WHO support may be requested to assist in interpreting the results or making recommendations for follow up actions, and to assist in efforts to strengthen specific capacities. In addition to the status report andsummary of findings, countries are encouraged to interpret and use the data to take action to address country-specific priorities.

---

1   Countries cannot see the data from another country.

10. Data Management at the Global Level

Data for monitoring the development and strengtheningof IHR core capacities will be managed within the framework of WHO's Corporate Strategy, utilizing the WHO Open Health platform, a framework for integrating public health tools and data, and a part of the Global Health Observatory[1]. The Open Health platform is a suite of integrated and inter-operable[2] tools for data collection, data management, analysis, presentation of data in diverse formats, reporting, exchange of information, and data security. The Open Health platform connects and leverages existing tools and services, to support a wide range of applications for disease surveillance, district health management, programme management, monitoring and other activities. It operates in different technological environments (e.g., internet-based portal, enterprise, stand alone).

The IHR database will be part of the confederated Open Health platform databases, which constitute the Global Health Observatory. Electronic data is housed in a secured environment with appropriate user access rights. Enhanced analysis, reporting and visualization tools are part of the application. The IHR data architectural components include databases, data services and IHR forms application. A structured query language (SQL) database is used to store the data.

11. Country Level Process for Collecting Data on Indicators

States Parties will report on indicators through an IHR NFP led process, with WHO support if requested. Countries may use one of two sets of indicators, notably the complete list of 28 indicators or the 20 indicators that will be used to report to the WHA. Countries are encouraged to report on the complete list of indicators (Appendix 13.7) but have the option to report only on the indicators that will be used to report to the WHA (20 indicators listed in section XII.). The level of achievement for each of the indicators will be determined in the countries. Countries may choose to establish a facilitating group comprising, for example, persons responsible for developing the different core capacity, staff working with the country's hazards' surveillance and response systems, and representatives of stakeholders with responsibilities in IHR implementation.

The workshop

While countries may choose other methods of collecting information on progress in developing and strengthening their IHR core capacity, it is recommended that they each organize a workshop with their stakeholders to determine their levels of achievement and to complete the monitoring checklist and/or the electronic data reporting form. The proposed content of such workshops can be seen in Appendix 13.5 IHR Core Capacity Monitoring Workshop outline.

---

1   In 2005, WHO launched the Global Observatory for eHealth; the Observatory's mission is to improve health by providing States Parties with strategic information and guidance on effective practices and standards.

2   Inter-operable is a property referring to the ability of diverse tools to work together.

Before the workshop takes place, it could be useful for the stakeholders (e.g. units or departments responsible for surveillance, response, points of entry, chemical hazards, etc.) to be given an opportunity to review the checklist and the electronic data reporting form through an internal process. This would allow them to prepare feedback on these tools for the workshop.

Experts on hazards, domains (such as points of entry), and/or the development and strengthening of core capacity should be invited to generate the discussions during the workshops. In addition, core capacity and hazards could be the focus of group discussions. The programme could also include discussion on how to address gaps identified and develop action plans.

It is important that countries collect qualitative information on the strengths, weaknesses, opportunities and threats related to improving their implementation of capacity-strengthening efforts. Part of this process could be a review of relevant existing documents (e.g. manuals, case definitions, reports on or analyses of surveillance data), which could benefit the monitoring exercise. These documents (or links to them) could be attached to the completed data collection form when completing it.

The mechanisms and systems to be used in the day-to-day monitoring of the IHR indicators will be determined by the countries, with a view to ensuring that they best meet the needs of the countries and remain country-specific.

Follow up action

Recommendations for addressing gaps identified (see Appendix 13.6 for example of a gap analysis matrix) and developing an action plan could be additional outputs of the workshop. The information gathered through the questionnaire should enable countries to develop plans for improving their IHR core capacity. It will also form the basis of the States Parties' report to the World Health Assembly and, if appropriate, may be used to request WHO support for further development.

12. WHA Indicators

The following 20 indicators have been selected for reporting to WHA (see details of selection criteria in Appendix 13.8). These indicators have been highlighted in bold font and with an asterisk in the checklist for easy identification):

1. Legislation, laws, regulations, administrative requirements, policies or other government instruments in place are sufficient for implementation of IHR.

2. A mechanism is established for the coordination of relevant sectors[1] in the implementation of the IHR.

3. IHR NFP functions and operations are in place as defined by the IHR (2005).

4. Indicator based surveillance includes an early warning[2] function for the early detection of a public health event.

5. Event based surveillance is established.

6. Public health emergency response mechanisms are established.

7. Infection prevention and control (IPC) is established at national and hospital levels.

8. A Multi-hazard National Public Health Emergency Preparedness and Response Plan is developed.

9. Priority public health risks and resources are mapped.

10. Mechanisms for effective risk communication during a public health emergency are established.

11. Human resources are available to implement IHR core capacity requirements.

12. Laboratory services are available to test for priority health threats.

13. Laboratory biosafety and laboratory biosecurity (Biorisk management) practices are in place.

14. General obligations at PoE are fulfilled.

15. Effective surveillance and other routine capacities is established at PoE[3].

16. Effective response at PoE is established.

17. Mechanisms for detecting and responding to zoonoses and potential zoonoses are established.

18. Mechanisms are established for detecting and responding to foodborne disease and food contamination.

19. Mechanisms are established for the detection, alert and response to chemical emergencies.

20. Mechanisms are established for detecting and responding to radiological and nuclear emergencies.

---

1 Relevant sectors and disciplines include, for example, all levels of the health care system (local community, primary public health response, intermediate and national/central levels) NGOs, and ministries of agriculture (zoonosis, veterinary laboratory), transport (transport policy, civil aviation, ports and maritime transport), trade and/or industry (food safety and quality control), foreign trade (consumer protection, control of compulsory standard enforcement), communication, defence (information about migration flow), treasury or finance (customs) of the environment, the interior, home office, health and tourism.

2 The early warning component detects departures from normal.

3 PoE surveillance is considered as part of the national surveillance system or as otherwise defined by the country.

13. APPENDICES

Appendix 13.1: **Recommended checklist for monitoring progress of IHR core capacity development**

Core capacity 1: National legislation[1], policy & financing

Component[2] of core capacity	Country level Indicator	Development of IHR core capacities by capability level			
		<1 Foundational	1 Inputs and processes	2 Outputs and outcomes	3 Additional achievements
National legislation[3] and policy	Legislation, laws, regulations, administrative requirements, policies or other government instruments in place are sufficient[4] for implementation of IHR.	Not Applicable[5]	Assessment[6] of relevant legislation, regulations, administrative requirements and other government instruments for IHR (2005) implementation has been carried out.	Recommendations following assessment of relevant legislation, regulations, administrative requirements and other government instruments are implemented.	Key elements of national/domestic IHR-related legislation are published[7].
			Review of national policies to facilitate IHR NFP functions and IHR technical core capacities[8] is carried out.	Policies to facilitate IHR NFP core and expanded[9] functions and to strengthen core capacities are implemented.	
Financing	Funding is available and accessible for IHR NFP functions and IHR core capacity strengthening.	Funding for IHR NFP functions is available.	Funding[10] available for IHR core capacities[11], IHR relevant hazards[12] and PoE.	IHR core capacities strengthened at the sub-national and community/primary response level in the last 12 months.	Resources committed[13] to meet IHR requirements beyond country's borders. (*Article 44 1c*)

1. The WHO Constitution provides that once a new revision of the IHR is adopted by the Health Assembly, all WHO Member States are automatically legally bound by it unless the Member State affirmatively and formally opts out of the new IHR within a limited time period. The deadline to reject or make a reservation to the IHR (2005) passed on 15 December 2006. No Member State rejected or opted out of the IHR (2005); only two Member States made reservations. Accordingly, all WHO Member States were legally bound as a matter of international law to the IHR (2005). Under the WHO Constitution and the IHR, it is not required that Member States individually ratify or sign the IHR in order to be bound by it as of 2007.

2. The capability level of a component is the same as that of the indicator under this component, as there is a one-to-one relationship between a component and an indicator.

3. Not strictly a technical core capacity, but important to facilitate implementation of other core capacities of technical nature.

4. A sufficient legal framework for complying with IHR obligations was required as of the date the IHR entered into legal force for all States Parties in 2007; the 2012 deadline for implementation of additional technical capacities in Annex 1 does not apply to the legal framework.

5. See 1.

6. While an assessment and revision of national legislation for IHR implementation is not explicitly required in the IHR, it has been strongly urged by the WHA, and advised in WHO guidance documents. For detailed information, see Section I.2 of the WHO Toolkit for IHR Implementation in National Legislation at http://www.who.int/ihr/3._Part_I_Questions_and_Answers.pdf.

Moreover, as technical capacities and national governance and legal contexts have evolved since entry into force of the IHR (2005) in 2007, an assessment of this period is advisable. For advantages and benefits of revising legislation, laws, regulations, administrative requirements, policies or other government instruments, see paragraph 4 on Page 14 of this document.

7. WHO does not endorse or recommend specific legislation. For information purposes, WHO publishes a compilation of national IHR-Related legislation adopted by States Parties on its web site http://www.who.int/ihr/7._Part_III_Compilation_of_examples_of_national_legislation.pdf. Other relevant documents and materials are available to download on the WHO IHR website, at: http://www.who.int/ihr/legal_issues/legislation/en/index.html.

8. Technical core capacities include, surveillance , response, preparedness, risk communication, human resources and laboratory.

9. In addition to coordination and communications, expanded roles of the NFP include risk assessment, core capacity development, advocacy etc.

10. This includes government or other sources of funding for IHR implementation.

11. While the IHR require that the technically core capacities in Annex 1 be developed, they do not require particular financing or related resource mechanisms. This approach of a budget-line item or other relevant allocation was deemed to be an important option by the Expert Group, depending upon the particular context.

12. Hazards such as zoonotic diseases, food safety events , chemical events, radiological and nuclear etc.

13. Committed: resources for IHR implementation.

Core capacity 2: Coordination[1] and NFP communications

Component of core capacity	Country level Indicator	Development of IHR core capacities by capability level			
		<1 Foundational	1 Inputs and processes	2 Outputs and outcomes	3 Additional achievements
IHR coordination, communication and advocacy[2]	A mechanism is established for the coordination of relevant sectors[3] in the implementation of IHR.	Coordination within relevant ministries on events that may constitute a public health event or risk of national or international concern.	National standard operating procedures (SOP)[4] or equivalent exist for the coordination between IHR NFP and relevant sectors.

A multi-sectoral, multidisciplinary body, committee or taskforce[5] addressing IHR requirements on surveillance and response for public health emergencies of national and international concern is in place. | Multisectoral and multidisciplinary coordination and communication mechanisms are tested and updated regularly through exercises or through the occurrence of an actual event. | Annual updates on status of IHR implementation to stakeholders across all relevant sectors conducted. |
| | IHR NFP functions and operations are in place as defined by the IHR (2005). | The IHR NFP[6] is established.

National stakeholders[7] in the implementation of IHR identified. | Obligations[8] of the IHR NFP under the IHR, are disseminated to relevant national authorities and stakeholders.

Roles and responsibilities of relevant authorities and stakeholders in regard to the IHR implementation are defined and disseminated.

IHR Event Information Site is used as an integral part of the IHR-NFP information resource[9]. | The IHR NFP provides WHO with updated contact information on the National IHR Focal Point annually and as necessary.

Stakeholders sensitized[10] on their roles and responsibilities under the IHR. | An active[11] IHR web site or page is in place.

Implementation of additional roles[12] and responsibilities to IHR NFP functions. |

1. A coordination mechanism (such as a multi-sectoral, multidisciplinary body, committee or task force addressing IHR requirements on surveillance) is available and functional (membership from all relevant sectors, established communications channels, access to decision-makers and contacts, joint activities, meeting reports, plans and evaluations.

2. Advocacy is a strategic process designed to get specific target audiences (such as political leaders and stakeholders) to demonstrate commitment to IHR implementation. Commitment may be shown through new or changed laws, increased funding, or active awareness-raising among all relevant stakeholders of the IHR and their roles in their implementation.

3. Relevant sectors and disciplines (private and public), for example, all levels of the health care system (national, sub-national and community/primary public health) NGOs, and ministries of agriculture (zoonosis, veterinary laboratory), transport (transport policy, civil aviation, ports and maritime transport), trade and/or industry (food safety and quality control), foreign trade (consumer protection, control of compulsory standard enforcement), communication, defence (information about migration flow), treasury or finance (customs) of the environment, the interior, home office, health and tourism.

4. should detail the terms of reference, roles and responsibilities of the IHR NFP; implementing structures; and stakeholders in the implementation of the IHR.

5. Countries decide who will chair this committee or taskforce, but it should include participation of the national IHR NFP in meetings and decision making processes.

6. The IHR NFP should have been established as of 2007, and comprise the following mandatory elements for all Member States: 24/7 availability for communications with WHO; the capacity to send urgent communications regarding IHR to WHO; information collection from all relevant sectors to send to WHO under IHR WHO (Arts. 5–12); urgent dissimination of IHR information from WHO to relevant government sectors etc.; functional communications channels with all sectors and decision-maker(s); and communications with competent authorities on health measures implemented.

7. Stakeholders are any groups, organizations or systems that can help affect or be affected by a public health event.

8. The States Parties obligations, rights and other provisions concerning SPs are included throughout the IHR and make up more than half the provisions in the IHR.

9. i.e. used at least monthly.

10. Specific activities (such as advocacy meetings, trainings, workshops etc.) carried out regularly to increase the awareness of the IHR with stakeholders including with relevant ministries and partners.

11. The webpage should be regularly reviewed and updated with timely information.

12. http://www.who.int/ihr/elibrary/legal/en/index.html.

Core capacity 3: Surveillance

Component of core capacity	Country level Indicator	Development of IHR core capacities by capability level			
		< 1 Foundational	1 Inputs and processes	2 Outputs and outcomes	3 Additional achievements
Indicator based[1], surveillance (also referred to as structured surveillance, routine surveillance, or surveillance for defined conditions)	Indicator based, surveillance[2] includes an early warning[3] function for the early detection of a public health event	A list of priority diseases[4], conditions and case definitions for surveillance is available. There is a specific unit designated for surveillance of public health risks.	Surveillance data on epidemic prone and priority diseases are <u>analysed</u> at least weekly at national and sub-national levels. Baseline estimates, trends and thresholds for alert and action are defined for the community/primary response level for priority diseases/events.	Timely[5] reporting from at least 80% of all reporting units takes place. Deviations or values exceeding thresholds are used for action at the primary response level[6] (Annex 1A Article 4a). Regular[7] feedback[8] of surveillance results is disseminated to all levels and other relevant stakeholders.	Evaluation of the early warning function of the indicator based surveillance system and country experiences, findings and lessons shared with the global community.
Event based surveillance[9]	Event based surveillance[10] is established	Unit(s) responsible for event-based surveillance[11] identified	Country SOPs and/or guidelines for event based surveillance[12] are available. Information sources[13] for public health events and risks[14] are identified. System or mechanisms in place at national and/or sub-national levels for capturing and registering public health events from a variety of sources[15].	SOPs and/or guidelines for event based surveillance are implemented. Active engagement of community leaders, networks, health volunteers, and other community members,in the detection and reporting of unusual events as required. Community/primary response level reporting evaluated and updated as needed.	Country experiences and findings on implementation of event-based surveillance, and the integration with indicator based surveillance, is documented and is shared with the global community. Arrangements with neighbouring countries to share data on surveillance and control of public health events that might be of international concern are made.
		The decision instrument in Annex 2 of the IHR (2005) is used to notify WHO	100% of events that meet criteria for notification under Annex 2 of IHR have been notified by NFP to WHO (Annex 1A Art 6b) within 24 hours of conducting risk assessments[16] (Article 6.1) over the last 12 months	All reports of urgent[17] events are assessed[18] within 48 hours of reporting (Annex 1A 6a) The IHR NFP responds to 100% of verification <u>requests from WHO</u> within 24 hours (Art 10). The use of the decision instrument is reviewed and procedures for decision making are updated on the basis of lessons learnt.	Country experiences and findings in notification and use of Annex 2 of the IHR are documented and shared globally.

1. Indicator-based surveillance is the routine reporting of cases of disease, and includes notifiable disease surveillance systems, sentinel surveillance, laboratory-based surveillance etc. This routine reporting is commonly health care facility-based with reporting done on a weekly or monthly basis.

2. Surveillance is the systematic ongoing collection, collation and analysis of data for public health purposes and the timely dissemination to those who need to know for public health action. Surveillance functions should be carried out according to international standards, with well defined roles, established chains of command and communications, nationally and internationally, relevant standards, guidelines and SOP, appropriate data management and analysis and regular feedback and supervision.

3. An early warning component detects departures from what is normal.

4. Priority diseases are those with the highest public health significance as defined by the country and should include the diseases in Annex 2 of the IHR.

5. As defined by country standards.

6. e.g., documented investigations of an actual disease situation other than acute flaccid paralysis (Any reports of AFP is assumed to be routinely investigated).

7. As defined by country.

8. e.g. Epi bulletins, electronic summaries, newsletters, surveillance reports, etc.

9. Event-based surveillance is the organized and rapid capture of information about events that are a potential risk to public health. This information can be rumours and other ad-hoc reports transmitted through formal channels (i.e. established routine reporting systems) and informal channels (i.e. media, health workers and NGO reports).

10. Indicator-based and event-based surveillance are not necessarily separate surveillance systems and both contribute to the early warning function critical for early detection and prompt response. Although the surveillance functions described are often common to both types of surveillance, the expert working group proposed that the two strategies be separated in this document. This would help countries better identify areas to strengthen in implementing this newer concept, particularly since routine surveillance (IBS) is already well established in many countries.

11. This may be part of the existing routine surveillance system.

12. Covers event capture, reporting, epidemiological confirmation, assessment and notification as appropriate.

13. Sources of information can include some, or all of the following: Health sources include poison centres, veterinary and animal health sources, environmental health services, pharmacovigilance centres, quarantine service, sanitation agencies and associated laboratories (water, food, environmental monitoring, etc.), food safety authorities/agencies, health inspection agencies (restaurants, hotels, buildings), water supply companies and competent authorities at PoE. Non-Health sources include radiation protection offices, radiological monitoring services, nuclear regulatory bodies, consumer protection groups, political sources, NGOs, embassies, the military, prisons, media, published sources (internet, academic press) and community based sources. Sources that reflect the impact of health events include pharmacies, to monitor drug consumption patterns; schools, to monitor student absenteeism; and metrological centres, to monitor effects of weather changes (rainfall, temperatures).

14. This includes events related to the occurrence of disease in humans, such as clustered cases of a disease or syndromes, unusual disease patterns or unexpected deaths as recognized by health workers and other key informants in the country; and events related to potential exposure for humans.

15. e.g. including veterinary, media (print, broadcast, community, electronic, internet etc.)

16. Risk assessment can be carried out at various levels (national or sub-national) depending on national structure.

17. For the purposes of Annex 1, the criteria for urgent events include serious public health impact and/or unusual or unexpected nature with high potential for spread.

18. Risk assessment can be carried out at various levels (national or sub-national) depending on national structure.

Core capacity 4: Response

Component of core capacity	Country level Indicator	Development of IHR core capacities by capability level			
		<1 Foundational	1 Inputs and processes	2 Outputs and outcomes	3 Additional achievements
Rapid response capacity	Public health emergency[1] response mechanisms are established.	Resources for rapid response during public health emergencies of national or international concern are accessible.	Public health emergency response management procedures are established for command, communications and control during emergency response operations. Case management guidelines for priority conditions.	Emergency response management procedures (including mechanism to activate response plan) are evaluated after a real or simulated public health response.	A functional, dedicated command and control operations centre in place.
			Rapid Response Teams[2] (RRTs) to respond to events that may constitute a public health emergency exists. SOPs and/or guidelines for RRT deployment is available.	Evaluations of response, including for timeliness[3] and quality, are systematically carried out and response procedures are updated as necessary. Multidisciplinary RRTs can be deployed[4] within 48 hrs[5] from first report of an urgent[6] event.	Assistance is offered to other States Parties for developing their response capacities or implementing control measures.
Case management	Case management procedures are implemented for IHR relevant hazards[7].	Case management guidelines are available for priority epidemic prone diseases.	Case management guidelines for priority diseases[8] and IHR relevant hazards[9].are available at relevant health system levels. SOPs are available for the management and transport of potentially infectious patients in the community and at PoE[10].	Patient referral and transportation[11] systems are implemented according to national or international guidelines. Appropriate staff (as defined by the country) is trained in management of relevant IHR related emergencies.	Country experiences on case management of major biological, chemical, radiological and nuclear contamination events are published and shared with the global community.

Continuation: Core capacity 4: Response

Component of core capacity	Country level Indicator	Development of IHR core capacities by capability level			
		<1 Foundational	1 Inputs and processes	2 Outputs and outcomes	3 Additional achievements
Infection control[12]	Infection prevention and control (IPC) is established at national and hospital levels.	Responsibility is assigned for surveillance of health-care associated infections. Responsibility is assigned for surveillance anti-microbial resistance[13].	A national IPC policy, or operational plan, is available. SOPs, guidelines and protocols for IPC are available to all hospitals. All tertiary hospitals have designated area(s) and defined procedures for the care of patients requiring specific isolation precautions[14] according to national or international guidelines. Norms are defined or guidelines developed for protecting health care workers from health-care associated infections.	Infection control plans are implemented nationwide. Management of patients with highly infectious diseases meets established IPC standards. Surveillance in high risk groups[15] to promptly detect and investigate clusters of infectious disease patients, and any unexplained illnesses in health workers established. Qualified IPC professionals are in place at all tertiary hospitals at a minimum.	Infection control measures and the effectiveness is regularly evaluated and published. A national programme[16] for protecting health care workers is implemented. A monitoring system for antimicrobial resistance has been implemented and data on magnitude and trends are available.
Disinfection, decontamination and vector control[17]	A programme for disinfection, contamination and vector[18] control is established.	An up-to-date inventory of essential materials for disinfection and vector control[19] exists.	Essential materials for disinfection[20], decontamination and vector control are available at relevant sites. Safe disposal policy and procedures for medical and non medical waste established.	Decontamination capabilities[21] are established for chemical decontamination to address main chemical risks. Decontamination capabilities are established for radiological and nuclear hazards as relevant to the country's situation.	Assistance is offered to other States Parties for developing their disinfection and decontamination capacities.

1. This includes emergencies relevant to the IHR.

2. RRT is a group of :multisectoral/multidisciplinary persons that are ready to respond on a 24 hour basis (Annex 1A, Article 6h) to a public health event; trained in outbreak investigation and control, infection control and decontamination, social mobilization and communication, specimen collection and transportation, chemical event investigation and management and if applicable, radiation event investigation and management. The composition of the team is determined by the country concerned.

3. The amount of time considered here is the time between detection of the event and initiation of a recommended response.

4. Note: some hazard responses may require more timely response than 48 hours.

5. The amount of time considered here is the time between detection of the event and initiation of a recommended response.

6. For the purposes of Annex 1, the criteria for urgent events include serious public health impact and/or unusual or unexpected nature with high potential for spread.

7. Hazards such as zoonotic diseases, food safety events , chemical events, radiological and nuclear etc.

8. Priority diseases should include IHR specified diseases in Annex 2 (IHR 2005): smallpox, poliomyelitis due to wild-type poliovirus, human influenza caused by a new subtype, severe acute respiratory syndrome (SARS) etc.

9. Nuclear, chemical, zoonotic and food safety.

10. As specified in Article 57, 2(d) IHR (2005).

11. Annex 1B, 1(b) IHR (2005).

12. This refers to an institutionalized national IPC authority with a dedicated staff, budget, objectives, scope and functions. Healthcare facilities are needed to elaborate and implement local policies in accordance with national IPC programme and standards. Comprehensive information on infection control can be found in the WHO document "Core components for infection prevention and control programmes" at http://www.who.int/csr/resources/publications/WHO_HSE_EPR_2009_1/en/.

13. May be the same responsible entity (unit/person) responsible for health-care associated infections

14. Isolation precautions include: a designated area (e.g., a single room or ward), an adequate number of staff and appropriate equipment for management of the risk of infection.

15. High risk groups include intensive care unit patients, neonates, immunosuppressed patients, emergency department patients with unusual infections, etc.

16. This includes preventive measures and treatment offered to health care workers, e.g., influenza or hepatitis vaccine programmes for health care workers and personal protective equipment.

17. This capacity is understood as actions taken during response at sites.

18. As defined in the IHR (2005), vector means an insect or other animal which normally transports an infectious agent that constitutes a public health risk.

19. Note that for small countries this might not be necessary.

20. Personal protective equipment, disinfectants etc.

21. Decontamination capability includes inspecting, inventorying, storing and purchasing personal protective equipment when needed, upkeep and maintenance of the decontamination equipment, maintenance of training records, ongoing training, recruitment of new team members, maintenance of exposure records etc.

Core capacity 5: Preparedness[1]

Component of core capacity	Country level Indicator	Development of IHR core capacities by capability level			
		<1 Foundational	1 Inputs and processes	2 Outputs and outcomes	3 Additional achievements
Public health emergency preparedness and response	Multi-hazard National Public Health Emergency Preparedness and Response Plan is developed.	Assessment[2] of the ability of existing national structures and resources to meet IHR core capacity requirements (Annex 1A Article 2). A national plan to meet IHR core capacity requirements has been developed (Annex 1A Article 2).	National public health emergency response plans[3] developed. National public health emergency response plans incorporate IHR related hazards and PoE.	The national public health emergency response plan(s) is tested in actual emergency or simulation exercises and updated as needed.	Country experiences and findings on emergency response and in mobilizing surge capacity, are documented and shared with the global community.
			Procedures, plans or strategy in place to reallocate or mobilise resources from national and sub-national levels to support action at community/primary response level.	Surge capacity[4] to respond to public health emergencies of national and international concern is available and tested through an exercise or actual event (e.g. as part of the response plans).	
Risk and resource management for IHR preparedness	Priority public health risks and resources are mapped.	A directory of experts in health and other sectors to support a response to the IHR related hazards is available.	A national risk assessment[5] has been conducted to identify potential 'urgent public health events' and the most likely sources of these events. National plan[7] for management and distribution[8] of stockpiles in place.	National resources have been mapped[6] for IHR relevant hazards and priority risks. Stockpiles (critical stock levels) for responding to priority biological, chemical and radiological events and other emergencies are accessible.	The national risk profile and resources are assessed regularly to accommodate emerging threats. Contributes to international stockpiles.

1. Preparedness for development of public health emergency systems including implementation of the IHR.
2. i.e. mapping of local infrastructure, PoE, health facilities, major equipment and supplies, staff, funding sources, experts, equipment, laboratories, institutions, NGOs to assist with community-level work, and transport.
3. As appropriate for country context (federal vs. central government).
4. Surge capacity: the ability of the health system to expand beyond normal operations to meet a sudden increased demand. Surge capacity encompasses potential patient beds; available space in which patients may be triaged, managed, vaccinated, decontaminated, or simply located; available personnel of all types; necessary medications, supplies and equipment; and even the legal capacity to deliver health care under situations which exceed authorized capacity (Health Care at the Crossroads: Strategies for Creating and Sustaining Community-wide Emergency Preparedness Strategies. JCAHO 2003).
5. The risks are not only due to the source, but also the vulnerabilities and the absence or presence of capacities. This risk assessment should include the mapping of various hazards, disease outbreaks patterns, local disease transmission patterns, contaminated food or water sources, etc.as well as possible hazard sites or facilities which could be the source of a chemical, radiological, nuclear or biological public health emergency of international concern, vulnerable populations.
6. i.e. mapping of local infrastructure, PoE, health facilities, major equipment and supplies, staff, funding sources, experts, equipment, laboratories, institutions, NGOs to assist with community-level work, and transport.
7. Could includes management of international resources if needed.
8. This includes the rotation of stocks in respect to their expiry dates, proper storage conditions for various drugs, logistic requirements and distribution to pharmacies and hospitals around the country.

Core capacity 6: Risk communication

Component of core capacity	Country level Indicator	Development of IHR core capacities by capability level			
		<1 Foundational	1 Inputs and processes	2 Outputs and outcomes	3 Additional achievements
Policy and procedures for public communications	Mechanisms for effective risk communication during a public health emergency are established.	Risk communication partners and stakeholder[1] are identified.	A unit responsible (can be part of an existing structure) for coordination of public communications[2] during a public health event is identified. A risk communication plan[3] is developed. Policies, SOPs or guidelines are developed on the clearance[4] and release of information during a public health emergency.	Risk communication plan implemented or tested through actual emergency or simulation exercise and updated in the last 12 months. Evaluation of the public health communication after emergencies, including for timeliness, transparency[5] and appropriateness of communications, is carried out.	Results of evaluations of risk communications efforts during a public health emergency have been shared with the global community.
			A regularly updated information source is accessible to media and the public for information dissemination[6]. Accessible and relevant information, education and communications materials[7] tailored to the needs of the population are available.	In the last three national or international PH emergencies, populations and partners were informed of a real or potential risk within 24 hours following confirmation.	

1. Stakeholders are any groups, organizations or systems that can help affect or be affected by communications during a public health event.
2. Including the designated spokesperson(s) and alternates identified.
3. The risk communication plan should include the roles and responsibilities of the stakeholders as well as the social mobilization of communities
4. Procedures in place for clearance by scientific, technical and communications staff before information is released during public health events.
5. Transparency implies openness, communication and accountability, i.e., all information about public health risk is open and freely available.
6. This includes, as appropriate, community meetings, press briefings, national radio broadcasts, web sites/webpages (at national level) etc.
7. The views and perceptions of individuals, partners and communities affected by public health emergencies should be systematically taken into account. This includes vulnerable, minority, disadvantaged or other at-risk populations.

Core capacity 7: Human resources

Component of core capacity	Country level Indicator	Development of IHR core capacities by capability level			
		<1 Foundational	1 Inputs and processes	2 Outputs and outcomes	3 Additional achievements
Human resource capacity	Human resources are available to implement IHR core capacity requirements.	A responsible unit has been identified for the development human resource capacity including for the IHR.	A needs assessment conducted to identify gaps in human resources and training[1] to meet IHR requirements. A workforce development or training plan that includes human resource requirements for IHR exists.	Targets are on track for meeting workforce numbers and skills consistent with milestones set in the training plan. A strategy or plan is developed for the country to access field epidemiology training (one year or more) in-country, regionally or internationally.	A specific programme and budget is allocated to train workforce for IHR-relevant hazards.

1.   Assessment of training needs includes circulating a questionnaire, a consensus of experts or systematic review.

Core capacity 8: Laboratory[1,2]

Component of core capacity	Country level Indicator	Development of IHR core capacities by capability level			
		<1 Foundational	1 Inputs and processes	2 Outputs and outcomes	3 Additional achievements
Policy and coordination of laboratory services	Coordinating mechanism for laboratory services is established.	A laboratory focal point identified for coordinating laboratory services.	A national Plan of Action that includes essential functions of laboratories, minimum standards and licensing/registration, is available.	Up to date policies disseminated to diagnostic laboratories, specifying minimal requirements[3] in authorized laboratory services[4].	Regulatory authorities are designated to validate or regulate the in-vitro diagnostic devices used within the country.
Laboratory diagnostic and confirmation capacity	Laboratory services are available to test for priority health hreats.	Policy to ensure quality of laboratory diagnostic capacity (e.g., licensing, accreditation etc.)	National laboratory quality standards/guidelines are available. Network of national and/or international laboratories established to meet diagnostic and confirmatory laboratory requirements and support outbreak investigations for events specified in Annex 2 of IHR (2005). Up to date and accessible Inventory of public and private laboratories, and their relevant diagnostic capacities, is available.	National or international external quality assessment schemes for diagnostic laboratories for major public health disciplines[5] are implemented. Greater than 10 non-AFP hazardous specimens per year referred to <u>national</u> or international reference laboratories for examination.	All diagnostic laboratories are certified or accredited according to international standards[6], or to national standards adapted from international standards.
	Influenza surveillance is established[7].	Access to influenza testing, nationally or internationally.	Procedures are in place for rapid virological assessment of clusters of cases with severe acute respiratory illness of unknown cause, or individual cases when epidemiologic risk is high.	Participates in Global Influenza Surveillance Network, with regular submission of viral isolates for analysis.	National data/maps of circulating strains of influenza are available and shared with the global community.

Continuation: Core capacity 8: Laboratory

Component of core capacity	Country level Indicator	Development of IHR core capacities by capability level			
		<1 Foundational	1 Inputs and processes	2 Outputs and outcomes	3 Additional achievements
Specimen collection and transport	System for collection, packaging and transport of clinical specimens is established.	Sample collection and transportation kits are available.	National SOPs compatible with international guidelines are available for the collection and transport, of clinical specimens.	Viable clinical specimens from investigation of urgent public health events[8] are delivered to appropriate laboratory within the appropriate timeframe of collection for testing or transport to international reference laboratory.	At least one hazardous specimen per year is shipped internationally to a collaborating laboratory as part of an investigation or exercise.
			Sample collection and transport kits are pre-positioned at appropriate levels for immediate mobilization during a public health event. Staff (including RRT members) are trained in specimen collection and transport.	Staff at national or relevant level are trained for the safe shipment of infectious substances according to international standards (ICAO/IATA[9]). Processes used when investigating an urgent public health event for shipment of infectious substances consistently meet IATA/ICAO standards.	
Laboratory biosafety and Laboratory Biosecurity	Laboratory biosafety and Laboratory Biosecurity (Biorisk management[10]) practices are in place.	Biosafety guidelines are accessible to laboratories.	An institution or person[11] responsible for inspection (includes certification of biosafety equipment) of laboratories for compliance with biosafety requirements is identified. Regulations, policies[12] or strategies for laboratory biosafety are available. A responsible entity[13] is designated for laboratory biosafety and laboratory biosecurity (biorisk management). Relevant staff are trained on laboratory biosafety and laboratory biosecurity guidelines.	Biosafety and laboratory biosecurity procedures are implemented and regularly monitored. Biorisk[14] assessment is conducted in laboratories to guide and update biosafety regulations, procedures and practices, including for decontamination and management of infectious waste.	Diagnostic laboratories[15] are designated and authorized or certified as BSL 2 or above for relevant levels of the health care system.

Continuation: Core capacity 8: Laboratory

Component of core capacity	Country level Indicator	Development of IHR core capacities by capability level			
		<1 Foundational	1 Inputs and processes	2 Outputs and outcomes	3 Additional achievements
Laboratory based surveillance	Laboratory data management and reporting is established.	Priority pathogens for laboratory based surveillance are identified.	Standard reporting procedures between laboratory services and the surveillance department, including timeliness requirements by class of pathogen, are established.	SOPs for data management, data security and data quality exist at diagnostic laboratories. Analysis of laboratory data with reports disseminated to relevant stakeholders[16] is done.	Country experience and findings regarding laboratory based surveillance are shared with the global community.

1. IHR (2005) Annex 1, paragraph 6(b): "Public health response to provide support through specialized staff, laboratory analysis of samples (domestically or through collaborating centres) and logistical assistance (e.g. equipment, supplies and transport").

2. 'Laboratory(ies)' in this Core Capacity refer to national laboratories or external laboratories that the country has access to, through agreements.

3. Based on countries needs and priorities related to IHR.

4. Services include authorized tests, procedures and resources (human resources and budget).

5. E.g., virology, haematology, immunology, microbiology, etc.

6. International standards: ISO 9001, ISO 17025, ISO 15189, WHO standards for polio, measles, etc.

7. Influenza surveillance here is used as a proxy for diseases in Annex 2 of the IHR.

8. i.e, greater than 80%.

9. International Civil Aviation Organization (ICAO); International Air Transport Association (IATA).

10. Management of biorisks in, or associated with the laboratory.

11. With allocated resources, SOPs etc.

12. This includes local policies or regulations for the protection of laboratory workers (e.g., immunization, emergency antiviral therapy, specific measures for pregnant women, protective personal equipment use, etc.) and guidelines for the management and disposal of hazardous substances.

13. This could be an expert group, committee or institution.

14. Biorisk is combination of the probability of occurrence of harm and the severity of that harm where the source of harm is a biological agent or toxin e.g. risks posed by the handling, manipulation, storage, and disposal of infectious substances.

15. Laboratories here could be public health, clinical or hospital based.

16. Stakeholders include the ministry of health's epidemiological department, national reference laboratories and private laboratories, as applicable.

Points of Entry

Component of PoE	Country level Indicator	Development of IHR core capacities requirements at PoE by capability level			
		<1 Foundational	1 Inputs and processes	2 Outputs and outcomes	3 Additional achievements
General obligations required at PoE[1]	General obligations at PoE are fulfilled.	A review meeting (or other method as appropriate) conducted on designating PoE has been held. A meeting (or other method as appropriate) conducted to list Ports authorized to offer certificates relating to ship sanitation (if applicable).	Ports/airports are designated for development of capacities specified in Annex 1 (as specified in Article 20, No.1). Competent authorities[2] are identified at each designated point of entry as specified in Article 19B of the IHR (2005). A list of Ports authorized to offer certificates relating to ship sanitation has been sent to WHO (as specified in Article 20, No.3) if applicable.	Updated IHR (2005) health documents[3] are implemented at designated PoE. Designated PoE are assessed[4]. Relevant legislation, regulations, administrative acts, protocols, procedures and other government instruments are updated as needed.	Joint designation of PoE for core capacity development between countries Joint designation of PoE for core capacity development.
Coordination and communication[5]	Coordination[6] in the prevention, detection, and response to public health emergencies at POE is established.	A list of sectors and agencies for coordination at PoE is available.	Procedures[7] for coordination and communication between the IHR NFP and the PoE competent authority, and with relevant sectors and levels, are established.	Procedures for coordination and communication between the IHR NFP and the PoE competent authority, and with relevant sectors and levels are tested and corrective action plans are in place as needed. Procedures for communication[8] internationally between the PoE competent authority and other countries' PoE competent authorities are tested and updated as needed.	Effectiveness of coordination between relevant stakeholders for PoE evaluated and experiences is shared with the global community. Bilateral or multilateral agreements or arrangements concerning prevention or control of international transmission of disease at PoE are developed.

Continuation: Points of Entry

Component of PoE	Country level Indicator	Development of IHR core capacities requirements at PoE by capability level			
		<1 Foundational	1 Inputs and processes	2 Outputs and outcomes	3 Additional achievements
Core Capacities required at all times	Effective surveillance[9] and other routine capacities is established at PoE.	Priority conditions for surveillance at designated PoE are identified.	Surveillance information at designated PoE is shared with the surveillance department/unit. Mechanisms for the exchange of information between designated PoE and medical facilities are in place. Designated PoE have access to appropriate medical services including diagnostic facilities for the prompt assessment and care of ill travellers and with adequate staff, equipment and premises (Annex 1B, 1a).	Inspection program to ensure safe environment at PoE facilities[10] functioning. A functioning programme for the control of vectors and reservoirs in and near PoE exists (Annex 1b, Art. 1e). Trained personnel for the inspection of conveyances is available at designated PoE (Annex 1b, Art. 1c).	A review of surveillance of health threats at PoE has been carried out in the last 12 months and the results published.
Core Capacities for Responding to public health emergiencies at PoE	Effective response at PoE is established	SOPs for response at PoE are available.	A public health emergency contingency response plan at each designated PoE has been developed and disseminated to key stakeholders. Designated PoEs have appropriate space, separate from other travellers, to interview suspect or affected persons (Annex 1B, Art. 2c). Designated PoEs referral system and safe transport of ill travellers to appropriately equipped medical facilities (Annex 1b, art 1b and 2g).	A public health emergency contingency plan at designated PoEs has been integrated with other response plans, and is tested and updated as needed. Designated PoEs can provide assessment of and quarantine of suspect travellers and care for affected travellers or animals[11] (Annex 1B, Art. 2b and 2d). Designated PoEs can apply entry or exit controls for arriving and departing travellers and other recommended public health measures[12] (Art. 1B, Art. 2e, 2f). Designated PoE can provide access to specially designated equipment, and to trained personnel with appropriate personal protection, for the transfer of travellers who may carry infection or contamination.	Regional exercises to test public health emergency contingency response plan.

1. Indicate the number of designated Airports, Ports and Ground crossings in the comment box.

2. The competent authority is the authority responsible for the implementation and application of health measures under the International Health Regulations (2005). The National IHR Focal Point is the national centre designated by a State Party to the International Health Regulations (2005) that is accessible at all times for communication with the World Health Organization contact points. (Articles 1 and 22).

3. International certificate of vaccination or prophylaxis, the Ship Sanitation Control Certificate, the Maritime declaration of Health, and the health part of the Aircraft General Declaration.

4. e.g. with PoE core capacities assessment tool and excel spread sheet http://www.who.int/ihr/ports_airports/PoE/en/index. html.

5. Note that this is cross-referenced with core capacity 2, and these attributes should also be considered under core capacity 2.

6. Effective coordination and communication structure between competent authorities at points of entry, and the National IHR Focal Point and health authorities at the national, intermediate and local levels.

7. Procedures include SOPs or protocols, for example.

8. Article 27 2(a) IHR (2005): "the competent authority shall, at the time of departure, inform the competent authority for the next known point of entry of the type of information referred to under subparagraph (b); and (b) in the case of a ship, the evidence found and the control measures required shall be noted in the Ship Sanitation Control Certificate."

9. This could be part of the national surveillance system, or as assigned by the country.

10. Including potable water supplies, eating establishments, flight catering facilities, public washrooms, appropriate solid and liquid waste disposal services and other potential risk are,as appropriate.

11. By establishing arrangements with local medical and veterinary facilities for their isolation, treatment and other support services that may be required.

12. Include entry or exit controls for arriving and departing travellers, and measures to disinsect, derat, disinfect, decontaminate or otherwise treat baggage, cargo, containers, conveyances, goods or postal parcels including, when appropriate, at locations specifically designated and equipped for this purpose.

IHR Potential hazards 1: Zoonotic events

Component of hazard	Indicators	Development of core capacities for zoonotic event detection and response by capability level			
		<1 Foundational	1 Inputs and processes	2 Outputs and outcomes	3 Additional achievements
Capacity to detect and respond to zoonotic events of national or international concern	Mechanisms for detecting and responding to zoonoses and potential zoonoses are established.	Coordination exists within the responsible government authority(ies) on the detection of, and response[1] to zoonotic events.	National policy, strategy or plan for the surveillance and response to zoonotic events are in place. Focal point(s) responsible for animal health (including wildlife) designated for coordination with the ministry of health and/or IHR NFP[2].	Functional mechanisms[3] for intersectoral collaborations that include animal and human health surveillance units and laboratories are established.	Country experiences and findings related to zoonotic risks and events of potential national and international concern have been shared with the global community over the last twelve months.
		List of priority zoonotic diseases with case definitions available.	Systematic and timely collection and collation of zoonotic disease data is done. Access to laboratory capacity, nationally or internationally (through established procedures) to confirm priority zoonotic events is available.	Zoonotic disease surveillance that includes a community component is implemented. Timely[4] and systematic information exchange between animal surveillance units, human health surveillance units and other relevant sectors regarding potential zoonotic risks and urgent zoonotic events.	
		A regularly updated roster (list) of experts that can respond to zoonotic events is available.	A mechanism for response to outbreaks of zoonotic diseases by human and animal health sectors is established.	Timely[5] (as defined by national standards) response to more than 80% of zoonotic events of potential national and international concern.	

1. Note that coordination for surveillance and coordination for response may be the responsibility of different authorities.
2. Information sharing, meetings, SOPs developed for collaborative response etc.
3. A joint working group or other mechanism between the animal health surveillance system and the human health surveillance system and other relevant sectors.
4. Timeliness is judged and determined by each country.
5. The time referred to here is the time between detection and response.

IHR Potential hazards 2: Food Safety

Component of hazard	Indicators	Development of core capacities for zoonotic event detection and response by capability level			
		<1 Foundational	1 Inputs and processes	2 Outputs and outcomes	3 Additional achievements
Capacity to detect and respond to food safety events that may constitute a public health emergency of national or international concern	Mechanisms are established for detecting and responding to foodborne disease and food contamination.	National or international food safety standards are available[1].	National food laws, regulations or policy to facilitate food safety control are in place[2]. A coordination mechanism is established between the food safety authorities, e.g. the INFOSAN Emergency Contact Point (if member) and the IHR NFP.	Functional mechanisms[3] for multisectoral collaborations for food safety events is in place.	The country is an active member of the INFOSAN[4] network.
		A list of priority food safety risks is available.	Risk-based food inspection services are in place. Guidelines or manuals on the surveillance, assessment and management of priority food safety events are available. Epidemiological data related to food contamination are systematically collected and analysed.	Access to laboratory capacity (through established procedures) to confirm priority food safety events of national or international concern including molecular techniques. Timely[5] and systematic information exchange between food safety authorities, surveillance units and other relevant sectors regarding food safety events.	
		A roster of food safety experts is available for assessment and response to food safety events.	Communication mechanisms and materials are in place to deliver information, education and advice to stakeholders across the farm-to-fork continuum.	An operational plan for responding[6] to food safety events is tested in actual emergency or simulation exercises and updated as needed. Mechanisms are established to trace, recall and dispose of contaminated products[7]. Information from foodborne outbreaks and food contamination is used to strengthen food management systems, safety standards and regulations.	Published analysis of food safety events, foodborne illness trends or outbreaks. Food safety control management systems (including for imported food) are implemented.

1. This could be based on international standards.
2. The National Food Safety Control System includes: food law and regulations, food control management, inspection services, laboratory services: food monitoring and epidemiological data, information, education, communication and training.

3. A network, task force, committee or other mechanism to share information about events that may affect food safety and which is able to operate in a timely manner and effectively reduce the risk of foodborne illness.

4. The International Food Safety Authorities Network (INFOSAN) is a global network of 177 national food safety authorities, developed and managed by WHO in collaboration with the Food and Agriculture Organization of the United Nations (FAO), that disseminates important global food safety information, and improves national and international collaboration.

5. Timeliness is judged and determined by each country.

6. Examples of essential steps in a food event response system after an alert include investigation, risk assessment, risk management, risk communication, effectiveness checks and recall follow-up.

7. This would include all products that could be the source of contamination, e.g., feed, food ingredients and food products.

IHR Potential hazards 3: Chemical events

Component of hazard	Indicators	Development of core capacities for zoonotic event detection and response by capability level			
		<1 Foundational	1 Inputs and processes	2 Outputs and outcomes	3 Additional achievements
Capacity to detect and respond to chemical events of national and international public health concern	Mechanisms are established for the detection, alert and response to chemical emergencies.	Experts are identified for public health assessment and response to chemical incidents[1].	National policies or plans for chemical event surveillance, alert[2] and response exist. National authorities responsible for chemical events have a designated focal point for coordination and communication with the ministry of health and/or IHR NFP.	Functional coordination[3] mechanisms with relevant sectors exist for surveillance and timely response to chemical events.	Country experience and findings regarding chemical events and risks of national and international concern are shared with the global community.
			A list of priority chemical events/ syndromes that may constitute a potential public health event of national and international concern are identified. Surveillance is in place for chemical events, intoxication, and poisonings. Manuals and SOPs for rapid assessment, case management and control are available and disseminated.	Inventory of major hazard sites and facilities that could be a source of chemical public health emergencies[4] available. Timely and systematic information exchange between appropriate chemical units[5], surveillance units and other relevant sectors about urgent chemical events and potential chemical risks.	
			An emergency response plan that defines the roles and responsibilities of relevant agencies is in place for chemical emergencies. Laboratory capacity or access to laboratory capacity to confirm priority chemical events is established.	Adequately resourced Poison Centre(s) are in place[6]. A chemical event response plan has been tested through occurrence of real event or through simulation exercise and is updated as needed.	

1. Includes chemical risk assessors, risk managers, and clinical toxicologists
2. Elements of alert include SOPs for coverage, criteria of when and how to alert, duty rosters etc.
3. Note that this cross-references with legislation, policy and financing (core capacities 1 and 2) and these attributes for this component should be also fully addressed under those core capacities. They are under this hazard for coherence, flow, and triangulation where this is administered to the hazard expert.
4. E.g., large chemical installations, factories, hazardous waste sites, specific transportation routes, storage sites for pesticides etc.
5. E.g. chemical surveillance, environmental monitoring and chemical incident reporting.
6. E.g., clinical toxicology, 7/24 hotline, material data sheet, safety data sheet, and contact details of chemical manufactures.

IHR Potential hazards 4: Radiation emergencies

Component of hazard	Indicators	Development of core capacities for zoonotic event detection and response by capability level			
		<1 Foundational	1 Inputs and processes	2 Outputs and outcomes	3 Additional achievements
Capacity to detect and respond to radiological and nuclear emergencies that may constitute a public health event of national or international concern	Mechanisms are established for detecting and responding to radiological and nuclear emergencies.	Experts are identified for public health assessment and response to radiological and nuclear events.	National policies, strategies or plans for the detection, assessment, and response to radiation emergencies are established. National policies, strategies or plans for national and international transport of radioactive material, samples and waste management including those from hospitals and medical services are established. National authorities responsible for radiological and nuclear events has a designated focal point for coordination and communication with the ministry of health and/or IHR NFP.	Functional coordination[1] and communication mechanism[2] between relevant national competent authorities responsible for nuclear regulatory control/safety, and relevant sectors[3].	Country experiences on the detection and response to radiological risks and events are documented and shared with global community.
			Radiation monitoring exists for radia- tion emergiencies that may constitute a public health event of international concern.	Systematic information exchange between radiological competent authorities and human health surveillance units about urgent radiological events and potential risks that may constitute a public health emergency of international concern. Scenarios, technical guidelines, and SOPs for risk assessment, reporting, event confirmation and notification, investigation and management of radiation emergencies developed.	

Continuation: IHR Potential hazards 4: Radiation emergencies

Component of hazard	Indicators	Development of core capacities for zoonotic event detection and response by capability level			
		<1 Foundational	1 Inputs and processes	2 Outputs and outcomes	3 Additional achievements
			A radiation emergency response plan exists (could be part of national emergency response plan). A mechanism is in place to access[4] health facilities with capacity to manage patients of radiation emergencies. Access to laboratory capacity to detect and confirm the presence of radiation and identify its type (alpha, beta, or gamma) for potential radiation hazards.	Radiation emergency response drills carried out regularly, including the requesting of international assistance (as needed) and international notification. Collaborative mechanisms in place for access to specialized laboratories that are able to perform bioassays[5], biological dosimetry by cytogenetic analysis and ESR[6].	

1. Note that this cross-references with legislation, policy and financing (core capacities 1 and 2).and these attributes for this component should be also fully addressed under those core capacities. They are under this hazard for coherence, flow, and triangulation where this is administered to the hazard expert.

2. Information sharing, meetings, SOPs developed for collaborative response etc.

3. Coordination for risk assessments, risk communications, planning, exercising, monitoring and including coordination during urgent radiological events and potential risks that may constitute a public health emergency of international concern.

4. Have agreements, established arrangements and mechanisms to access these capacities in relevant collaborating institutions in country or in other countries.

5. To measure and monitor the amount of incorporated radioactivity in the human body by the use of whole-body counters, lung monitors, thyroid monitors, or in biological samples.

6. ESR: electron-spin resonance, measures a dose of radiation absorbed in the human body by measuring a special signal from tooth enamel, nails, hair or other material samples that may by found in items of closing, mobile phones, etc.

Adapted for this framework, the Potter model defines the building blocks for health system development. It does not advocate the development of new structures and systems; rather, it focuses on the need to strengthen existing institutional capacity (including organizational capacity, good governance Governance refers broadly to the ways in which the organization is governed in terms of the internal management systems (i.e., personnel management, financing, information management and decision-making) as well as its management of external accountability through mechanisms such as boards and steering committees., stewardship and financing) and institutional structures, which in turn enable the strengthening of facilities, systems and human resources necessary for implementing the IHR, notably with respect to detection, assessment, notification, and response.

The Potter Model[1]

Adapted for this framework, the Potter model defines the building blocks for health system development. It does not advocate the development of new structures and systems; rather, it focuses on the need to strengthen existing institutional capacity (including organizational capacity, good governance refers broadly to the ways in which the organization is governed in terms of the internal management systems (i.e., personnel management, financing, information management and decision-making) as well as its management of external accountability through mechanisms such as boards and steering committees., stewardship and financing) and institutional structures, which in turn enable the strengthening of facilities, systems and human resources necessary for implementing the IHR, notably with respect to detection, assessment, notification, and response.

The key elements of this model are as follows:

- Performance capacity: Tools, financial resources, equipment, consumables, materials (e.g., personal protective equipment, decontamination materials) needs to be available for workers to perform effectively.

- Individual capacity: Staff must be sufficiently knowledgeable, skilled and confident in order to perform their jobs effectively and with the appropriate attitudes and motivation.

- Systems capacity: Systems are in place to support surveillance and response activities and to develop and test preparedness plans.

- Structures, processes and management capacity: legislation, policies and procedures are in place and function in a timely and effective manner to guide health care delivery; inter-sectoral coordination; partnerships and networks; and managerial capacity including the flow of information, money and managerial decisions.

---

1   Potter C, Brough R. Systemic capacity building: a hierarchy of needs. Health Policy Plan 2004, 19(5): 336–345.

Figure 5: Modified Potter's hierarchy of capacity development and IHR Application of the Potter concept to the development of IHR core capacities
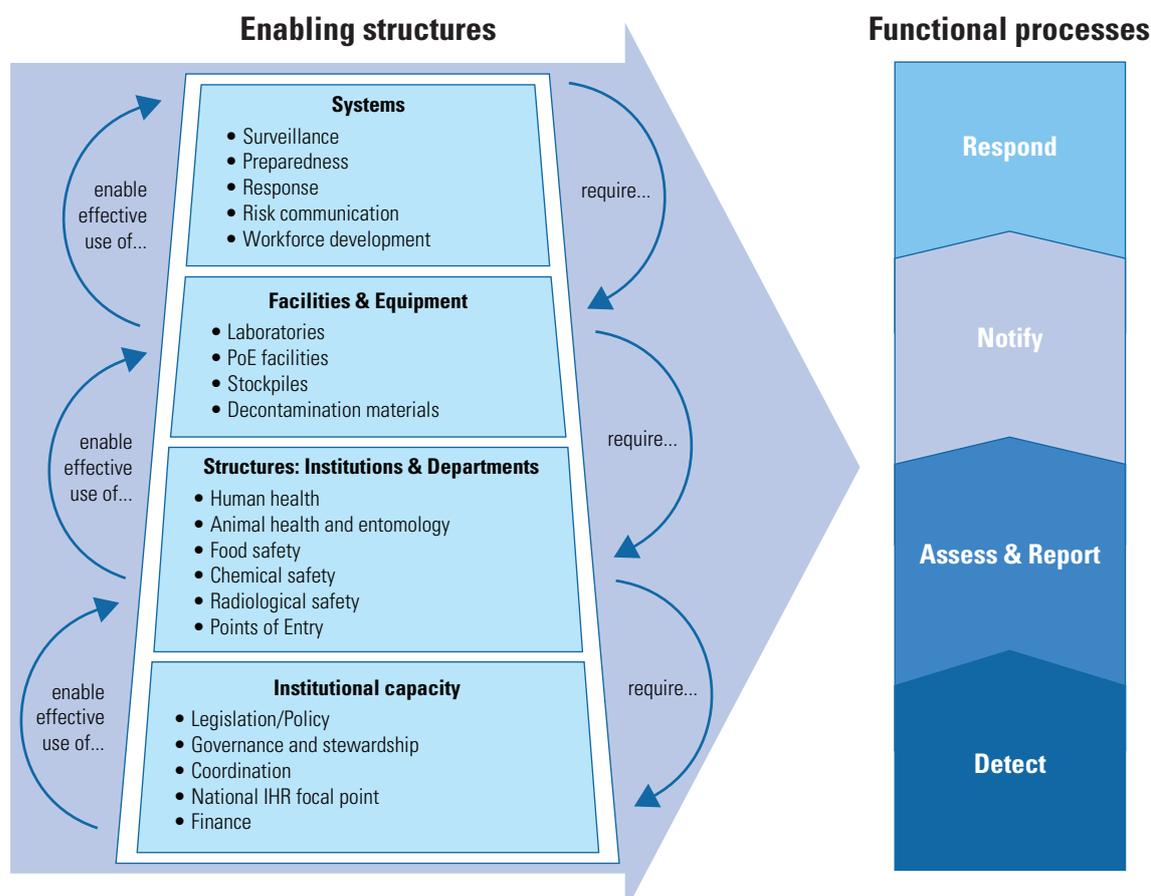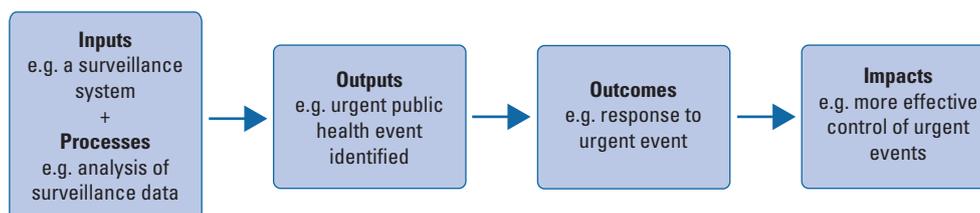

The Ripple model[1]

The Ripple model regards capacity building as a process that ripples out, resulting in progressive changes over time in individuals, organizations, systems and eventually the status of populations. The assumption is that inputs and processes do in fact ripple out to bring about positive changes in the organization and the services it provides (outputs and outcomes). While the development stages are seen as progressing sequentially from input to outcomes, the capacity development initiatives for the IHR in reality do not start in a vacuum. Many capacity development initiatives, particularly in the early stages, have little to show except that inputs are present and processes are being implemented. This modified model takes into account the fact that varying levels of capacity already exist across States Parties and that resources, structures and systems need to be acknowledged and strengthened through a dynamic process that ensures national leadership and ownership within the country. Where outputs and outcomes are present, the model encourages the systematic review of inputs and processes in place. An underlying assumption is that core capacity building processes transform inputs into outputs which result in specific outcomes and in the longer term have the required impact.

1   James R. Practical Guidelines for the Monitoring and Evaluation of Capacity Building: Experiences from Africa. The International NGO Training and Research Centre. Occasional Paper Series Number 36, 2001. http://www.intrac.org/publications.php?id=53
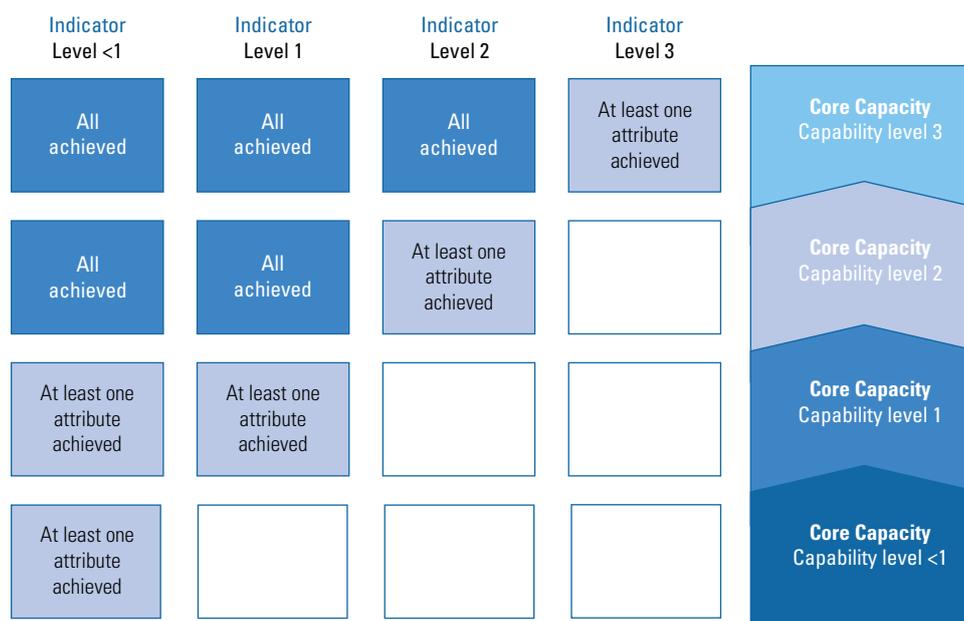
Figure 6: Application of the Ripple concept to the development of IHR core capacities

| **Inputs** e.g. a surveillance system + **Processes** e.g. analysis of surveillance data | → | **Outputs** e.g. urgent public health event identified | → | **Outcomes** e.g. response to urgent event | → | **Impacts** e.g. more effective control of urgent events |

The Capability Maturation Index model, also known as Capability Maturation Monitoring[1]

In Capacity Maturation Index models[2], progress is marked by the achievement of meaningful levels in overall capability from a lower to a more advanced level. This involves describing a set of distinct competencies or other functional attributes associated with typical stages of a country's progress. A simplified Capacity Maturation Model involving four capability levels is used in this document, in which each IHR core capacity indicator is characterized by a list of required attributes. These attributes are intended to reflect clear, practical steps towards making progress to the next level, and to serve as a basis for strategic planning by the county.

Figure 7: Illustration of the concept of Maturation Levels

Indicator Level <1	Indicator Level 1	Indicator Level 2	Indicator Level 3	
All achieved	All achieved	All achieved	At least one attribute achieved	**Core Capacity** Capability level 3
All achieved	All achieved	At least one attribute achieved		**Core Capacity** Capability level 2
At least one attribute achieved	At least one attribute achieved			**Core Capacity** Capability level 1
At least one attribute achieved				**Core Capacity** Capability level <1

---

1 The Capability Maturity Model® Integration (CMMISM),Version 1.1. http://www.sei.cmu.edu/reports/02tr012.pdf.

2 According to the CMM model, level 1 is an initial state before intervention, level 2 is a managed processes of improvement (reactive), level 3 are is characterized by defined processes (proactive), level 4 is quantitative (measured/controlled), and level 5 is optimizing (process improvement).

Appendix 13.3: Example of data collection form

Core Capacity	2	Coordination[11] and NFP Communications
Component	2.1	IHR coordination[12], communication and advocacy[13]
Indicator	2.1.1	***Mechanism established for the coordination of relevant sectors[14] in the implementation of IHR**

NOTE: Before you begin, please review the general instructions for completing the questionnaire. Mark one appropriate value (Yes, No, or Not Known) for each of the questions below. A 'Not Known' value will be statistically equivalent to a 'No' value. Technical notes appear at the end of this questionnaire.

2.1.1.1 Is there coordination within relevant ministries on events that may constitute a public health event of national or international concern?

✓ Yes	☐ No	☐ Not Known

2.1.1.2 Are Standard Operating Procedures (SOP)[15] available for coordination between IHR NFP and stakeholders of relevant sectors? Q8

☐ Yes	✓ No	☐ Not Known

2.1.1.3 Is a multisectoral, multidisciplinary committee, body or task force[16] in place in order to address IHR requirements on surveillance and response for public health emergencies of national and international concern[17]?

☐ Yes	✓ No	☐ Not Known

Appendix 13.4:   Example of country overview of IHR core capacity development status

Country name:

			Capability level score (highest level with all attributes present)	Attribute score (proportion of attributes present) in levels 1 and 2	Number of level <1 attributes achieved	Number of level 3 attributes achieved
Core capacity1						
	Component 1					
		Indicator 1				
		Indicator 2				
		Indicator 3				
	Component 2					
		Indicator 1				
		Indicator 2				
Core capacity2						
	Component 1					
		Indicator 1				
		Indicator 2				
	Component 2					
		Indicator 1				
		Indicator 2				
	Component 3					
		Indicator 1				

Priority list of level <1 attributes
1.
2.
3.

Level 3 attributes	Website or citation
1.	
2.	
3.	

Appendix 13.5:   Example of IHR Core Capacity Monitoring Workshop outline

Purpose of workshop:

- Update on IHR implementation, including the development of core capacities.

- Introduce the paper-based and internet-based tool monitoring tool and guidance on completing these.

- Complete the monitoring tool.

- Identify strengths, gaps, opportunities and threats.

- Make recommendations on addressing gaps identified in strengthening core capacities.

Target Audience:

The workshop target audience includes IHR NFP, persons responsible for implementing the IHR, persons responsible for developing core capacities and hazards from various levels of the system, major stakeholders in the implementation of the IHR, persons from other sectors within the country (identified by the IHR NFP), and WHO representatives, if requested.

Expected outputs and outcomes:

At the end of the workshop, participants will have completed the paper-based or internet-based monitoring checklist and identified strengths, gaps, opportunities and threats in developing IHR core capacities. Recommendations can then be made to further strengthen weaknesses or fill gaps that have been identified.

Pre-workshop activities:

- Obtain IHR NFP access to the internet-based tool.

- Identify workshop participants.

- Send invitations to participants, including objectives and expected outputs, outcomes and benefits of their participation.

- Send hard and/or electronic copies of the tool to the NFP for distribution to and review by participants.

- Complete a first draft through an internal process with the participation of respective units, e.g., surveillance, response, PoE, each hazard, laboratory, etc., if deemed appropriate.

- Consider the need to invite WHO to participate in or facilitate the workshop, and/ or other international partners.

Method of work:

- plenary sessions, for presentations, discussions and completing the tool;
- group work.

Working documents studied/used during the workshop:

WHO documents

- the International Health Regulations (2005), WHO , Geneva, 2005;
- the checklist for monitoring core capacities for surveillance and response in State Parties in accordance with Annex 1A;

States Parties' documents

- all relevant documents needed to complete the assessment (reports, surveys, decrees, laws, country assessments, etc.);
- documentation of capacity strengthening activities.

DAY 1

Time	Content/Activity
	Introduction to workshop Objectives/outcomes and role of facilitators
	Overview of the IHR
	Overview of core capacities
	Overview of monitoring and tools
	Break
	Review of progress, of IHR implementation
	Presentations on hazards
	Presentations on PoE
	Lunch
	Review of relevant country documents and observations regarding, e.g., legislation, policy, coordination and human resources (e.g., manuals, case definitions, reports of surveys carried out or analysis of questionnaires, etc.)
	Close of day 1

DAY 2

Time	Content/Activity
	Separation into Working groups (based on Core Capacity)
	Group work (filling out the paper based tool)
	Break
	Group Work (filling out the tool)
	Lunch
	Group Work (filling out the tool)
	Completion of tool by all groups
	Feedback from all groups
	Close of Day2

DAY 3

Time	Content/Activity
	Summary of day 2
	Data entry into the internet-based tool and discussions
	Group work; strengths, weaknesses, opportunities and threats (SWOT) analysis
	Break
	Group presentation
	Addressing gaps and strengthening IHR core capacities
	Recommendations and next steps
	Closing remarks

Core capacities	Strengths	Weaknesses	Opportunities	Threats	Suggestions and recommendations
National legislation and policy					
Coordination					
Surveillance					
Response					
Preparedness					
Risk communication					
Laboratory					
Human resource capacity					

Summary of findings by hazard

Hazards / Core capacities	Biological hazards			Chemical	Radiation
	Infectious	Zoonotic	Food safety[*]		
1: Legislation and policy					
2: Coordination					
3: Surveillance					
4: Response					
5: Preparedness					
6: Risk communication					
7: Human resources					
8: Laboratory					
PoE					

---

1   Note that food safety hazards could also be of a chemical and/or other nature.

> ### Appendix 13.7: Comprehensive list of Indicators (28 indicators)
> WHA indicators (20 indicators) are shown in bold, blue typeface.

Core capacity 1: National legislation, policy & financing

- **Legislation, laws, regulations, administrative requirements, policies or other government instruments in place are sufficient for implementation of IHR.**

- Funding is available and accessible for implementing IHR NFP functions and IHR core capacity strengthening.

Core capacity 2: Coordination[1] and NFP communications

- **A mechanism is established for the coordination of relevant sectors[2] in the implementation of IHR.**

- **IHR NFP functions and operations are in place as defined by the IHR (2005).**

Core capacity 3: Surveillance

- **Indicator based, surveillance includes an early warning[3] function for the early detection of a public health event.**

- **Event based surveillance is established.**

Core capacity 4: Response

- **Public health emergency response mechanisms are established.**

- Case management procedures are implemented for IHR relevant hazards.

- **Infection prevention and control (IPC) is established at national and hospital levels.**

- A programme for disinfection, decontamination and vector[4] control is established.

Core capacity 5: Preparedness

- **A Multi-hazard National Public Health Emergency Preparedness and Response Plan is developed.**

- **Priority public health risks and resources are mapped.**

---

1 A coordination mechanism/body is available and functional, with terms of reference, membership from all relevant sectors, established communications channels, access to decision-makers and contacts, joint activities, meeting reports, plans, and evaluation.

2 Relevant sectors and disciplines include, for example, all levels of the health care system (local community, primary public health response, intermediate and national/central levels) NGOs, and ministries of agriculture (zoonosis, veterinary laboratory), transport (transport policy, civil aviation, ports and maritime transport), trade and/or industry (food safety and quality control), foreign trade (consumer protection, control of compulsory standard enforcement), communication, defence (information about migration flow), treasury or finance (customs) of the environment, the interior, home office, health and tourism.

3 The early warning component detects departures from normal.

4 As defined in the IHR (2005), vector means an insect or other animal which normally transports an infectious agent that constitutes a public health risk.

Core capacity 6: Risk communication

- **Mechanisms for effective risk communication during a public health emergency are established.**

Core capacity 7: Human resource capacity

- **Human resources available to implement IHR core capacity requirements.**

Core capacity 8: Laboratory

- Coordinating mechanism for laboratory services is established.
- **Laboratory services are available to test for priority health threats.**
- Influenza surveillance is established.
- System for collection, packaging and transport of clinical specimens is established.
- **Laboratory biosafety and laboratory biosecurity (Biorisk management[1]) practices are in place.**
- Laboratory data management and reporting is established.

Points of Entry

- **General obligations at PoE are fulfilled.**
- Coordination in the prevention, detection and response to public health emergencies at PoE is established.
- **Effective surveillance and other routine capacities is established[2] at PoE.**
- **Effective response at PoE is established.**

IHR Potential hazard 1: zoonotic events

- **Mechanisms for detecting and responding to zoonoses and potential zoonoses are established.**

IHR Potential hazard 2: food safety

- **Mechanisms are established for detecting and responding to foodborne disease and food contamination.**

IHR Potential hazard 3: chemical events

- **Mechanisms are established for the detection, alert and response to chemical emergencies.**

IHR Potential hazard 4: radiation emergenciescies

- **Mechanisms are established for detecting and responding to radiological and nuclear emergencies.**

---

1 Management of laboratoy biorisk.

2 This is part of the national surveillance system, or as assigned by the country.

Appendix 13.8:   Criteria for the selection of indicators to be reported to the WHA (mandatory)

Background

For reporting to the WHA, a limited number of indicators have been selected from the 30 indicators developed for monitoring IHR core capacity development. The biggest challenge in this process has been that of limiting the number of indicators so that they still reflect well on the core capacities to inform strategic decision-making. Since most of the WHA participants are health ministers, it is likely that what they will be most interested in is the progress in implementation, and in particular, where the Assembly may help make a difference. This could include drafting resolutions that address higher level strategies rather than focusing on more technical details such as improving efficiencies in the surveillance system to do with sensitivity, timeliness, representativeness etc.

Selection Criteria

The following key criteria have been applied to prioritize the indicators to be submitted to the WHA:

■ The indicator is explicitly identified in any of the Articles or Annex of the IHR (2005).

■ For indicators that were not explicitly identified in the IHR, the judgment of the expert working group on its importance, necessity and desirability was accepted.

■ The likelihood of the WHA's interest in the progress in implementation of the indicator, and in particular, where they can help make a difference.