Country support for strengthening capacities as required under the International Health Regulations

WHO Lyon Office · Activity Report

2014
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Country support for strengthening capacities as required under the International Health Regulations

WHO Lyon Office · Activity Report

2014
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<tr>
<th>ACRONYMS</th>
<th>DESCRIPTION</th>
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<tbody>
<tr>
<td>AQSIQ</td>
<td>The Chinese Administration of Quality Supervision, Inspection and Quarantine</td>
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<td>BAG</td>
<td>Biosafety Advisory Group</td>
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<td>CDC</td>
<td>United States Centers for Disease Control and Prevention</td>
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<td>EBS</td>
<td>Event-based surveillance</td>
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<td>EWAR</td>
<td>Early Warning and Response</td>
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<td>Food and Agriculture Organization of the United Nations</td>
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<td>Global Capacities Alert and Response</td>
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<td>ICAO-CAPSCA</td>
<td>International Civil Aviation Organization - Cooperative</td>
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<td>Arrangement for the Prevention of Spread of Communicable Disease through Air</td>
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<td>IHR</td>
<td>International Health Regulations</td>
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<td>MERS-CoV</td>
<td>Middle East respiratory syndrome coronavirus</td>
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<td>OIE</td>
<td>World Organisation for Animal Health</td>
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<td>PAGNet</td>
<td>Ports, Airports and Ground Crossings Network</td>
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<td>PVS</td>
<td>Performance of Veterinary Services</td>
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<td>Epidemiological Surveillance by SMS</td>
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Review of activities of the WHO Lyon Office in implementing the International Health Regulations - IHR (2005)

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In 2014, the Department of Global Capacities Alert and Response (GCR), which coordinates implementation of the International Health Regulations (IHR) at global level, was highly mobilized during the Ebola outbreak that began in Guinea in December 2013. The epidemic continued to spread at an alarming rate, with severely affected countries such as Guinea, Liberia and Sierra Leone struggling to bring the outbreak under control against a backdrop of crippled health systems, significant deficits in capacity and rampant fear.

The 2014 Ebola epidemic was the largest and most complex outbreak in the history of the disease, with an unprecedented number of countries affected, thousands of cases and deaths in the general population, and hundreds of infected health care workers. (As of 29 April 2015, 26 277 cases were reported worldwide, including 10 884 fatalities.) On 8 August 2014, the Director-General of WHO declared the outbreak a public health emergency of international concern under the provisions of the IHR (2005).

To respond to the most widespread epidemic of Ebola ever known, a roadmap was needed to stop transmission of the disease worldwide within six to nine months. Such a plan also needed to reduce the socioeconomic impact of the outbreak in areas of intense transmission and rapidly contain the consequences of the international spread of the virus.

During this major health crisis, nearly all the teams at the WHO Lyon Office were involved in and contributed to the implementation of Ebola response operations in affected countries and neighbouring countries considered at risk. At the beginning of 2015, the teams were mobilized to bolster the preparedness of all at-risk countries, especially those sharing land borders with an intense transmission area, and those with international transportation hubs.
The WHO Lyon Office

The work of the GCR department, of WHO headquarters, brings together States Parties, the international community and funding partners to develop a strong global framework to detect, assess and provide a coordinated response to events that potentially constitute a public health emergency of international concern.

The two main objectives of the department are:

- To support the development of strong national public health systems to maintain active surveillance of diseases and public health events; and where necessary, rapidly investigate reports, assess public health risks and share information in a timely manner, in order to implement the appropriate public health control measures.

- To further develop and maintain an effective international system capable of continuously assessing the global context of public health risks, coordinate a rapid response to unexpected events which may spread internationally, and contain public health threats at source to the extent possible.

GCR works in close collaboration with the six WHO regional offices involved in IHR implementation in order to promote knowledge sharing and harmonize practices among countries implementing the IHR. GCR also promotes financial and technical partnerships for priority countries that need to build up their IHR core capacities.

The GCR department is based at WHO headquarters and comprises two technical units. One unit is based in Geneva and ensures the active surveillance of diseases and public health events at the international level. The second unit is located in Lyon; its role is to provide guidance and support to countries, thereby enabling them to establish more effective public health systems. The Lyon Office is directly involved in IHR implementation, which is crucial for improving global health security.

The WHO Lyon Office is composed of five technical groups working at in the area of standard-setting and provision of operational support to countries in the following areas:

- strengthening the capacities of health and biosafety laboratories;
- strengthening public health capacities at ports, airports and ground crossings;
- supporting countries in strengthening their surveillance systems;
- developing human resource capacity and training; and
- monitoring and evaluating IHR implementation at country level (this group is located in Geneva)

This report presents an overview of activities carried out in 2014 by the teams at the Lyon Office and by the monitoring and evaluation team for national capacities.
On 2 March 2015, the WHO Lyon Office, located in Gerland since 2001, moved to its new home in the Tony Garnier building at 24 rue Jean Baldassini, in the heart of the Lyon-Gerland Biodistrict. The move was accomplished with the support of the Lyon Metropolis, which has been a steadfast partner of the Office since its establishment in France.

The WHO Lyon Office was the outcome of a concept developed by the French Government, the Lyon Metropolis, the Fondation Mérieux and WHO. The partnership on which the Office is based was initially agreed to in 2001 for a five-year period, and has since been regularly renewed. Lyon was chosen as the site of an offshoot of WHO headquarters in Geneva owing to its scientific, institutional and industrial development strategy, centred on vaccinology, immunology and biotechnology.

Since its establishment in 2001, the Lyon Office has benefited from the committed support of the French government, the Institut Pasteur, the Institut de Veille Sanitaire, the Rhône-Alpes region, the Rhône department, the Lyon Metropolis and the Fondation Mérieux. The financial and technical support of these partners is critical to the successful implementation of the department’s wide-reaching activities to help countries strengthen their public health systems.
WHO network of international partners for IHR implementation

IHR activities are carried out in partnership with WHO regional offices in all WHO regions and in a number of countries, thanks to the financial support of its main funding partners:

- Government of France
- Institut Pasteur
- Institut de Veille Sanitaire
- the Rhône-Alpes region
- the Rhône department
- the Lyon Metropolis
- the European Union
- Government of the United States and various governmental agencies, including the Centers for Disease Control and Prevention (CDC); United States Agency for International Development (USAID); Defense Threat Reduction Agency; Department of Defense; Department of State
- Government of Canada
- Government of Germany
- Government of the Russian Federation
- Government of Japan
- Government of the Netherlands
- Government of the United Kingdom
- the Bill and Melinda Gates Foundation
- World Organisation for Animal Health (OIE)
- Food and Agriculture Organization of the United Nations (FAO)
WHO offices around the world

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<tr>
<th>Region Number</th>
<th>Region Name</th>
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<td>06</td>
<td>WESTERN PACIFIC REGION</td>
<td>MANILA</td>
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HQ HEADQUARTERS

COUNTRY OFFICES
Introduction

The scientific community in Lyon: Synergies between the WHO Lyon Office and local and regional stakeholders

Key events in 2014

05-06/06
- Participation in BIOVISION World Life Sciences Forum, Lyon, France. Conferences were held on the themes of *The immune system, the key to health* and *Healthy Ageing*.

03/07
- Participation in the workshop *Preventing and containing outbreaks with public health databases* in the context of the *Encounters with the intelligent metropolis* initiative by the Lyon Metropolis. The initiative considers new issues from the perspective of the intelligent city, including public health, air quality, helping people become self-reliant, and involving consumers in reducing their energy consumption.

27/07
- Annual statutory meeting of the WHO Lyon Office with its partners: the key role of the Office, whose activities are intended to strengthen public health capacities within the IHR framework, was highlighted for its major contribution in improving global health security.

16/10
- Inaugural conference of the exhibition entitled *Mosquitos, ticks and fleas: the onslaught of vector-borne diseases*, Dr Mérieux Museum. Talk by Dr Stéphane de la Rocque: *Dengue, Chikungunya and other arboviruses: challenges for WHO in the globalization of regional public health issues*.

10-13/09
- Participation in the International Network of the Pasteur Institutes Symposium in Paris. More than 560 participants took part in the events, including a session on the Ebola virus in Africa, a session on cooperation with the international network of the Pasteur Institutes, and a meeting with the Global Fund and WHO. 

Introduction

27-28/10

- National Scientific Conference on the theme of Health and Biodiversity organized by VetAgro Sup and Humanité et Biodiversité, with the initiative and support of the Rhône-Alpes regional council, sponsored by the World Organisation for Animal Health (OIE), and with the participation and support of the Ministry of Ecology and Sustainable Development, the Ministry of Energy, the Rhône-Mediterranean-Corsica Water Agency, and the Health and Ecofect Regional Agency. The conference’s cross-disciplinary approach sought to bridge the gap between scientific advances and concrete experiences in order to answer the question: Does our health depend on biodiversity? The concept of One World, One Health, applied by WHO in joint programmes with OIE was cited to raise awareness to the fact that humanity is part of biodiversity and depends upon it, especially for its health.

http://sante-biodiversite.vetagro-sup.fr/?page_id=131

28/11

- The Lyon Metropolis Workshop – Investing in the Future Programme, City of tomorrow – Integrated urban modelling project, Gerland For City (4CT): The Lyon Office participated in this event dedicated to the development of the Gerland district as a part of the Gerland 4CT Project, at the forefront of the Lyon Urban Community activities in urban development.

AND ALSO...

- Participation in regular meetings of the steering and working committee of the BIOVISION group.

- Regular participation in the selection committee for BIOVISION Catalyzer projects, to be presented during the 10th edition of the forum, 15-16 April 2015.

Review of activities and achievements of the WHO Lyon Office in 2014
The health laboratory strengthening team began the year by redefining its strategic objectives and priorities following its merger with the biosafety team in Geneva. The aim of the merger was to achieve better integration of health laboratory and biorisk management capacity building.
Support for countries in the areas of standard-setting and global coordination

Since 2013 the team has provided ongoing coordination of the laboratory component for the Middle East respiratory syndrome coronavirus (MERS-CoV) outbreak team. In this capacity, a meeting of high-level experts in virology and representatives from affected countries was held at the WHO Lyon Office on 10 and 11 June 2014, at which the latest advances in laboratory diagnosis were presented and WHO recommendations for laboratory testing of MERS-CoV were updated.

In the area of biosafety, the team organized the first meeting since 2010 of the Extended Biosafety Advisory Group (BAG). Over 30 experts met in Geneva from 24 to 26 November 2014 to review the biosafety strategy and activities of WHO, and to make recommendations concerning priorities in the coming years. One of the main recommendations was to revise the WHO Laboratory Biosafety Manual (3rd edition), published in 2004. During this meeting, and in the course of subsequent virtual exchanges, WHO continued its discussions with the ISO Technical Committee 212, and in particular with the group responsible for developing an ISO norm for biorisk management. WHO has official status and the role of an observer in ISO, and in this capacity began contributing to the group’s work with a view to ensuring complementarity between the development of an ISO standard and the revision of the WHO Biosafety Manual.

In the area of transport and infectious substances, the team updated the publication, Guidance on regulations for the Transport of Infectious Substances, and the new version was published at the beginning of January 2015. The guide provides practical information for the transport of infectious substances by all modes of transport, including air, rail, sea and road, in compliance with international regulations. In addition, the team worked closely with the Food and Agriculture Organization of the United Nations (FAO) and OIE. This tripartite collaboration sought to improve the transport of infectious substances between laboratories in different countries in the human and animal health sectors, in order to accelerate diagnosis of epidemic diseases by reference laboratories when the affected country is unable to do so. Various stakeholders such as the World Customs Organization were identified and contacted in order to create a network of focal points and tackle cross-sector issues related to specimen transport.

WHO also rolled out its Laboratory Quality Stepwise Implementation Tool online in early January 2014. The tool offers a series of very specific daily activities that can be performed in the laboratory, and includes sample procedures, forms and documents that can be downloaded. The process consists of four phases and makes provision for the phased implementation of a quality management system in compliance with the requirements of the international quality standard ISO 15189:2012. The tool is currently being translated into the other WHO official languages for publication in 2015.

The team also contributed to the creation of a global action plan to combat antimicrobial resistance, focusing on the plan’s surveillance component. To this end, the team participated in a high-level technical meeting organized by the Ministry of Health and Social Affairs and the Public Health Agency of Sweden. The meeting, which was held in Stockholm from 2 to 3 December 2014, focused on the surveillance of antimicrobial resistance for local and global action.

3. www.who.int/ihr/lyon/hls_lqsi/en/
Operational support for countries / Technical support: strengthening public health capacities

The team continued to support laboratory capacity strengthening at the interface with veterinary laboratories for diagnosis of zoonoses through the IDENTIFY project, financed by USAID and jointly implemented by WHO, OIE and FAO. This project aims to strengthen diagnostic capacities in 13 countries in Africa and Asia, improve data transfer to surveillance systems, set up quality assurance and biosafety systems, and support national and regional emerging diseases networks. In the past five years, the project has encompassed numerous activities such as training, coordination, procurement of equipment or essential reagents, and provision of external quality assessment and supervision. These activities have been carried out mainly by WHO technical partners (collaborating centres, universities, reference laboratories, Pasteur Institutes, etc.) and consultants, under the coordination of WHO country and regional offices. The Lyon Office team was responsible for global coordination of the project and acted as the interface between regional and country offices and the project's beneficiary institutions (FAO, OIE), in addition to ensuring coordination with the donor, USAID. The following key activities were carried out under the scope of this project in 2014:

- A four-day training session for public health laboratory personnel in Gabon on the collection, conservation and culture of specimens, an integral part of the laboratory's implementation of a surveillance system for epidemic bacterial and viral diseases.

- Three evaluation missions carried out in the Republic of the Congo to establish sentinel sites for the surveillance of respiratory and enteric diseases.

- Two sessions over three days of training on strengthening capacities at district level to collect, package and securely ship laboratory specimens to confirm diagnosis, in conjunction with surveillance carried out by district focal points, coordinators, postal shipping focal points, laboratory technicians and clinicians in Uganda.

- A three-day training session for laboratory personnel from Cambodia, Lao People's Democratic Republic and Viet Nam on diagnosing helminths and neglected tropical diseases.

- A training session for laboratory personnel in Thailand on detecting zoonotic pathogens, in conjunction with face-to-face sessions over a period of three days involving 106 participants, and two days of hands-on training attended by 32 participants.
• A four-day national training workshop in Viet Nam on syndromic surveillance and diagnosis of enteric pathogens for laboratory directors and technicians.

• Laboratory support for investigations during outbreaks in the following cases:
  - Two Influenza-like illness outbreaks in two provinces of the Lao People’s Democratic Republic. Rapid intervention teams enabled the characterization of influenza isolates in the laboratory and the implementation of controls, thereby halting the outbreak.
  - A rabies outbreak in the Democratic Republic of the Congo in April 2014: the deployment of a rapid response team to administer the vaccine and anti-rabies serum on-site facilitated the task of outbreak management.
  - A yellow fever outbreak in the Democratic Republic of the Congo in April 2014: the deployment of a rapid response team facilitated the task of outbreak management.
  - Training of laboratory personnel to investigate an outbreak in Equatorial Guinea in May 2014.
  - In Cameroon, a network of inter-laboratory emergency contact numbers was established.

• Laboratory information management systems:
  - An Epi-Info laboratory database application was developed in Uganda for use by regional laboratories and their personnel in four countries targeted by the IDENTIFY project.
  - In Cambodia, the CamLIS system was recoded into an online platform to make a more user-friendly tool for laboratory use.

• External quality assessment of laboratories: the Lyon Office has supported several initiatives in numerous regions over the past years:
  - In the African Region: Cameroon, the Democratic Republic of the Congo, Equatorial Guinea, Gabon, the Republic of the Congo, and Uganda.
  - In the Asian region: Cambodia, Lao People’s Democratic Republic, Viet Nam, Indonesia, Bangladesh and Nepal are participating in an external quality assessment for serological and molecular diagnosis of dengue, Chikungunya and Zika virus.
  - In the Asian Region: Cambodia, Lao People’s Democratic Republic and Viet Nam are participating in an external quality assessment for microscopic diagnosis of helminths and malaria.
  - Viet Nam is participating in an external quality assessment for the diagnosis of food-borne pathogens and has implemented a national assessment for diagnosis of cholera and other enteric pathogens.

• Expert missions in quality management of laboratories were carried out in the Democratic Republic of the Congo, Equatorial Guinea, Gabon and the Republic of the Congo to train national laboratory personnel in quality management and assessment, best practices, and to develop an action plan for improving the laboratory quality.

• Training on the transport of infectious substances, including recommendations by the International Air Transport Association (IATA) for the packaging of laboratory specimens, was conducted in Nepal in July and August 2014 for hospital and laboratory personnel.

• Following the first national workshop in Lao People’s Democratic Republic in March 2014 on the gradual implementation of quality management in laboratories, a further workshop was held in September 2014 to prepare phase 2 of the process of national laboratory strengthening using the tool developed by the WHO Lyon Office.

• Coordination and communication strengthening activities among human and animal health laboratories, applying the principle of “One world, one health”, were carried out through meetings involving both sectors in Cameroon, the Democratic Republic of the Congo, Equatorial Guinea, Cambodia, Indonesia, Thailand and Bangladesh. The establishment of a framework for operations between the two groups is currently underway in Gabon.
A review of the IDENTIFY project, which was performed at the end of the project implementation period in 2014, demonstrated the progress that has been made in terms of diagnostic capacities for priority diseases and strengthening of laboratory quality. In the areas of timely reporting and laboratory networking at national level, however, progress has been minimal. The project made it possible to establish a solid base for harmonizing activities between the human and animal sectors, with the hope that future funding can strengthen this collaboration.

The year 2014 also saw the launch of a 3-year project financed by the European Union that aims to strengthen laboratories with a view to minimizing potential biological hazards, primarily focusing on the WHO European and Eastern Mediterranean Regions. Indeed, except for a few activities carried out at the global level (such as the meeting with the extended biosafety advisory group mentioned above), the principal objectives of the project are to help certain countries develop their national policies and strategic plans for laboratory capacity building, to strengthen public health laboratories at the institutional level through training and assessment, and to establish an inter-laboratory network.

Training in biorisk management and transport of infectious substances at the national or regional level was organized in Egypt, Turkey, Turkmenistan, Pakistan, Saudi Arabia, Tunisia and Algeria. WHO focal points responsible for the global network of poliomyelitis laboratories also received training, as did tuberculosis reference laboratory personnel from the Eastern Mediterranean Region.

Support for biosecurity and biosafety strengthening was initiated for four South-East Asian countries: Bangladesh, Indonesia, Myanmar, and Nepal. This two-year project is financed by the European Union and aims to support a range of activities in these countries, including laboratory assessments, the updating of biosafety regulations, the development of guides and manuals, and training. Additional training will begin in 2015 at the regional level and in additional countries. In the first year of the project, four awareness-raising missions and early project planning were undertaken in the four countries, followed by implementation of phase 1 activities at local level.

Also in the area of biosafety, in compliance with the mandate given to WHO by the World Health Assembly, the team prepared for the biannual inspection missions of the two laboratories authorized to store the smallpox virus in the Russian Federation and the United States of America. The team is responsible for ensuring that storage and research conditions comply with the most stringent requirements for biosecurity and biosafety. Two preliminary meetings with the inspection team, and a subsequent meeting with representatives from the two laboratories, were held in Geneva in September and October 2014, before the first inspection in Russia in December 2014. The inspection of the laboratory in the United States and the publication of the inspection reports are planned for 2015.

Finally, thanks to funding from the World Bank and OIE, the team was able to pursue its support for antibiotic resistance surveillance projects, sometimes in collaboration with veterinary services in the case of certain bacteria affecting both humans and animals, in Albania, Mongolia, Tajikistan, Cambodia and Samoa.
Support for Ebola preparedness and response

The team was mobilized for Ebola control efforts, sending two groups of staff to Sierra Leone in October and November 2014. The team also contributed to Ebola preparedness for other affected countries by publishing a laboratory assessment tool for Ebola diagnosis and contributing to the interim guide entitled *Laboratory diagnosis of Ebola virus disease*.

www.who.int/csr/resources/publications/ebola/laboratory/en/

The team leader also led the mission to support Ebola preparedness efforts in Mauritania in November 2014:

www.who.int/csr/resources/publications/ebola/preparedness-mauritania/en/
The IHR calls on Member States to maintain effective public health measures and response capacities at designated ports, airports and ground crossings. These measures can help protect the health of travellers and populations, and ensure the continued movement of ships, planes and ground transport, free from infection and contamination. The measures also help contain risks at source and enable public health recommendations to be carried out while limiting unnecessary restrictions on international travel and trade.

In 2014, in addition to activities centred on building up public health capacities at points of entry, the team’s activities focused on providing technical support and recommendations in response to the outbreak of the Ebola virus disease. Technical advice was provided to affected countries, at-risk countries in West Africa, and the wider international community, in particular through the special experts group on travel and international transport in the context of the Ebola outbreak.
Support for countries in the area of standard-setting

In 2014, the team prioritized supporting the Ebola outbreak response, specifically in the following three areas:

- Development and publication of recommendations to guarantee the safety of passengers and goods and ensuring coordination with stakeholders at the national level in order to minimize unnecessary travel and trade restrictions;

- Development of new guidelines and tailoring/adapting existing technical advice so that health measures at points of entry can take into account the specific risks incurred by travellers in the context of the Ebola outbreak;

- Development of training toolkits focusing specifically on needs in the context of the Ebola outbreak, in collaboration with the Learning Solutions and Training Support team.

These publications are available at: www.who.int/ihr/ports_airports/ru/
Ebola virus disease: Recommendations and operational support specifically adapted to Ebola management at points of entry:

Five guidance documents and tools specific to the Ebola virus disease were produced:

- **WHO interim recommendations for Ebola event management at points of entry — September 2014**:
  This document is intended for IHR national focal points, public health authorities and personnel at points of entry, transport operators, crew members of ships or aircraft and other stakeholders involved in the management of public health events. The aim is to provide early detection of potentially infected persons; to assist in implementing WHO recommendations related to Ebola management; and to prevent the international spread of the disease while helping authorities to avoid unnecessary restrictions and delays.
  

- **Travel and transport risk assessment: Interim guidance for public health authorities and the transport sector — September 2014**:
  This document includes background information on Ebola virus disease, Ebola emergency committee recommendations, disease risks for different groups, and information for people travelling to and arriving from Ebola-affected countries.
  

- **Ebola: Points-of-entry online training toolkits — November 2014**:
  These toolkits provide guidance to countries in order to strengthen their expertise and capacities in the area of initial risk assessment and management of Ebola events, with a view to organizing entry and exit screening where this step is warranted in the context of national preparedness and response planning at ports, airports and ground crossings, using a multisectoral approach. Upon completion of these courses, participants are also better able to identify critical steps and actions to cope with Ebola at points of entry.
  

- **Exit screening at airports, ports and ground crossings: Interim guidance for Ebola virus disease — November 2014**:
  The guidance is intended for use in countries with Ebola transmission. It may also be used as a reference and planning tool in any country.
  
• **Entry screening at airports, ports and ground crossings for Ebola virus disease: – December 2014:**

Technical note for Ebola preparedness planning (December 2014): This document provides recommendations to facilitate planning of entry screening at points of entry. It was developed in collaboration with CDC, ICAO and IATA. It includes planning for entry screening, overview of entry-screening operations, data management, sample checklists, declaration templates and other forms. The document is available in English.


*These documents are intended for IHR national focal points, public health authorities, personnel at points of entry, transport operators, crew members and other stakeholders involved in the management of public health events.*

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**Ebola planning and preparedness, and missions to countries for strengthening core capacities as required under the IHR**

The team took part in an Ebola preparedness mission in Benin. The mission objectives were to help Benin to develop a national plan for strengthening health measures at points of entry as required under the IHR. In particular, the mission aimed to develop a preparedness and action plan for points of entry specifically geared to the risks connected with the Ebola outbreak. The mission report is available here:


In addition, the team participated in a mission to Dakar, Senegal from 7 to 20 October 2014 to carry out an evaluation of IHR core capacities, and to assist in the development of national preparedness plans for Ebola virus disease at points of entry.
September 2013 saw the launch of the first collaborative project between WHO and the European Union for IHR implementation at points of entry. The project, which was rolled out over 24 months and ended in July 2015, encompassed global, regional and national activities, with particular focus on the WHO Eastern Mediterranean and European Regions. The aim of the project was to increase health security at global level by providing technical guidance and tools, sharing information and expertise, fostering international collaboration, and supporting countries as they improve and build capacities in the areas of prevention, detection and control of public health events connected with international travel and transport. In particular, the project aimed to establish a training programme for ship inspection, and to provide country support for implementing public health emergency response plans using a multi-sectoral approach.

Some of the highlights of 2014, within the framework of this partnership, were:

- **Organisation of the global PAGNet (Ports, Airports and Ground Crossings Network) meeting** – Lyon, France, 16-17 april 2014
  74 participants from 29 Member States belonging to the six WHO regions attended the meeting (ICAO, UNWTO, IOM, IAEA, OIE, ECDC, IATA, CLIA ), as well as participants from European Union projects, EU SHIPSAN ACT Joint Action and AIRSAN. The meeting included presentations, round tables and group sessions to facilitate networking, exchange of experiences and collaboration, and to foster harmonization of practices. The main topics dealt with were the various types of risks, in particular radiological and nuclear emergencies, and chemical safety. Special attention was given to cross-border collaboration, mass gatherings and multi-sector collaboration in the areas of public health, travel and transport.

- **Informal Consultation on the technical guidance project (ports, airports and ground crossings)** – Lyon, France, 14-15 avril 2014
  This meeting was held prior to the global meeting of PAGNet, and thus facilitated good representation of national technical officers specializing in port health management. The objective of the meeting was to draft four guidance documents: WHO procedures for port and airport certification under the IHR; communication strengthening between points of entry and health surveillance systems; management of health events on ships; and management of health events in the aviation sector.
Events related to air transport:

- **WHO/Eastern Mediterranean Regional Course – On-board sanitary inspection and issuance of sanitary certificates – Training programme within the IHR (2005) framework (online and face-to-face training)** — Tangier, Morocco, 22-25 September 2014
  
  The in-person training was held in the context of and with the support of the European Union Contribution Agreement with WHO for strengthening health security in ports, airports and ground crossings. The course provided training for port health officers from Djibouti, Egypt, Jordan, Lebanon, Libya, Morocco, Somalia, Sudan, Syria, Tunisia and Algeria, attending as an observer.

- **WHO/Europe Regional Course – On-board sanitary inspection and issuance of sanitary certificates – IHR (2005) training programme (online and face-to-face training)** — Saint Petersburg, Russian Federation, 31 March-16 May 2014
  
  The in-person training was held in collaboration with the Federal Service for Surveillance on Consumer Rights Protection and Human Well-being (Rospotrebnadzor) of the Russian Federation, in the context of and with the support of the European Union Contribution Agreement with WHO for strengthening health security at ports, airports and ground crossings. The course provided training to port health officers from Albania, Azerbaijan, Denmark, Estonia, the Russian Federation, Finland, Georgia, Latvia, Lithuania, and Ukraine, following the WHO learning programme on ship inspection and the issuance of sanitary certificates. The face-to-face course was facilitated by the WHO team for ports, airports and ground crossings, in addition to English- and Russian-speaking international experts, with simultaneous interpretation.

In 2014, 600 port health officers participated in WHO training courses on points of entry.
Coordination, cooperation and networking at international level

One of the team’s key tasks is to facilitate the exchange of information and best practices among all stakeholders and countries in the international community. Below are some of the highlights of these collaborative activities:

• **PAGNet Platform**
PAGNet is a web-based network that brings together public health officials specializing in international travel and transport with key partners to share information on public health activities at ports, airports and ground crossings, including preparedness for and response to health emergencies affecting international travel and transport. PAGNet seeks to protect public health and prevent, detect and control the international spread of diseases and pathogens via international travel and transport. The exchange of expertise, information and best practices was particularly important in 2014 during the Ebola outbreak. In 2014, 140 new participants joined the PAGNet community.

• **WHO Collaborating Centre for IHR – Points of Entry in China (AQSIQ)**
In July 2014, WHO designated a new Collaborating Centre for IHR – Points of Entry, the General Administration of Quality Supervision, Inspection and Quarantine (AQSIQ) of the People’s Republic of China. AQSIQ will support WHO by developing technical guidance, tools, networks, and activities at global level for implementation of IHR core capacities, such as the establishment of a global platform for vector identification. A number of WHO bodies will work with the Collaborating Centre, including the WHO Regional Office for the Western Pacific, the GCR Department, the support unit for the assessment, development and maintenance of IHR capacities, the ports, airports and ground crossings team, and the Department of Control of Neglected Tropical Diseases.

• **WHO Collaborating Centre for IHR – Points of Entry in Greece (University of Thessaly)**
In February 2014, WHO designated the University of Thessaly (UTH) a WHO Collaborating Centre. UTH will assist WHO in training activities related to health inspections on board vessels and public health event management at points of entry, for example by establishing a roster of experts/trainers. UTH will also assist WHO in training activities focusing on health and management of health events on ships and at points of entry (ports), and in the context of international travel and transport.

Additional information on WHO Collaborating Centres can be found at:
http://who.int/collaboratingcentres/fr/

In air transport:

• **OACI-CAPSCA**
International Civil Aviation Organization – Cooperative Arrangement for the Prevention of Spread of Communicable Disease through Air Travel Project: A cooperative agreement for preventing the spread of communicable diseases by air transport

• **AIRSAN Project**
A project to help Member States of the European Union provide an organized and coherent response to public health events in air transport.
In maritime transport:

- **SHIPSAN ACT Joint Action**
  The objective of this project is to provide support to Member States of the European Union in managing the impact on goods transport, and also public health threats caused by radiological events and communicable diseases. The project also helps to support implementation of IHR (2005).

- **Participation in EU SHIPSAN ACT training in Athens, Greece, on 3 March, in preparation for the WHO workshop on on-board sanitary certification, held at Piraeus, Greece, from 4 to 7 March 2014.**
  The workshop included a “train the trainer” course and a course for port health officers and professional seafarers, bringing together trainers and trainees from more than 20 European countries. The training was preceded by a mandatory online course that was a prerequisite for taking part in the on-site training.
3. SUPPORT TO NATIONAL SURVEILLANCE

The recent events connected with the Ebola outbreak in West Africa proved, if such proof were needed, that all countries must have effective national surveillance systems to detect, assess and respond to any number of risks that could threaten public health.

In close collaboration with WHO Regional Offices, the mission of the national surveillance support team was to help countries to acquire or strengthen core capacities in surveillance and response, in accordance with the requirements set out in Annex 1A of the revised IHR (2005). Support was given at both normative and operational levels for the development of a range of guidelines and tools, backed up by technical support for implementation. Particular attention was given to human resources and further training and skills acquisition for public health workers.
Support for countries in the area of standard-setting

Early warning and response

The IHR (2005) expanded the notion of reporting, originally restricted to infectious diseases, to include surveillance of public health events originating from all causes. The regulations encourage Member States to strengthen the capacities of their surveillance systems for early detection and rapid response to all potential threats. The organized mechanism to achieve this objective is referred to as Early Warning and Response (EWAR).

The early warning components of conventional epidemiological surveillance systems rely primarily on information collected in health facilities. Article 9 of the IHR (2005) stipulates that the national EWAR system should integrate collection and analysis of unstructured information, in particular from sources outside the health system. This type of surveillance is called Event-Based Surveillance (EBS).

With the assistance of a task force composed of technical experts and partners belonging to different health ministries which met three times in 2013, the team developed and finalized guidelines entitled “Early detection, assessment and response to acute public health events: implementation of early warning and response with a focus on event-based surveillance.” The guide is intended to assist national health authorities in establishing surveillance systems to better detect and respond to all types of public health emergencies.

The guide was written in English and has been translated into French and Russian. A short advocacy paper was also published to explain the topic to authorities with no technical expertise in surveillance.
Coordinated public health surveillance between points of entry and national health surveillance systems: Advising principles

The purpose of this document is to help the competent authorities responsible for IHR implementation to improve national capacities for the prevention, detection and control of events, by strengthening communication and coordination between points of entry and national health surveillance systems. The guide suggests steps for strengthening communications mechanisms and defines criteria for deciding what and how events should be reported between points of entry and the national health surveillance system.

Coordination of public health surveillance between ports of entry and national health surveillance systems

Pertinent information for EWAR is also generated at points of entry, including ports, airports and ground crossings. It is crucial that this information be reported in a timely manner to the national health surveillance system. In the same way, it is important that information available to national health surveillance systems should be efficiently relayed to surveillance personnel at ports of entry.

A number of experts have reported a lack of coordination between national health surveillance systems and authorities at points of entry. This guide is a response to this issue, and was developed by the team in collaboration with institutional technical partners, officials from various ministries of health and all WHO Regional Offices. The purpose of the guide is to help the competent authorities responsible for IHR implementation to improve communication and coordination between points of entry and national health surveillance systems.
Support for countries at operational level / technical support: development of public health capacities

Ebola outbreak preparedness and response in West Africa

Members of the national surveillance systems team began contributing to outbreak control in April 2014, working in the affected countries of Guinea, Liberia and Sierra Leone. They participated in the coordination of WHO response activities and in the management of epidemiological surveillance systems.

Early warning and response

In order to plan for national EWAR strengthening, two regional consultations were organized. The first was held in Cairo, Egypt, from 13 to 15 May 2014, and was attended by twelve countries from the Eastern Mediterranean Region and international experts. The consultation concluded that it was necessary to assess the operation of existing surveillance systems in countries across the region and to strengthen the event-based surveillance component. The aim of the second meeting was to observe practices and identify needs related to EWAR in Central Asian countries, including Kazakhstan, Kyrgyzstan, Uzbekistan, Tajikistan and Turkmenistan. The meeting was held in Almaty, Kazakhstan, from 23 to 29 May, and was attended by external and WHO technical experts, in addition to officials from the ministries of health of five Central Asian countries. The meeting showed that event-based surveillance is weak and that warning systems rely principally on indicator-based surveillance.

Transmission of epidemiological surveillance data

In order to facilitate rapid transmission of disease surveillance data from sites without Internet access, the team created an SMS solution called SES (Epidemiological Surveillance by SMS). In the course of 2014, an Android interface was developed to improve user-friendliness. At the request of Moroccan health authorities, SES was integrated into the Moroccan national disease surveillance online platform, and a pilot project to assess its performance was rolled out in two regions of the country.
4. HUMAN RESOURCES DEVELOPMENT AND TRAINING

Strengthening the competencies and skills of health personnel is essential for maintaining surveillance at all levels of health systems and for effective implementation of IHR. The revised IHR calls on Member States to maintain existing and strengthen long-term capacities to “prevent, detect, inform and respond” in a timely manner to events that may constitute a public health emergency of international concern. Sufficient human resources are essential to meet this objective.
Support for countries in the area of standard-setting

IHR training: a new approach

Within the context of IHR implementation, it is critical to help countries train future generations of public health leaders and professionals to ensure: 1. an increase in the number of professionals who share a common approach to the application of the IHR framework; 2. that IHR-specific issues are consistently and sustainably integrated into the existing and future learning programmes of the relevant professionals; and 3. that countries are empowered to take ownership of learning on IHR issues, by adapting approaches and training materials tailored to their respective national contexts.

Building on the achievements of the international training course on IHR implementation developed by the Lyon Office several years ago, the GCR department is rolling out a comprehensive approach to training on health security in the context of IHR, geared to individuals and institutions alike. This approach focuses on the following areas:

- **Guidance:**
  WHO is developing the concepts, procedures and tools to guide member states in the design and implementation of effective strategies and learning plans to build up IHR capacities. In addition, WHO is helping countries create new approaches to identifying needs and assessing learning programmes.

- **Training:**
  To help professionals and national public health institutions, WHO is developing training material within the framework of IHR and related technical areas. WHO is also collaborating with training and public health institutes to facilitate knowledge transfer and ensure that IHR training courses are adapted to the specific needs of regions and countries.

- **Sharing:**
  WHO hosts an online platform to respond to the learning needs of the principal stakeholders involved in IHR implementation. The platform provides access to documents, forums, training modules and webinars. The overall goal of the platform is to create a global community of practice and facilitate collaborative learning through the sharing of experiences and lessons learned.
This approach is also supported by two parallel projects:

- **Training platform on health security**
  One project involves updating the IHR training site and setting up a virtual learning environment on health security in the context of IHR. This new site will host information on all existing and future IHR-related training activities, and different learning and knowledge-management web-based applications (chat groups, webinars, wikis, etc.). The *Health Security Learning Platform* is now available to WHO partners worldwide.

  https://extranet.who.int/hslp/training/

- **Development of a multi-purpose IHR training toolkit**
  The IHR training toolkit includes a full suite of training modules, materials and educational tools. The scope and content of the toolkit were designed to be used by institutions and organizations from a range of sectors (health, food and agriculture, transport, travel and trade, education, and defence) to enhance the capacities of professionals working in different areas affected by the IHR.

  The toolkit is constantly evolving and now includes several training modules, including IHR health security, inter-sector collaboration, IHR and health systems, and IHR and points of entry. Other modules will be added in 2015 and 2016, including modules on laboratories and surveillance systems.
Support for countries at operational level / technical support: developing public health capacities

In 2014, the human resources development team continued its mission to support countries and GCR teams in the field by designing and implementing training programmes to improve IHR capacities.

Ebola training

When WHO declared the Ebola outbreak a public health emergency of international concern in August 2014, the Learning Solutions and Training Support team began working on training courses and outbreak response activities. Subsequent activities focused on country preparedness in the event of an outbreak.

- ePROTECT: In collaboration with the technical teams in charge of deployment of WHO staff and consultants in countries affected by Ebola, the team rolled out an online training course, Basic occupational health and safety pre-deployment training.
  
  https://extranet.who.int/hslp/training/course/view.php?id=102

  The course is available in English and French. By the end of 2014, 429 people had participated in the English version and 15 people in the French version, from over 50 countries.

- In collaboration with the ports, airports and ground crossings team, the training team created three online training activities focusing on Ebola and points of entry: 1. Ebola event management at ports of entry (available in English, French and Portuguese); 2. Ebola exit screening at ports, airports and ground crossings (in English) and 3. Ebola entry screening at ports, airports and ground crossings.

  https://extranet.who.int/hslp/training/course/index.php?categoryid=28

- The training team also worked with the WHO Regional Office for Africa to revise, finalize, and post online a training kit on Ebola outbreak preparedness, intended principally for countries at risk. This training kit reviews each component of the preparation list.

  https://extranet.who.int/hslp/training/course/view.php?id=100
Tutorial for IHR (2005) Notification Assessment

The team continued to work with the IHR secretariat team to update and adapt an online version of this tutorial, which is accessible on the Health Security Learning Platform site. The tutorial is organized around five quick exercises that give national officials the opportunity to practise using the Decision Instrument and gain awareness of events which may constitute a public health emergency of international concern. Users of the tutorial benefit from the feedback of the expert panels that constructed the scenarios.

The tutorial is now available in the six official languages of the United Nations.

https://extranet.who.int/hslp/training/course/index.php?categoryid=25

- **IHR training for Russian-speaking countries**
  In collaboration with WHO Regional Office for Europe, the team developed an IHR training programme with the IHR training kit intended for public health officials and related sectors in Russian-speaking countries. This on-the-job training demonstrated the relevance and effectiveness of the tool and of the proposed approach to facilitate its widespread use. It also provided important information on the development and/or revision of content in specific areas, and on the organization and accessibility of the IHR learning kit online.

- **Support for design and development of online training**
  The team provided support for the design, development and review of online training modules:
  - Adaptation of the course on Ship Health Inspections with the version 2 update into 7 languages;
  - Laboratory Leadership (health laboratory strengthening team);
  - Training activities for Ebola preparedness and response.

- **Support for workshops, seminars and training sessions**
  The team assisted with workshops, seminars and training sessions in the department (early warning and event-based surveillance) and within the Organization as a whole, including an IHR session for WHO country representatives; a session on WHO response in emergencies for newcomers to the organization; a training programme for countries on national health politics, strategies and plans; and the development of a management performance mechanism for the WHO African Region.
5. MONITORING AND EVALUATION OF NATIONAL CAPACITIES

The need for robust national health systems and capacities lies at the heart of the international system for a coordinated response to events that potentially constitute a public health emergency of international concern. All States Parties are required to possess or to develop minimum core public health capacities to implement the IHR (2005) and ensure that these are functional and effective.
IHR monitoring framework

To facilitate States Parties’ obligation to report annually to the World Health Assembly on progress made in implementing the Regulations¹, an IHR monitoring framework was developed and a corresponding monitoring questionnaire has been sent to States Parties annually since 2010. The IHR monitoring process evaluates the development status of eight core capacities², as well as capacities at ports, airports and ground crossings. It also assesses risks linked to the biological hazards specified in the IHR, whether zoonoses or food safety; and chemical, radiological and nuclear risks - with the help of a checklist of 20 global indicators.

Monitoring data are collected from Member States each year by the WHO secretariat and subsequently analysed. IHR information transmitted by national focal points is then presented in the form of reports, consolidated according to capacity, region or country. All documents are made available to State Parties via a password-protected secure platform. Some of the documents are made available to the public on the WHO website³. In 2014, the data and analyses were also sent to members of the IHR Review Committee to allow them to better understand the state of progress of IHR (2005) implementation among States Parties⁴.

1. Implementation of the International Health Regulations (2005) (article 54) and World Health Assembly Resolution A61/7: http://apps.who.int/gb/ebwha/pdf_files/A61/A61_7-en.pdf
2. Legislation and policy, coordination, surveillance, response, preparedness, risk communication, human resources, laboratory.
3. www.who.int/ihr/procedures/monitoring/en/
Progress on IHR implementation at country level

In 2014, 159 of the 196 State Parties (81%) submitted a report to WHO on IHR (2005) implementation. Data for the year showed that State Parties had made good progress on a number of core capacities, notably in the areas of zoonotic diseases, surveillance, response, laboratories, coordination, legislation policy, risk communication, and food safety. – See Figure 1.

Figure 1.
National implementation of core capacities as of 19 March 2015
Launch of IHR theme page on the Global Health Observatory

The data from the IHR monitoring framework for 2012 and 2013 were communicated to States Parties through the reports of the Executive Board and World Health Assembly.

In order to make the data accessible to a wider public, they were also published in 2014 by the Global Health Observatory, the WHO portal that provides access to data, analyses, and interactive maps and tables for monitoring global health situations, as illustrated in Figures 2 and 3. IHR core capacity scores are now communicated by capacity and by country, and downloadable as tables, charts and maps. The launch of the site was advertised via an information leaflet distributed at the 2014 World Health Assembly, and through an email sent to all IHR national focal points.

At the time of writing, preparations are under way to publish all available monitoring data from 2010 to 2014 on the site in time for the 2015 World Health Assembly. During the past five years, 192 of the 196 State Parties have submitted a report to WHO on the progress of their IHR (2005) implementation.

1. www.who.int/gho/ihr/en/
New approaches to monitoring IHR capacities

The IHR monitoring framework has been used by 192 States Parties at least once over the past five years in order to submit their yearly report to the World Health Assembly. Nevertheless, there may exist different requirements and purposes for IHR (2005) monitoring and evaluation, which might not be met by the existing IHR monitoring framework. In 2014, as the two-year period of first extensions in 2012 came to an end, and with the deadline of the second extension period in 2014-2016 in sight, a discussion around monitoring the “functioning” of IHR (2005) as opposed to IHR “capacities” generated considerable interest among many partners. This was borne out by the IHR Review Committee on second extensions for establishing national public health capacities and on IHR implementation, whose Recommendation 7 stipulated:

“The Review Committee recommends that the Director-General consider a variety of approaches for the shorter- and longer-term assessment and development of IHR core capacities.”

Discussions on IHR (2005) monitoring and evaluation were held at WHO headquarters, and with colleagues in WHO Regions (the Americas, Western Pacific and South-East Asia) during 2014. At the time of writing, discussions were centred on proposing a methodological approach to Member States at the 2015 World Health Assembly in May. Among the options being considered to evaluate the level of functionality of IHR capacities at national level is an independent evaluation process.

Unlike other vertical programmes which target diseases only, the IHR (2005) encompass a broad range of areas including communicable diseases, food safety, the human-animal interface, chemical safety, and radiation. Pertinent and presumably useful databases exist in numerous places, but the relevant technical personnel are not aware of them. An IHR database project is currently being developed to gather this public or confidential information in one place and thus establish an IHR “one-stop-shop” to better assist IHR focal points.

Initial discussions have taken place with WHO technical units and IT specification needs have been identified. The search for IT specialists to implement the project is under way.

A multi-sectoral approach to IHR country support: National workshop on convergence of approaches in animal health (OIE) and human health (WHO)

Following the signing of the FAO-OIE-WHO Tripartite Concept Note, numerous steps were undertaken to harmonize and coordinate activities between the animal and human sectors in order to address health risks at the human-animal interface.

To improve long-term compliance with standards by national veterinary services, OIE has developed an assessment tool, PVS (Performance of Veterinary Services). The tool includes various components that allow countries to objectively evaluate their veterinary services and identify principal shortcomings. Some of these components include the OIE-PVS tool for qualitative assessment, the PVS-GAP analysis tool for quantitative assessment, and others that help determine the scope and costs of a system reform or update.

In 2014, with the help of the OIE-PVS tool and WHO monitoring framework for IHR, National Bridging Workshops with OIE and WHO were organized and held in Azerbaijan and Thailand. The workshops facilitated contact between the two sectors at national level and made it possible to review gaps in the IHR and PVS processes and identify common priorities. The workshops brought home the fact that the initiative was highly appreciated nationally, by WHO and OIE regional structures, and by partners at the global level, and that the approach adopted had been effective in developing new ideas and generating a concerted procedure for planning and implementation.

IHR Costing Tool

In order to better manage gaps identified in IHR core capacities, it is important to know the real costs associated with their implementation and maintenance.

Since 2012, WHO has been working with external partners to develop a methodology for estimating the costs that States Parties have to shoulder when complying with IHR provisions on implementing core capacities, and for providing effective and targeted support for capacity-building.

In 2014, a costing tool prototype was field-tested in Jordan and the Republic of Moldova. The feedback was discussed at two meetings with participants at national level and external partners at international level and incorporated into the final version of the tool, which was completed by year end.
Future directions
In 2015, the WHO Lyon Office, in accordance with its mandate from headquarters, and in close collaboration with the six regional offices, will pursue its efforts to support countries in the areas of technical assistance and standard-setting in the context of IHR capacity building.

Special attention will be paid to countries that requested and received a final extension to implement the IHR by 2016. Technical teams will continue their work to identify technical areas and priority countries in order to provide guidance, training activities and development of appropriate tools.

In accordance with its terms of reference within the Global Capacities Alert and Response Department, the WHO Lyon Office will pursue its international advocacy work, multi-sectoral partnerships and mobilization of the international community to broaden the global network of engaged partners and to support efforts to ensure better preparedness for and response to future health threats.
Annexes
# Ebola virus disease

## Publications and reference tools

### Laboratory
- **Laboratory Assessment Tool - short version for EVD/VHF** (Only for Ebola/VHF diagnosis capacity and not for clinical testing for Ebola/VHF patients)
  - Annex 1: System questionnaire
  - Annex 2: Facility questionnaire

  *Available in English and French*

  - [www.who.int/ihr/publications/laboratory_tool/fr/](http://www.who.int/ihr/publications/laboratory_tool/fr/)

### Human resources development: Online training
- **ePROTECT: Basic occupational health and safety pre-deployment training**
  *Available in English and French*

  - [https://extranet.who.int/hslp/training/](https://extranet.who.int/hslp/training/)

### Preparedness
- **Mauritania preparedness country visit report November 2014**
  *Available in English and French*

  - [http://apps.who.int/ebola/our-work/preparedness/country-visit-reports](http://apps.who.int/ebola/our-work/preparedness/country-visit-reports)

### Points of entry
- **Ebola: Points of entry online training toolkits**
  - **WHO Interim guidance for Ebola event management at points of entry**
    *Available in English, French and Portuguese*

    - [https://extranet.who.int/ihr/training/course/category.php?id=28](https://extranet.who.int/ihr/training/course/category.php?id=28)
  - **Ebola — Exit screening at airports, ports and land crossings: Interim guidance.**
    *Available in English, French and Portuguese*

  - **Ebola — Entry screening at ports, airports and ground crossings: Interim guidance**
    *Available in English, French and Portuguese*

Laboratories, biosafety and biosecurity

- **Health laboratory strengthening:** Laboratory Quality Stepwise Implementation tool (LQSI)
  Strengthening laboratory services and systems is essential for universal access to high quality laboratory diagnostic services. This web-based tool provides a stepwise plan to guide medical laboratories towards implementing a quality management system in accordance with the requirements of ISO 15189. It was developed in collaboration with the Royal Tropical Institute from the Netherlands.
  www.who.int/ihr/lyon/hls_lqsi/en/

- **Laboratory Testing for Middle East Respiratory Syndrome Coronavirus:** Interim recommendations (revised), September 2014
  This document provides interim recommendations to laboratories and stakeholders involved in laboratory testing for Middle East respiratory syndrome coronavirus (MERS-CoV). The first version of these recommendations was published in December 2012 and since then the understanding of the virus and the disease it causes in humans and animals has increased significantly. The recommendations were updated in September 2013 to incorporate new information on diagnostic assays. In June 2014 WHO hosted an international meeting of laboratory experts in Lyon, France to present the latest information on laboratory testing for MERS-CoV and to use this information to review the interim recommendations. This version of the laboratory testing recommendations is the result of those discussions. It is available for downloading at:
  www.who.int/csr/disease/coronavirus_infections/en/

- **Guidance on regulations for the Transport of Infectious Substances**
  The document provides practical guidance to facilitate compliance with applicable international regulations for the transport of infectious substances by all modes of transport, both nationally and internationally. This document was updated during the course of 2014 to include the changes that apply from 1 January 2015. Available in Arabic, English, French, Russian and Spanish.

Points of entry

- **Coordinated public health surveillance between points of entry and national health surveillance systems: Advising principles**
  The purpose of this document is to support competent authorities in charge of IHR implementation to improve national capacities for the prevention, detection and control of events, by strengthening communications and coordination between points of entry and the national health surveillance system provides steps for implementing and strengthening communication mechanisms and defines criteria for deciding what and how events should be reported between points of entry and the national health surveillance system. Available in English, French and Russian.
  www.who.int/ihr/publications/WHO_HSE_GCR_LYO_2014.12/fr/

Surveillance

- **Early detection, assessment and response to acute public health events: Implementation of Early Warning and Response with a focus on Event-Based Surveillance**
  This document seeks to provide national health authorities, and stakeholders supporting them, with guidance for implementing or enhancing all-hazards early warning and response mechanisms within national surveillance systems. It aims to provide direction regarding the implementation of surveillance capacities, especially event-based surveillance, in order to detect and to respond rapidly to all acute health events and risks from any origin. Available in English, French and Russian.
  www.who.int/ihr/publications/WHO_HSE_GCR_LYO_2014.4/fr/
  www.who.int/ihr/publications/WHO_HSE_GCR_LYO_2014.4/ru/
**Training on IHR**

- **Launch of Global Health Security Learning Platform**
  Building on the IHR training site with training targeting NFPs, WHO staff in the regional and country offices and others professional responsible for IHR implementation, 2014 saw the launch of the Health Security Learning Platform, which continues to develop IHR specific packages, such as Ship sanitation inspection and issuance of ship sanitation certificates learning programme, but has broadened its scope beyond IHR to encompass health security. The site also includes EVD-specific training packages covering a broad range of topics, from basic occupational health and safety pre-deployment training, to infection prevention and control, to packages specifically designed to manage EVD at ports, airports and ground crossings.
  
  [https://extranet.who.int/hslp/training/](https://extranet.who.int/hslp/training/)

- **Tutorials on the use of Annex 2 of the International Health Regulations (2005)**
  The training team continued to work with the IHR Secretariat team on the updating of exercises on IHR notification as laid out in Annex 2 of the Regulations. These exercises centre on five scenarios contained in each tutorial; members of the NFP and other relevant decision makers are requested to assess whether each of these events must be notified to WHO under the IHR (2005). Following the completion of each scenario the user will be provided with the responses proposed by an expert panel as well as explanations for these responses. These tutorials are accessible on the global health security learning platform and are now available in the six official languages of the United Nations.
  

**Monitoring and evaluation of IHR implementation**

- **Launch of IHR theme page on the WHO Global Health Observatory**
  In May 2014, GCR launched the IHR Monitoring Framework theme page on the Global Health Observatory, the WHO portal that provides data and analyses on global health priorities. The objective is to make information about IHR implementation in countries accessible to a wider audience. The IHR core capacity scores are now shared by capacity by country, downloadable as data tables, charts and maps.
  
  [www.who.int/gho/ihr/en/](http://www.who.int/gho/ihr/en/)
# Collaborating institutions

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### Technical partners

<table>
<thead>
<tr>
<th>Technical partners</th>
<th>Collaborating institutions</th>
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<tbody>
<tr>
<td>· Hamburg Port Health Centre</td>
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<tr>
<td>· National Health Surveillance Agency</td>
<td>ANVISA</td>
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<td>· Pasteur Institute</td>
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<td>· Robert Koch Institute</td>
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<td>· EMPHNET</td>
<td>Paris</td>
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<td>· US Centers for Disease Control and Prevention</td>
<td>CDC</td>
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<td>· World Organisation for Animal Health</td>
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<td>· World Customs Organizations</td>
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### Official WHO partners

<table>
<thead>
<tr>
<th>Official WHO partners</th>
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<tbody>
<tr>
<td>· International Air Transport Association</td>
<td>IATA</td>
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<td>· International Organization for Standardization</td>
<td>Geneva</td>
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Publico Text. Commercial Type

Printer
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