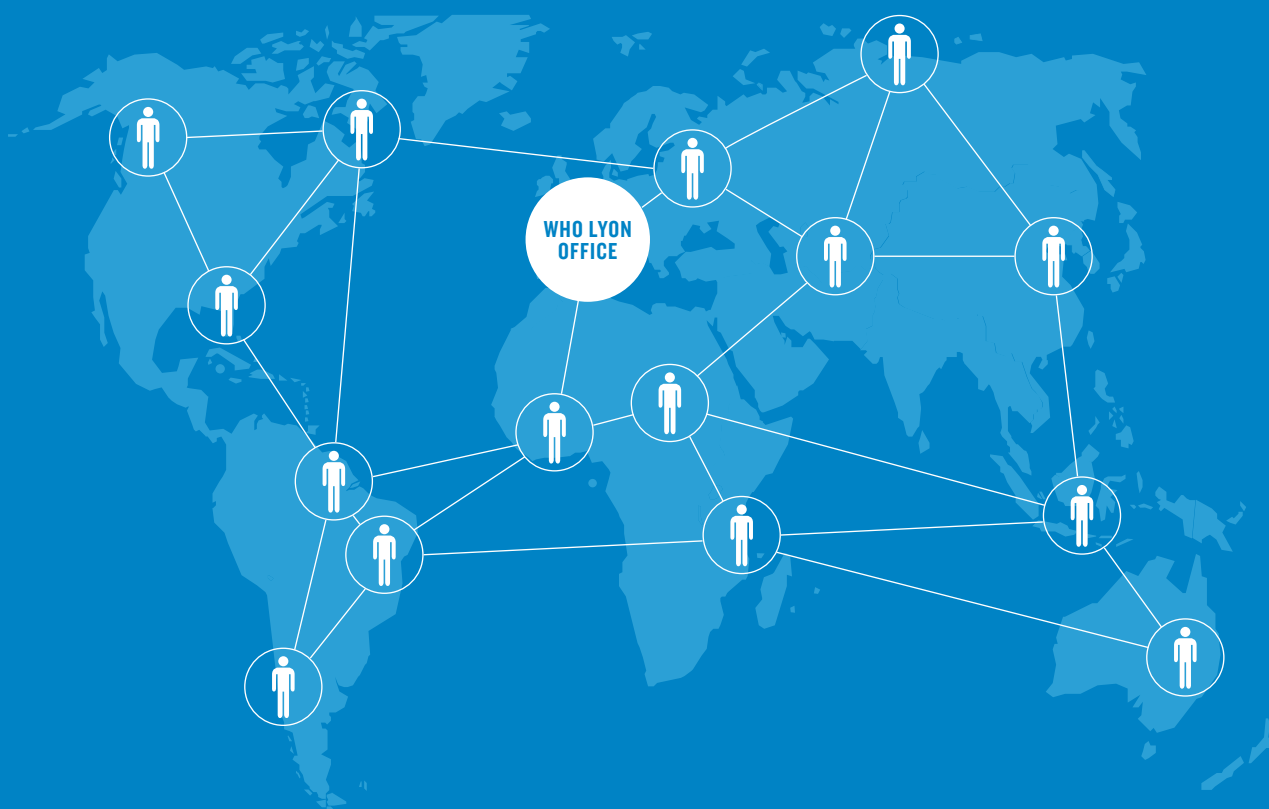


SUPPORT TO COUNTRIES FOR STRENGTHENING PUBLIC HEALTH CAPACITIES REQUIRED UNDER THE INTERNATIONAL HEALTH REGULATIONS (2005)

WHO LYON OFFICE

Department of Global Capacities, Alert and Response



ACTIVITY REPORT
January 2015 — September 2016



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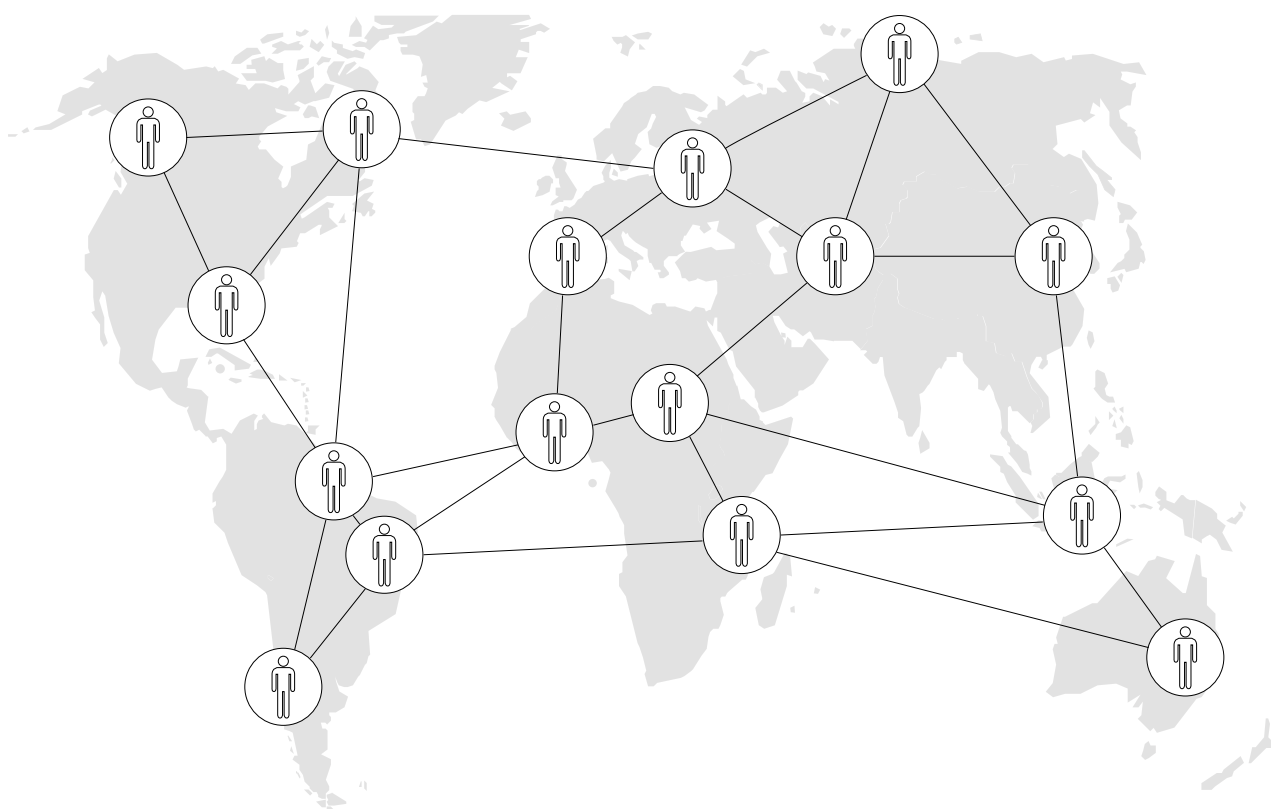
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WHO LYON OFFICE

Department of Global Capacities, Alert and Response



ACTIVITY REPORT

January 2015 — September 2016



**World Health
Organization**

ACRONYMS

AFRO

WHO Regional Office
for Africa

AMRO/PAHO

WHO Regional Office
for the Americas

EMRO

WHO Regional Office
for the Eastern
Mediterranean

EURO

WHO Regional Office
for Europe

FAO

Food and Agriculture
Organization of the
United Nations

IAEA

International Atomic
Energy Agency

IATA

International Air
Transport Association

ICAO

International Civil
Aviation Organization

IHR (2005)

International Health
Regulations (2005)

ILO

International Labour
Organization

IMO

International Maritime
Organization

OIE

International
Organisation for
Animal Health

SEARO

WHO Regional Office
for South-East Asia

UNESCO

United Nations
Educational,
Scientific and Cultural
Organization

UNDP

United Nations
Development
Programme

UNEP

United Nations
Environment Programme

UNFPA

United Nations
Population Fund

UN-HABITAT

United Nations Human
Settlements Programme

UNICEF

United Nations
Children's Fund

UNOPS

United Nations Office
for Project Services

WFP

World Food Programme

UNWTO

United Nations World
Tourism Organization

WMO

World Meteorological
Organization

WPRO

WHO Regional Office
for the Western Pacific

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FOREWORD

Recent epidemics of Ebola virus disease, Yellow fever and Zika virus have underscored the need to accelerate the acquisition by countries of the core public health capacities that are required in order to be able to prevent, detect and respond to an increasingly wide range of infectious and non-infectious hazards. In 2015 the fact that only one third of countries met the minimum requirements called for in the International Health Regulations (IHR (2005)) stimulated an unprecedented global political momentum and commitment to support countries to meet such requirements and for WHO's leadership role in strengthening global health security.

France, the European Union and WHO hosted the *High Level Conference on Global Health Security: Solutions for strengthening State's capacities* in Lyon, France from 22 to 23 March 2016. The 200 participants representing many countries around the world unanimously recognized the intersectoral and cross-cutting nature of health security and the need for skilled personnel. In his closing statement, President François Hollande stressed the commitment of France in support of WHO's activities notably to detect, prevent and respond to public health emergencies and in particular the work of the WHO Lyon Office, whose mission is to provide guidance and support to countries to have in place more effective national public health systems.

As stated by the Kobe Communiqué of the G7 Health ministers meeting, 11-12 September 2016, *“the IHR (2005) core capacities are an essential component of health systems strengthening and we continue to support countries and empower communities in need by strengthening their national health system programs, including addressing IHR core capacities and by ensuring optimal regional arrangements and synergies building on already existing structures, such as the WHO Department of Global Capacities Alert and Response and its Lyon Office and with other relevant global health initiatives, such as Global Health Security Agenda and the Alliance for Country Assessments for Global Health Security and IHR Implementation.”*

Within this global context, the WHO Lyon Office constitutes an essential element of the new WHO Health Emergencies Programme (WHE), particularly of its Department on Country Health Emergency Preparedness & International Health Regulations (CPI).



Organisation
mondiale de la Santé

THE WHO LYON OFFICE

THE WHO LYON OFFICE:

WHO Headquarters' main hub for technical support to countries to strengthen their intersectoral and cross-cutting capacities and to provide unique education in health security and IHR (2005)

In February 2001, the shared vision of former Prime Minister Mr Raymond Barre and WHO Director General Dr Gro Harlem Brundtland, led to the creation of a WHO Office in Lyon, part of WHO Headquarters and charged with support to resource-limited countries for strengthening their capacities for surveillance and detection during infectious disease outbreaks.

The Lyon Metropolis was chosen to house the Office, because of its geographic proximity with Geneva and Lyon's scientific, institutional and industrial development strategy. Lyon is indeed recognized as an international life sciences and health centre for research and high-level education. Since its creation in 2001, many international donor partners and cooperation agencies have joined this effort to support WHO's activities conducted from the Lyon Office and targeting all IHR (2005) States Parties around the world with a priority for highly vulnerable and low-resource countries.

From 2010 to 2016 the WHO Lyon Office has been part of the Department of Global Capacities, Alert and Response (GCR), itself part of the WHO Health Security Cluster at WHO Headquarters, who brings together States Parties to the IHR (2005), multisectoral stakeholders and funding partners to support countries develop stronger capacities to meet the IHR(2005) requirements.

The WHO Lyon Office has become a widely acknowledged reference centre for WHO Regional Offices and international partners for strengthening countries' prevention, detection and response to health emergencies. Within WHO the Lyon Office works closely with other Headquarters department and units, the six Regional offices, and the WHO Representations in more than 150 countries. The Lyon Office comprises a group of 25 staff representing 10 nationalities.

In February 2015 with the support of the Lyon Metropolis, the WHO Lyon Office moved to new premises at the heart of the Lyon-Gerland Biodistrict, an area grouping a large number of world leaders in academic, research and development in life sciences. It is also the district where the French high containment laboratory is located.

The four technical teams of the Lyon Office cover the critical capacities often missing in the most vulnerable countries. They include:

1. Surveillance capacities including early warning and early laboratory detection:

- a. Support to National Surveillance: this team works transversally across WHO and supports regional and country offices in reinforcing epidemiological surveillance within the national health systems.
- b. Laboratory Strengthening and Biorisk Management: this is the only WHO team that offers transversal support through a systemic and integrated approach in laboratory activities. It supports IHR States Parties for strengthening their laboratory capacity, biosafety and quality diagnostic.

2. Fostering intersectoral work with travel, tourism and transport and supporting capacities at points of entry.

The Ports, Airports and Ground Crossings team is the only WHO team that serves as the WHO interface for a wide range of operations and information exchange with partners from other sectors including the International Atomic Energy Agency (IAEA), International Air Transport Association (IATA), International Civil Aviation Organization (ICAO), International Maritime Organization (IMO), United Nations World Tourism Organization (UNWTO) within the UN as well as from the travel industry such as IATA. The team has a central role in strengthening surveillance and response capacities at ports, airports and ground crossings, in overseeing the delivering of official documents under the IHR (2005) such as the ship sanitation certificates, and promoting best practices and networking for emergency preparedness for travel, tourism and transport operators.

3. Support Member States' workforce development on health security and IHR implementation.

With its long-standing expertise in instructional design and distance learning, the Learning Solutions and Training Support team works transversally across WHO

and supports regional and country offices, with the design of targeted learning programmes and applications on a broad range of technical disciplines contributing to health security – from the training of national rapid response teams, to intersectoral collaboration at the Human – Animal interface, to laboratory diagnostics to surveillance, to IHR at points of entry, to risk communications, to occupational health – through blended learning approaches including face-to-face courses, the design of on-line tools and simulation exercises.

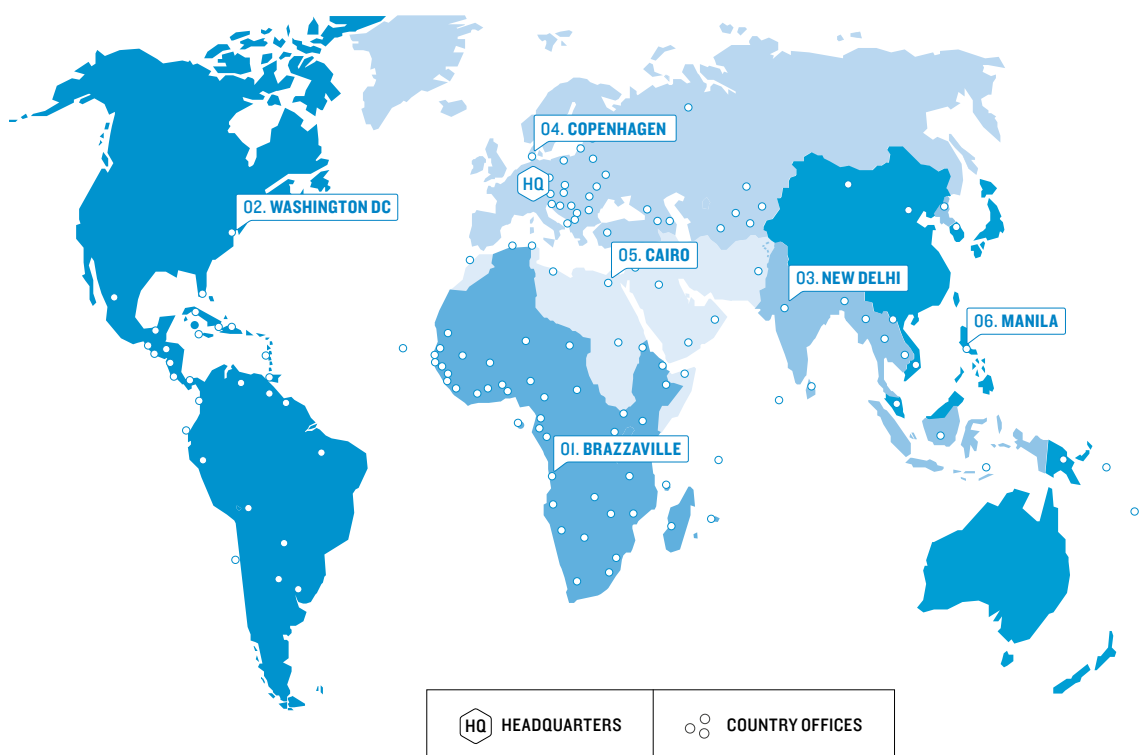
The combined intersectoral and transversal expertise gathered in the Lyon Office has been and remains essential to the efforts of WHO and its partners towards strengthening countries' capacities and better preparing the international community involved in travel, tourism and transport to respond to outbreaks and other health emergencies.

The Lyon Office also contributes to the development and implementation of the IHR (2005) Monitoring and Evaluation framework for core capacities combines qualitative and quantitative approaches involving, on a voluntary basis, external expertise to assess countries' actual capacities. Many governments, development agencies, and private partners have expressed strong interest in supporting the development or enhancement of national action plans to fill the gaps identified and improve country health emergency preparedness. The Lyon Office is involved in ensuring that gaps identified through external evaluation and reflected in national action plans are rapidly addressed, particularly in highly vulnerable countries.

This report presents a selection of highlights of the activities of the WHO Lyon Office from January 2015 to September 2016.

WHO OFFICES AROUND THE WORLD

<p>01</p> <p>AFRICAN REGION</p> <p>Regional Office BRAZZAVILLE</p>	<p>02</p> <p>REGION OF THE AMERICAS</p> <p>Regional Office WASHINGTON DC</p>	<p>03</p> <p>SOUTH-EAST ASIA REGION</p> <p>Regional Office NEW DELHI</p>	<p>04</p> <p>EUROPEAN REGION</p> <p>Regional Office COPENHAGEN</p>	<p>05</p> <p>EASTERN MEDITERRANEAN REGION</p> <p>Regional Office CAIRO</p>	<p>06</p> <p>WESTERN PACIFIC REGION</p> <p>Regional Office MANILA</p>
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THE WHO LYON OFFICE OVERARCHING ENVIRONMENT:

WHO strategic partnerships and initiatives with the objective of supporting capacity building in countries for global health security

THE INTERNATIONAL HEALTH REGULATIONS (2005)

The International Health Regulations (2005), or IHR (2005), represent an agreement between 196 countries including all WHO Member States to work together for global health security. Through the IHR, countries have agreed to build their capacities to detect, assess and report public health events. WHO plays the coordinating role in IHR and, together with its partners, helps countries to build such capacities. The IHR also include specific measures at ports, airports and ground crossings to limit the spread of health risks to neighbouring countries, and to prevent unwarranted travel and trade restrictions so that disruption to traffic and trade is kept to a minimum.

Following the unprecedented Ebola epidemic in West Africa, 2013-2016, many reviews of WHO's work in health and humanitarian emergencies and on the role of the IHR have been conducted. A WHO Global Implementation Plan for the Recommendations of the Review Committee on the Role of the International Health Regulations (2005) in the Ebola Outbreak and Response will be presented to the World Health Assembly in 2017. This plan will constitute an essential framework for the work of the Department of Country Health Emergency Preparedness & IHR, including the Lyon Office.

THE UNIVERSAL HEALTH COVERAGE BY 2030 INITIATIVE

The United Nations Sustainable Development Goals, that all UN Member States have agreed to, seek to achieve Universal Health Coverage by 2030. This includes financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all. Strengthened and resilient health systems are central to, and dependent on, health security. Efforts for universal health coverage and work for health security are

mutually reinforcing and bring sustainability and effectiveness of a country's preparedness efforts, while avoiding the creation of a vertical health security silo.

Strong primary-care-oriented health systems are essential for health security while in turn better health security strengthens health systems. Key areas for joint work include: infection prevention and control, community engagement, health workforce development, diagnostic capacity, recovery planning, etc.

THE PANDEMIC INFLUENZA PREPAREDNESS (PIP) FRAMEWORK

The PIP Framework brings together Member States, industry, other stakeholders and WHO to implement a global approach to pandemic influenza preparedness and response. Its key goals include improving and strengthening the sharing of influenza viruses with human pandemic potential; and increasing the access of developing countries to vaccines and other pandemic related supplies. The Framework was developed by WHO Member States. It became effective on 24 May 2011 when it was unanimously adopted by the Sixty-fourth World Health Assembly.

THE WORLD ORGANISATION FOR ANIMAL HEALTH PERFORMANCE FOR VETERINARY SERVICES (OIE PVS) PATHWAY

The OIE PVS Pathway is a global programme for the sustainable improvement of a country's Veterinary Services' compliance with OIE standards on the quality of Veterinary Services. This is an important foundation for improving animal and public health and enhancing compliance with SPS standards, at the national, regional

and international level. The PVS is central to veterinary and public health work at the human-animal interface, a major element of the One Health approach.

THE UNITED NATIONS PLAN OF ACTION ON DISASTER RISK REDUCTION FOR RESILIENCE (UNISDR)

The UNISDR is the focal point in the United Nations system for the coordination of disaster reduction and ensures synergy among the disaster reduction activities of the United Nations system and regional organizations. Through the commitments defined in the UN Plan of Action, 13 UN organizations – FAO, UNDP, UNEP, UNFPA, UN-HABITAT, UNICEF, UNOPS, WFP, WMO, WHO, UNESCO, UNV and the World Bank – have prioritized disaster risk reduction (DRR) within their 2014-2017 strategic work plans.

SENDAI FRAMEWORK FOR DISASTER RISK REDUCTION 2015-2030

The Sendai Framework is a voluntary, non-binding agreement which recognizes that the State has the primary role to reduce disaster risk but that responsibility should be shared with other stakeholders including local government, the private sector and other stakeholders. It aims to “reduce substantially disaster risk and losses in lives, livelihoods and health and in the economic, physical, social, cultural and environmental assets of persons, businesses, collectivities and countries”.

www.unisdr.org/we/coordinate/sendai-framework

COMPREHENSIVE SAFE HOSPITALS FRAMEWORK (WHO)

Health facilities, especially hospitals, are critical assets for communities both routinely and especially in response to emergencies, disasters and other crises. Yet hospitals and health workers are often among the major casualties of emergencies, with the result that health services cannot be provided to affected communities when they are most needed. The Safe Hospital Framework presents a structured approach for actions to strengthen the safety and preparedness of hospitals and health facilities for all types of hazards.

THE GLOBAL HEALTH SECURITY AGENDA (GHTSA)

The GHTSA was launched in February 2014 and is a growing partnership of nearly 50 nations, international organizations, and non-governmental stakeholders to help build countries’ capacity to create a world safe and secure from infectious disease threats and elevate global health security as a national and global priority.

THE STRATEGIC PARTNERSHIP PORTAL (SPP)

The SPP is a Member State mandated information-sharing web portal designed to enhance communication between countries, donors and partners, and WHO with regard to financial and technical support provided to countries. It is a web based, interactive tool that aims to monitor and map all contributions from donors and partners financial, technical and in-kind to facilitate the alignment of efforts in-country and to reveal possibilities for collaboration. The SPP is a one stop portal to facilitate the sharing of information about current and future activities and investments to allow more coherent, coordinated approach and more informed investment decisions.

SPP website: www.who.int/ihr/information_partnerships/en/

THE STRATEGIC FRAMEWORK FOR EMERGENCY PREPAREDNESS

The Strategic Framework for Emergency Preparedness was presented at the high-level meeting on Advancing global health security: from commitments to actions, held in Bali, Indonesia, from 27-29 June 2016. Jointly convened by WHO and the Government of Indonesia, the meeting brought together 250 participants and observers from 52 countries and 28 organizations committed to actively contribute to global health security. A number of side events also took place, notably a World Bank Group meeting on sustainable financing for emergency preparedness, a joint external evaluation (JEE) Alliance meeting on capacities in countries and a meeting on zoonoses convened by the Government of Indonesia.

HIGHLIGHTS FROM THE TECHNICAL TEAMS

JANUARY 2015 — SEPTEMBER 2016

ACKNOWLEDGEMENTS

The support of the financial and technical partners of the Office is crucial to the success of its activities, which are carried out all over the world to help countries to strengthen their public health systems. WHO is very grateful that throughout the years, numerous technical and institutional partners have provided funding support in favour of the activities of the WHO Lyon Office: development of technical publications, guidance, networking and human resources development tools for strengthening core capacities.

Governments and their agencies:

- the Government of Brazil,
- the Government of Canada,
- the Government of France,
- the Government of Germany,
- the Government of Japan,
- the Government of the Netherlands,
- the Government of Russian Federation,
- the Government of United Kingdom,
- the Government of United States,
- the European Union.

French authorities:

- the Lyon Metropolis,
- the Auvergne-Rhône-Alps Region,
- the Rhône Department

Other stakeholders:

- Bill and Melinda Gates Foundation,
- Mérieux Foundation,
- Institut Pasteur

KEY EVENTS

JANUARY 2015 — SEPTEMBER 2016



JANUARY 2015

Launch of Health Security Learning platform

• see page 34

JANUARY 2015

Release of Coordinated surveillance between points of entry and national surveillance systems – Advising principles

• see page 25



APRIL 2015

ICAO-WHO Global Symposium on improving preparedness planning in the aviation sector

• see page 29



JUNE 2015

Inauguration of the WHO Lyon Office new premises in the heart of the Lyon-Gerland Biodistrict, France

• see page 8

JULY 2015

5th PAGNet meeting on Strengthening public health capacities for ports and shipping, Lisbon, Portugal

• see page 32



OCTOBER 2015

eProtect: Ebola virus disease training packages

• see page 35



NOVEMBER 2015

Strengthening health laboratories to minimize potential biological risks – 2 day outbreak simulation exercise, Kazakhstan

• see page 22



DECEMBER 2015-JAN 2016

Release of Laboratory Quality Stepwise Implementation (LQSI) tool in French, Russian and Turkish

• see page 21

KEY EVENTS

JANUARY 2015 — SEPTEMBER 2016

MARCH 2016

High Level **Conference**,
Global Health
Security: Solutions for
strengthening States'
capacities, Lyon, France

• see page 5



MARCH 2016

Technical consultation
on Early Warning and
Response, Lyon France

• see page 22



MARCH, APRIL, MAY 2016

Ebola virus disease
specific **trainings** for
ports, airports and
ground crossings

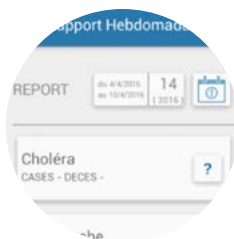
• see page 29



APRIL 2016

Technical consultation
on the Development
of National Health
Laboratories, Lyon,
France

• see page 20



MAY 2016

Release of Argus
WHO application
for transmission of
surveillance data

• see page 25

JULY 2016

Laboratory **simulation**
exercises, Africa

• see page 21



SEPTEMBER 2016

Delivery of Rapid
Response Teams
Training in the WHO
Eastern-Mediterranean
Region

• see page 33



SURVEILLANCE CAPACITIES INCLUDING EARLY WARNING AND EARLY LABORATORY DETECTION



I. LABORATORY STRENGTHENING AND BIORISK MANAGEMENT

Laboratory services are essential to identify and confirm the agents involved in important public health events, including those which may cause public health emergencies of international concern (PHEIC). To meet IHR requirements, each State Party needs access to laboratory services, domestically or internationally.

Rapid access to laboratory services should rely on adequate sample collection and transport systems. Strong laboratory biorisk management measures and laboratory quality systems should ensure that laboratories release results in a safe, secure, timely and reliable manner.

NATIONAL LABORATORY POLICIES AND STRATEGIC PLANS

Many resource-limited countries have weak laboratory systems, and the oversight of laboratories is often fragmented. Additionally, focus on disease-specific programmes, all of which use laboratories, has deflected attention from treating laboratories as an element of the overall health system. In response to these challenges, a Technical Consultation on the Development of National Health Laboratory Policies was held at the World Health Organization (WHO) office in Lyon, France, on 26-28 April 2016. Experts shared experiences and identified strengths, weaknesses, opportunities and threats regarding the development of national laboratory policies and strategic plans, and proposed high-level recommendations to: support resource-limited countries in the development of national laboratory policies and strategic plans, such as the development of a WHO global guidance to develop laboratory policies; and create an accessible repository of information and support countries to mobilize resources and foster collaboration with partners, such as Food and Agriculture Organization (FAO) and the World Organisation for Animal Health (OIE) in this area. The team will initiate implementation of these recommendations in 2016/2017.

LABORATORY QUALITY IMPROVEMENT

The team provided support to laboratory quality improvement, through a strategy mixing development and dissemination of tools for a stepwise implementation of internationally recognized standards, training workshops and provision of External Quality Assessment (EQA or proficiency-testing PT) schemes.

A panel of negative and positive specimens for MERS-CoV and other human coronaviruses was developed and shipped to 96 laboratories worldwide, to measure their diagnostic performance for this emerging disease. The participation rate and participants' satisfaction was excellent, and the majority of participants demonstrated a good ability to detect this virus by PCR. Besides this particular scheme for MERS-CoV, the team continued its long-standing support to the organization of the WHO Microbiology EQA programmes in Africa and the Eastern Mediterranean Region that measure performance of more than 100 reference laboratories two or three times per year for many endemic and epidemic bacterial and viral diseases such as meningitis, cholera, plague or hepatitis.

Participation in an EQA scheme is a mandatory element of any strong laboratory quality management system, notably for laboratories targeting an ISO 15189 accreditation which is the internationally recognized standard for medical laboratories. However many other requirements need to be achieved and to support laboratories compliance with these requirements, the team developed a Laboratory Quality Stepwise Implementation (LQSI) tool

More than 150 National reference laboratories from 120 countries participated in WHO sponsored external quality assessment programmes to measure their performance for the diagnostic of specific epidemic-prone diseases

that provides detailed guidance, templates and checklists to help any laboratory to comply with ISO 15189 (see <https://extranet.who.int/lqsi/>). This tool was widely promoted and disseminated in 2015/2016, through national or regional initiatives in collaboration with WHO Regional offices in Europe, South East Asia, Eastern Mediterranean or Western Pacific Region. The team directly facilitated workshops in Lebanon (November 2015), United Arab Emirates (October 2015) and India (August 2015). In 2015/2016 the Lyon team coordinated translation of the tool in Russian, French, Turkish (all available on WHO website), Spanish and Arabic (under finalization). In addition, technical assistance and mentoring has been provided to selected laboratories, e.g. in Tajikistan, Kyrgyzstan and the Russian Federation through the WHO EURO Better Labs for better health initiative, or in Benin, Mali and Togo thanks to the financial support from French Ministry of Foreign Affairs.

In 2016, the focus has been on the provision of proficiency testing schemes for arboviruses, with the support of the US Centers for Disease Control and Prevention (CDC) and the United States Agency for International Development (USAID). A global meeting was organized in Puerto Rico, USA, on 16-17 February 2016, back to back with a WHO AMRO/PAHO regional meeting of the regional dengue network (RELDA). The concept and process to establish a global EQA scheme for dengue, Chikungunya and Zika viruses was agreed among the participants¹. The proficiency testing panel will be distributed during the last quarter of 2016 to more than 100 arboviruses reference laboratories worldwide.

BIOSAFETY AND BIOSECURITY

Biosafety and biosecurity have been enhanced in many countries, notably in the South East Asia Region where the team coordinated an ambitious project funded by the European Union. Four countries (Bangladesh, Indonesia, Myanmar and Nepal) received significant funding that helped to develop national biosafety policies, manuals and guidelines, to organize training and workshops, or provide essential equipment. A regional biosafety workshop was also organized in Thailand on 29 February to 4 March 2016 to review the regional and national achievements and challenges in terms of biosafety and biosecurity and to provide a hands-on training on biosafety that is to be replicable by the participants in their home settings for the national audience. This workshop was successfully conducted, with a total of 24 participants from all but one Member State in the WHO South-East Asia Region, at the Thai National Institute of Health in Bangkok with prominent biosafety trainers from Public Health England. Technical assistance was also provided to the Pakistan health authorities, notably through the development of biosafety policies and regulations through series of assessment missions and national workshops between June 2015 and June 2016. In

Africa, the team supported the development of a WHO "Assessment tool for key processes associated with the design, construction, operation, maintenance and regulation of BSL-3 facilities in the WHO African Region". This tool has been piloted in Uganda, Ghana and Kenya high containment laboratories and a survey is now being conducted with other countries with such facilities to identify common challenges and guide WHO's and partners future support in this area.

A particular biosafety measure to protect laboratory workers but also the general public and transport sector workers is to safely pack and transport infectious substances such biological specimens, or virus and bacteria isolates that are exchanged between laboratories within and across countries. An updated version of the *WHO Guidance on Regulations for the Transport of Infectious Substances* (http://www.who.int/ihr/publications/who_hse_ihr_2015.2/en/) and related training materials was therefore published in January 2015 and has been translated into French, Russian and Spanish. Laboratory staff from resource-limited laboratories have been trained and certified for the safe shipment of Infectious Substances in many instances (Fiji, February 2015; Egypt, May 2015; India, August 2015; Cambodia, September 2015; Armenia, November 2015; Uganda, 07-11 December 2015), and the pool of WHO trainers expanded through a Training of Trainers provided by IATA in Geneva on 20-24 April 2015.

LABORATORY SIMULATION EXERCISES

Simulation exercises are a useful means of testing country preparedness to respond to emergency situations, notably public health events such as disease outbreaks. WHO is proposing to support countries in conducting simulation exercises as part of the new IHR monitoring and evaluation framework. Laboratory capacities are regularly addressed during outbreak response simulation exercises, however often on a very superficial basis. Although laboratory testing capacity and quality within the laboratory are well assessed with external quality assessment or proficiency testing programmes, the pre- and post-analytical phases (e.g. specimen collection and transport, data interpretation and reporting) are often poorly assessed, despite of the fact that these steps are crucial for a rapid initial detection and further monitoring of any outbreak. The team has therefore initiated a laboratory simulation exercise project, in coordination with the GCR preparedness team in Geneva with financial support from USAID that aims at developing scenarios and methodology to plan, conduct and evaluate laboratory simulation exercises. A first scoping mission in Ghana (4-8 July 2016) successfully identified needs and interest from the health authorities to test the specimen collection and transport mechanisms

1. For media coverage of this event visit: www.flickr.com/photos/pahowho/albums/72157664403119480
www.youtube.com/watch?v=pze5MyT_KT8&index=1&list=PL6hS8Moik7ku3DbBOSoK1p3_E_B_JBRAW

around yellow fever suspected cases. As a result, a table top exercise was conducted successfully in Ghana on 14 September 2016, identifying some strengths but also gaps that should be addressed in priority by the health authorities. A similar scoping mission was organized from 20-23 September 2016 in Côte d'Ivoire. Other regional offices have expressed interest in this programme, that could therefore be extended to other countries and regions in 2017 should funding be identified.

In addition to the educational aspect of such exercise, this project will also help refine needs that can barely be assessed during a static assessment mission, improve the national action planning and better orient technical assistance.

WHO-EUROPEAN UNION PARTNERSHIP FOR “STRENGTHENING HEALTH LABORATORIES TO MINIMIZE POTENTIAL BIOLOGICAL RISKS”

A 6 USD million project, funded by European Commission DG Development and Cooperation (EU DEVCO), has been implemented since January 2014, however the implementation rate has accelerated significantly since 2015. Global, regional and national activities are addressed, yet the project pays particular attention to Middle-East and European countries through a combination of regional and in-country activities. Beneficiaries of in-country activities during 2015 of the project were: Afghanistan, Armenia, Egypt, Iraq, Kyrgyzstan, Morocco, Pakistan, Republic of Moldova, Sudan, Tajikistan, Tunisia, and Uzbekistan. Other countries were supported through regional or sub-regional activities. This project is coordinated by the WHO laboratory team in Lyon, and implemented jointly by HQ, regional and country offices. Key regional activities have been achieved, such as the first intercountry meeting of directors of public health laboratories in the Eastern Mediterranean Region since 2004 that was attended by 33 participants from 17 Member States¹. An outbreak simulation exercise was conducted in November 2015 in Kazakhstan. This two-day table top exercise was designed to help Member States critically review and update their national plans for responding to the detection of imported wild polioviruses and vaccine-derived polioviruses, including use of the International Health Regulations requirements. As part of the WHO/EURO “Better labs for better health initiative”² that is supported significantly by this EU grant, a National Laboratory Policy was developed and endorsed in Tajikistan from

February to September 2015. Progress has been made in the development of national laboratory policies and/or strategic plans in Kyrgyzstan, Moldova, and Uzbekistan, in 2015, while a National Policy was developed and endorsed by the Minister of Health and Vice-President of Sudan from March to November 2015. This project also funded several activities mentioned above such as the WHO EMRO Microbiology EQA Programme, trainings on the safe transport of infectious substances or antimicrobial resistance assessment missions.

ANTIMICROBIAL RESISTANCE

The team is supporting the implementation of the WHO Global Action Plan on antimicrobial resistance (AMR) adopted by the World Health Assembly in May 2015. One of the objectives is to improve global AMR surveillance through the Global AMR Surveillance System (GLASS) that relies significantly on laboratory data. However, bacteriology capacity has been dramatically neglected these past decades, and many countries do not have capacity and training to perform antibiotic susceptibility testing according to the internationally recognized standards, such as CLSI and EUCAST³ guidelines.

The team has therefore worked closely with AMR secretariat to provide support to resource-limited laboratories through procurement and distribution of Clinical Laboratory Standards Institute (CLSI⁴) standard operating procedures for performing and interpreting the results of antibiotic susceptibility tests (ASTs) and the production of five short training videos demonstrating the European Committee on Antimicrobial Susceptibility Testing (EUCAST) method for performing an AST. These videos can be found at www.eucast.org/videos_from_eucast/ and will be formally released during the World Antibiotic Awareness week in November 2016. In addition, the team directly participated in three missions to review the AMR surveillance systems, conduct on-site visits of selected laboratories and make recommendations on ways to optimize the interactions between AMR Surveillance stakeholders to strengthen surveillance and laboratory capacities, in Pakistan (21-29 November 2015), Sudan (14-20 May), Oman (27 May to 03 June 2016). Performing antibiotic susceptibility testing requires first the bacteria identification. Therefore increasing capacity to detect antibiotic resistance will not only improve patient care and antimicrobial resistance surveillance to orient treatment guidelines ; It is also a very good stimulus to strengthen the overall bacteriology laboratory capacity and improve the detection of epidemic-prone diseases of bacterial origin.

1. The meeting summary is available at: www.emro.who.int/fr/laboratories/lab-events/phl-directors-meeting-oman-2014.html

2. The “Better Labs for Better Health” initiative to strengthen laboratory systems in the WHO European Region. Activity report. January 2013-December 2015. http://www.euro.who.int/_data/assets/pdf_file/0020/318260/Better-Labs-Better-Health-initiative-activity-report.pdf

3. EUCAST: European Committee on Antimicrobial Susceptibility Testing. Breakpoint tables for interpretation of MICs and zone diameters. Version 6.0, 2016. <http://www.eucast.org> ; CLSI: CLSI M100-S26:2016: Performance Standards for Antimicrobial Susceptibility Testing; 26th edition.

4. CLSI: CLSI M100-S26:2016: Performance Standards for Antimicrobial Susceptibility Testing; 26th edition. <http://clsi.org/>

COORDINATION AND ADVOCACY WITH PARTNERS AND STAKEHOLDERS

**Lyon Office Laboratory team:
the largest WHO team providing
transversal support to strengthening
laboratory policies, capacity, safety
and quality**

The team is the largest WHO team providing cross cutting support to laboratory capacity strengthening. As such it has opportunities to provide authoritative advice and advocacy messages to several key international partners in the laboratory area, for better international coordination and harmonization.

As such, the team participated in the meetings of the UN Committee of Experts on the Transport of Dangerous Goods (December 2015, July 2016) that issues the United Nations recommendations on the transport of dangerous goods, and in the ICAO meeting of the Dangerous Goods Panel (October 2015) that updates ICAO Technical Instructions for Safe Transport of Dangerous Goods by Air.

The team is working closely with Food and Agriculture Organization of the United Nations (FAO) and OIE to implement the tripartite agenda item focusing on the safe transport of infectious substances. The three organizations have reached out to key partners such as ICAO, IATA, but also Airports Council International, International Federation of Air Line Pilots' Association, International Federation of Freight Forwarders Associations, International Maritime Organization, Intergovernmental Organisation for International Carriage by Rail and Universal Postal Union, seeking for an increased collaboration to further ensure the safe and prompt transfer of infectious substances and biological materials. WHO invited them to nominate a focal point to facilitate interaction and collaboration, with the aim to organize a global consultation in the coming years.

Collaboration with FAO and OIE is also in effect for many other aspects, such as the development of laboratory policies, the organization of laboratory simulation exercises at the human-animal interface for which FAO expressed interest, or the implementation of a One-health project in Pakistan jointly with OIE, with a planned joint assessment of medical/public health and veterinary laboratories for zoonotic diseases capacity.

The Laboratory Quality Stepwise Implementation (LQSI) tool was also introduced to the veterinary laboratory community at the occasion of the Regional Seminar for OIE National Focal Points for Veterinary Laboratories

(5-7 April 2016 in Jeju, Republic of Korea), and further collaboration is expected in this area to harmonize our support to the stepwise compliance with international quality standards.

The team is also collaborating closely with the International Organization for standardization (ISO) and particularly its technical committee 212 on clinical laboratory testing and in vitro diagnostic test systems. The team has participated in the ISO meeting in November 2015 in Belgium, and provides inputs on a regular basis to the on-going development of the new ISO 35001 standard on Biorisk management for laboratories and other related organizations, as well as the revision of ISO 15190 (Medical laboratories -- Requirements for safety) standard. The WHO laboratory quality improvement activities have also been presented to a large international group of national accreditation bodies on the occasion of the annual meeting of the International Laboratory Accreditation Cooperation (ILAC) in Milan, Italy, in October 2015.

The team also met in June 2016 with US biosafety experts notably from US National Institutes of Health who are engaged in the revision of the US Biosafety in Microbiological and Biomedical Laboratories (BMBL) manual. These coordination activities are of critical importance since the team has started the revision of the WHO Laboratory Biosafety Manual, with 2 technical experts meeting on 28-30 September 2015 and 19-21 July 2016 and another one to be held on 19-21 October 2016. These meetings, along with the recruitment of a professional writer specialized in biosafety guidelines, have accelerated the development of the 4th edition of this reference international publication.

2. SUPPORT TO NATIONAL SURVEILLANCE

The IHR require the rapid detection of public health risks, as well as prompt risk assessment, notification, and response. To this end, Member States require efficient public health surveillance systems with an early warning function. To ensure early detection of public health emergencies and rapid response, a multisectoral approach is needed. The contribution of each sector and sharing mechanisms must be promoted, and supporting tools to assess and strengthen surveillance functions must be developed or updated. To ensure its sustainability, the surveillance function must be integrated and addressed in national strategic plans, in support of health systems development.

The team responsible for Support to National Surveillance focusses on providing guidance and support to the most vulnerable countries for strengthening their surveillance systems. Its activities are developed according to the priorities identified by the countries, in support to Regional strategies, and contribute to improved national preparedness for potential future disease outbreaks.

The activities of the team aim to contribute to WHO's leadership in developing concepts for surveillance that are recognized and adopted by international partners, ensure that public health surveillance is well integrated within the national health systems, encourage collaboration with non-health sectors that can provide health-related information, facilitate collection and transmission of surveillance information at country level, formalize mechanisms to prevent importation and exportation of disease through strengthening of collaboration between the national health surveillance systems and points of entry, develop strategies for strengthening human resources for surveillance, and provide technical support at the request of Member States.

Strengthening the Early Warning and Response (EWAR) function as a major component of the national surveillance system is the overall objective of the activities led by the team. The work is articulated around four main streams:

PROVIDING SUPPORT FOR THE IMPLEMENTATION/STRENGTHENING OF NATIONAL CAPACITIES FOR EARLY WARNING AND RESPONSE (EWAR)

The specific objective of this area of work is to help the most vulnerable countries in developing a national plan of action to strengthen national surveillance, with a focus on EWAR, and to support its implementation together with partners.

The team facilitates a group of experts representing agencies and institutions active in the field of surveillance, to develop guidance and tools on EWAR and Event-Based Surveillance (EBS). The last face-to-face technical consultation took place in March 2016, in Lyon, France. The guide previously developed with the

group of experts "*Early detection, assessment and response to acute public health events – Implementation of Early Warning and Response with a focus on Event-Based Surveillance*"¹ was updated, and a roadmap was established. The guide has been translated into French, Russian, and Spanish.

The consultation gathered 30 high level international and national experts, and focussed on the alignment of concepts used for detection of and response to humanitarian emergencies and communicable outbreaks, as required by the current WHO reform. In accordance with the roadmap established during the consultation, the team is currently developing an EWAR implementation toolkit that comprises an assessment tool and guidance for developing a plan of action and national standard operating procedures (SOPs) for public health surveillance, and training modules. The assessment tool has been pilot tested in the Gambia, India, Lebanon and Togo, and is currently being finalized.

1. www.who.int/ihr/publications/WHO_HSE_GCR_LYO_2014.4/en/

STRENGTHENING COORDINATION OF SURVEILLANCE BETWEEN POINTS OF ENTRY (POE) AND NATIONAL HEALTH SURVEILLANCE SYSTEMS (NHSS)

The specific objective in this area is to provide guidance and support for the full integration of health units located at points of entry (PoE) within the national public health surveillance systems. In collaboration with the points of entry team, and with the support of a group of experts, a guide entitled *Coordinated public health surveillance between points of entry and national health surveillance systems – Advising principles*¹, has been developed and is available in English, French and Russian.

To complement the guide, the team has developed an assessment tool, Surveillance at Points of entry- implementation toolkit: Part 1. This tool has been pilot tested in Kazakhstan and Turkmenistan, in the framework of a project involving the five Central Asian countries. From 25-27 November 2015, a consultation with the five countries was held in Dushanbe, Tajikistan. Through this meeting, practices and needs regarding coordination of surveillance between PoE and NHSS in Central Asia countries, tools and mechanisms for multisectoral coordination of surveillance between PoE and NHSS were identified.

The team is currently working on the development of related training modules and guidance for developing a plan of action and national SOPs.

FACILITATING TRANSMISSION OF SURVEILLANCE DATA WITHIN THE HEALTH SYSTEM

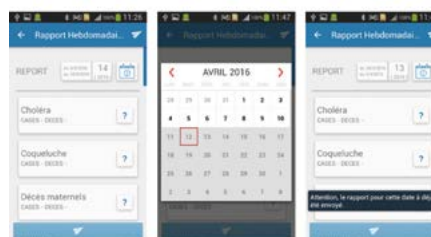
The team has developed an electronic application, Argus, which facilitates collection, transmission and analysis of national public health surveillance data, in respect of Integrated Disease Surveillance and Response (IDSR), the WHO Regional Office for Africa surveillance strategy. Weekly, daily or monthly data and alerts can be managed by Argus.

Argus is composed of three main components: 1) an SMS application using an Android Interface that permits transmission of data, tracing of reports sent, and reception of alerts if abnormal events; 2) a server for the reception of data; and 3) a web platform (administration platform and dashboard) for the setting-up of the solution, the management of reports received; the analysis of data; and the production of reports.

Lyon Office National Surveillance team: developed a WHO unique user-friendly Android application accessible through Internet and facilitating transmission of surveillance data within the health system

In 2016, Argus has been tested in the Central African Republic through collaboration with Médecins sans Frontières (MSF), and was pilot tested in two regions of Togo. First results of the pilot evaluation indicate that the application is well accepted by surveillance staff, and that quality of data has dramatically improved.

The WHO Regional Office for Africa has agreed to include Argus in its e-surveillance project, and discussions are underway with the IT support team at WHO headquarters on developing Argus as a potential WHO corporate application.



1. www.who.int/ihr/publications/WHO_HSE_GCR_LYO_2014.4/en/

STRENGTHENING HUMAN RESOURCES FOR SURVEILLANCE

The support to developing surveillance staff competencies at country level is a long-standing focus of the team notably through the development of training modules for staff working in peripheral health facilities. In the African region, training modules have been developed in respect of IDSR, the regional strategy for surveillance.

National surveillance and response capacities require skilled and motivated staff at all levels of the health system. Countries need guidance to set up workforce development plans: tools, training packages and guidance on strategic planning. Managing the high turn-over of staff in most vulnerable countries is a major challenge.

To respond to this requirement, SNS has started to develop guidance for supporting countries in defining strategies for the strengthening of human surveillance for surveillance and response. As a first step, the team has developed a tool for the assessment of training needs, requirements, and capacities for surveillance that has been pilot-tested in Malawi. A document that will guide countries in the development of a national plan of action for training in surveillance is under development and will be pilot-tested in Malawi in October 2016.

These plans of action will guide the support provided by partners, and ensure country ownership and leadership.

This project is being carried out with the collaboration of international institutions developing training for epidemiologists such as the US Centers for Disease Control and Prevention (CDC) or the European Centre for Disease Prevention and Control (ECDC).

As part of its partnership approach, the team contributes to the advisory board of the Training Programs in Epidemiology and Public Health Interventions Network (TEPHINET) created in 1997, a professional network of more than field epidemiology training programmes (FETPs) in 90 countries around the world. TEPHINET aims to strengthen international public health capacity by training field epidemiologists through an applied apprenticeship programme. Trainees of FETPs master a set of core competencies that are vital to the practice of public health, while providing a valuable public health service to their countries and regions.

PUBLIC HEALTH PROTECTION FOR TRAVEL, TOURISM AND TRANSPORT AND STRENGTHENING CAPACITIES AT PORTS, AIRPORTS AND GROUND CROSSINGS



Safer travel, tourism and transport : The IHR (2005) call for intergovernmental organizations and international bodies, such as travel, tourism and transport community, to cooperate and coordinate activities for enhancing capacity building in global public health and on countries to maintain effective public health measures and response capacity at designated ports, airports and ground crossings.

WHO AND ITS INTERSECTORAL PARTNERS: WORKING TOGETHER TO STRENGTHEN HEALTH SECURITY

The 58th World Health Assembly resolution, while adopting the revised IHR (2005) requested WHO Director-General “...to inform other competent intergovernmental organizations or international bodies of adoption of the *International Health Regulations (2005)* and, as appropriate, to cooperate with them in the updating of their norms and standards and to coordinate with them the activities of WHO under the *International Health Regulations (2005)* with a view to ensuring application of adequate measures for the protection of public health and strengthening of the global public health response to the international spread of disease.”

Effective implementation of the IHR (2005) requires close collaboration between all sectors that are potentially concerned by public health risks: animal health, transport, tourism, travel, customs, and defence. Within this context, WHO works actively with international institutions such as the International Organisation for Animal Health (OIE), the United Nations Food and Agriculture Organization (FAO), the International Civil Aviation Organization (ICAO), the International Air Transport Association (IATA), the International Maritime Organization (IMO), the World Customs Organization (WCO) and the International Atomic Energy Agency (IAEA). WHO promotes harmonized and coordinated practices for strengthening international public health

capacities for responding to emergencies, related to travel, tourism and transport also focused on providing advice for setting standards and best practices for international shipping and aviation, for example, in close collaboration with other UN Agencies and industry associations.

Further to its analysis of the functioning of the IHR during the West Africa Ebola outbreak, the IHR Review Committee considered the need for WHO and States Parties to continue to strengthen cooperation with organizations, ministries and the travel industry to ensure that during crises essential travel continues, and that implementation of WHO temporary recommendations for emergencies are consistent with all relevant IHR obligations, including those related to airlines and international carriers.

This cooperation results in the implementation of common technical projects developed by the WHO Lyon Office teams. In recent years the European Commission has joined the network of partners of the Office, and provided financial support to far-reaching laboratory strengthening activities at the human-animal interface, and in the area of strengthening public health capacities for prevention, surveillance and response at ports, airports and ground crossings in geographical zones around the work that are prone to major health risks.

SUPPORTING COUNTRIES TO STRENGTHEN CAPACITIES FOR SURVEILLANCE AND CONTAINMENT OF HEALTH RISKS AT PORTS, AIRPORTS AND GROUND CROSSINGS

The Ports, Airports and Ground Crossings team is unique across WHO and is mandated to provide guidance and support to countries in the area of travel, transport and tourism identified as the capacity that is the least developed among IHR States Parties who increasingly expect strong normative and technical support from WHO.

Because of its cross sectoral nature, the team has a strong crosscutting approach in collaborating with other teams across the WHE programme, the six WHO regions and the many institutions, UN organizations and partners in the travel and transport area. The team also provides technical expertise to the IHR secretariat on travel related matters and associated measures during health events.

The team works jointly with the Learning Solutions and Training Support Team, also located at the Lyon Office, to develop learning and training materials that target health professionals at points of entry and will be subsequently rolled out by national authorities to the countries' designated points of entry.

Since 2014 the team has developed four e-learning programmes related to points of entry¹. These are available in six official WHO languages. Since the launching of the learning material, around 800 PoE professionals globally have completed the e-learning modules.

Specific learning programmes have also been developed and made available to assist countries to meet the ship sanitation certification requirements. In 2015, 171 participants from 15 countries² earned ship sanitation learning certificates; a total of 391 certificates were issued since the launch of the course in January 2014. This activity helped to increase the number of ports assigned by State Parties to issue Ship Sanitation Certificates, that amounts to 1,961 ports listed on the WHO website in 105 countries at all Regions as of 05 August 2016 (see Table page 34).

POINTS OF ENTRY TEAM: A STRONG FOCUS ON INTERSECTORAL COLLABORATION AND PARTNERSHIP IN THE TRAVEL AND TRANSPORT AREA FOR IMPROVED HEALTH SECURITY

The implementation of public health capacities at PoE is not merely determined by the health sector but is also dependant on harmonization of practices and collaboration with different stakeholders, where international health and safety related standards and requirements are under governance of other international organisations. It is thus important for PoE health authority to work in collaboration with other sectors.

To this end, 13 regional, sub-regional and country training workshops related to public health emergency response (e.g. Ebola virus disease), sanitation and event management at points of entry were organized and delivered in collaboration with the WHO regional offices, with the participation of 73 countries and in collaboration with regional and country offices, and relevant international organizations and national authorities.

COLLABORATION WITH INTERNATIONAL TRAVEL AND TRANSPORT INSTITUTIONS

Several joint activities with the International Civil Aviation Organization (ICAO) have taken place that are key to convey aligned messages and foster standard practices across the health and transport sectors.

A global symposium jointly organized by ICAO-WHO, Montreal Canada, 28-30 April, 2015 brought together 113 participants from 25 countries and five international organizations (International Civil Aviation Organization (ICAO), World Health Organization, United Nations World Tourism Organization (UNWTO), International Air Transport Association (IATA) and Airports Council International (ACI)). It aimed at improving preparedness planning in countries in the aviation sector for public health emergencies, or potential emergencies that could arise from communicable disease outbreaks such as Ebola virus disease.

1. <https://extranet.who.int/hslp/training/?lang=en>

- Joint ICAO/WHO 6th Meeting of the CAPSCA-Africa Project and Training of CAPSCA Technical Advisors, Johannesburg, South Africa, 12-16 October 2015.
- International Civil Aviation Organization EUROPE and WHO (HQ and EURO), Paris, France, 11-12 Feb, 2016. The objective was to initiate discussions for developing a joint training programme for international experts (civil aviation and public health sector) to assist countries in assessing and developing core capacities to strengthen response in the face of public health emergencies.
- Collaborative Arrangement for the Prevention and Management of Public Health Events in Civil Aviation (CAPSCA) Middle East Project, CAPSCA Workshop and CAPSCA Training for Technical Advisors, , Cairo, Egypt, 29 February-3 March 2016.
- Site visit to Atlanta International Airport to support ICAO-CAPSCA assistance and meeting to identify potential areas for multisectoral collaboration within the ICAO-CAPSCA framework with CDC, Federal Aviation Administration (FAA) and ICAO, especially for training the roster of experts for airport assistance visits regarding public health emergency preparedness.

The Ports, Airports and Ground Crossings team in Lyon: leads WHO collaborative efforts to provide guidance and technical support relevant to the IHR (2005) health requirements in relation to international travel, tourism and transport

A series of trainings on prevention and management of public health events in civil aviation sector for civil aviation and public health personnel were organized in the context of ICAO/WHO Aviation EBOLA Action Plan implementation project activities:

- ICAO-WHO Training on the Prevention and Management of Public Health Events in the Civil Aviation Sector for Civil Aviation and Public Health Personnel - Nairobi, Kenya, 13-17 April 2015. The training comprised 77 participants from 12 countries (Angola, Botswana, Burkina Faso, Burundi, Comoros, Kenya, Namibia, Seychelles, South Africa, Tanzania, Uganda and Zambia) and some regional and international organizations (Civil Aviation and Oversight Committee (CASOA), WHO, CAPSCA/TA and ICAO) attended the training.
 - Training on the Prevention and Management of Public Health Emergencies in the Aviation Sector
- Dakar, Senegal, 9-13 March 2015. The meeting brought together 82 participants from 13 countries (Benin, Cameroon, Côte d'Ivoire, Gabon, Guinea, Kenya, Liberia, Mali, Mauritania, Senegal, Sierra Leone, Togo and Uganda) and two international organizations (African Civil Aviation Commission (AFCAC) and the Agency for Aerial Navigation Safety in Africa and Madagascar (ASECNA)).
- Complementary joint international/regional initiatives to facilitate harmonization of standards and practice in response to public health emergency at PoE include:
- Joint WHO-EU SHIPSAN ACT, European training course on International Health Regulations - Ship Sanitation Certificates, 7-13 June, 2015, Ljubljana Slovenia. Participating countries: Belgium, Bulgaria, Croatia, Cyprus, Estonia, Finland, Germany, Greece, Iceland, Ireland, Latvia, Lithuania, Malta, Netherlands, Norway, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, United Kingdom, Hungary, Serbia, Turkey, Montenegro, Albania and Israel.
 - Closed Consultation Meeting for African Tourism Ministers, 30 January 2015, United Nations World Tourism Organization (UNWTO) Headquarters, Madrid Spain.
 - EU AIRSAN final meeting - Coordinated action in the aviation sector to control public health threats, 10 - 11 Sep 2015, Berlin, Germany.

WHO-EUROPEAN UNION PARTNERSHIP FOR “STRENGTHENING HEALTH SECURITY AT PORTS, AIRPORTS AND GROUND CROSSINGS”

From July 2013 to November 2015, the European Commission, EuropeAid Development and Co-operation Office (EU DEVCO) provided funding support to the project, “*Strengthening Health Security at Ports, Airports and Ground crossings*”. The objectives were to:

- foster collaboration, information and knowledge sharing including rapid detection and coordinated response for events with potential impact for international travel and traffic, through multisectoral regional and global networks (PAGNET, Points of Entry database tools)
- contribute to the development of guidance, appropriate tools, methodologies to support points of entry area
- support the development of routine capacities at PoE under the IHR framework to keep ports, airports and ground crossings as well as conveyances free of source of infection or contamination, including vectors and reservoirs, and
- support health surveillance, event management and public health emergency preparedness and response in relation to travel and transport

In 2015 within the context of Ebola virus disease preparedness, the Ports, Airports and Ground Crossings team delivered four sub-regional workshops/meetings (fully or partially financed by EU- DEVCO) aiming at supporting countries to develop public health contingency plans at designated PoEs, and standard operating procedures (SOPs) on the detection, notification, investigation of suspects and referral of ill passengers and adoption of health measures at PoE.

- **16-18 March, 2015, Tunis, Tunisia.**
Participating countries: Djibouti, Lebanon, Libya, Morocco, Somalia, Tunisia
- **28-30 March, 2015, Amman, Jordan.**
Participating countries: Egypt, Jordan, Palestine, Sudan
- **6-8 April 2015, Muscat, Oman.**
Participating countries: Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, United Arab Emirates
- **1-3 May, 2015, Islamabad, Pakistan.**
Participating countries: Iraq, Islamic Republic of Iran, Pakistan

In addition, EU-DEVCO supported three additional meetings on strengthening health capacities and on vector surveillance at points of entry:

- Supporting participation of the public health sectors in the International Civil Aviation Organization
- Collaborative Arrangement for the Prevention and Management of Public Health Event in Civil Aviation (CAPSCA) EURO regional meeting, Amsterdam, Netherlands, 23-26 March, 2015, with 13 representatives from Albania, Armenia, Bosnia & Herzegovina, Georgia, Kazakhstan, Kyrgyzstan, Macedonia, Montenegro, Moldova, Serbia, Tajikistan, Turkmenistan, Ukraine.
- WHO informal consultation meeting for the Handbook on Vector Surveillance and Control at Ports, Airports and Ground crossings, Lyon, France, 24-25 March 2015, with 13 representatives from Brazil, China, France, Germany, India, Mauritius, Morocco, Switzerland, Saudi Arabia.

IMPROVING VECTOR SURVEILLANCE AND CONTROL CAPACITIES AT POINTS OF ENTRY GLOBALLY THROUGH THE DEVELOPMENT OF A WEB-BASED NETWORKING TOOL

Up to 60% of the world's population is at risk of infectious vector-borne diseases (such as malaria, dengue, chikungunya), with more than 500 million reported cases a year. Fast-growing international travel and transportation plays an important role in expediting the spread of vectors and vector-borne diseases all over the world; as such, vector surveillance and control at points of entry is highlighted as a priority in the IHR (2005). Despite efforts made in countries, the present lack of capacity in this area is a major limiting factor to the achievement of IHR implementation in many countries.

To assist countries to strengthen vector surveillance and control capacity, the development of a web-based global networking tool supported by WHO Global Capacities, Alert and Response Department aims to build a sustainable network for learning, remote-lab support, global database for vector entomology and ecology, information sharing, knowledge and skill delivering amongst State Parties. This endeavour will also involve the WHO Regional Offices and State Parties. Although the tool developed will be used globally, it will be piloted initially in African and central Asian countries.

The project comprises the development of global networking and vector identification tools with the following activities:

- Initiation meeting hosted by WHO, for agencies and stakeholders to develop the networking tool: design and layout, site configuration, content and analytical tools.
- Development of a global platform on vectors found at Points of Entry - mosquitoes, rats, fleas and ticks in Asia and African Regions including procurement, equipment and software.
- Hiring of programmers and development of the platform.
- Pilot phase and Global application (two selected countries): technical meetings, training workshops, manual development, IT support and equipment.

The global platform for vector identification and networking tools will be developed and piloted in four sites.

The Russian Federation is providing funding support to this project and under the scope of the project funded the informal consultation meeting on a global platform for Ports of Entry (PoE) vector identification and networking, held in Switzerland on 22-24 June 2016. Participants included experts from China, Germany, the Russian Federation, Switzerland United Kingdom, United States.

PORTS, AIRPORTS AND GROUND CROSSING INTERNATIONAL NETWORK - PAGNET

PAGNet¹ was developed by the points of entry team and is a web-based network that brings together public health officials in relation to international travel and transport and key partners to share information public health activities at ports, airports and ground crossings including preparedness for and response to health emergencies affecting international travel and transport.

The team continues to facilitate the functioning of this network, which brings together 480 members/public health professionals from 75 countries across the six WHO regions. PAGnet aims to contribute to protecting the health of populations and the prevention, detection and control of international spread of disease and its agents through international travel and transport. Its specific objectives are to:

- tap technical expertise of partners and achieve synergy regarding public health activities at ports, airports and ground crossings and related to international travel and transport;
- promote harmonized technical guidance and instruments for global public health capacity building;
- improve specific capacities to meet the IHR (2005) requirements and facilitate IHR implementation at PAG;
- coordinate planning for and facilitate sharing of experience related to response to public health emergencies of international concern; and
- facilitate international, intersectoral collaboration to advance scientific knowledge in the field of public health and international travel and transport.

PAGNet has been instrumental in facilitating information sharing during public health emergencies and in promoting best practice for implementation of adequate recommended measures to reduce unnecessary barriers to travel and transportation.

The 5th PAGNet meeting: “*Strengthening public health capacities for ports and shipping*”, was convened by WHO Secretariat in Lisbon, Portugal, 7-9 July 2015, with 26 representatives from Brazil, Canada, China, Finland, Georgia, Germany, Gibraltar, Ireland, The Maldives, Morocco, The Netherlands, New Zealand, Spain, Sweden (ECDC), Switzerland (ICAO CAPSCA EUROPE), Tunisia, Turkey, Ukraine, United Kingdom. The meeting primarily focused on fostering collaboration, information and knowledge sharing, on practice of prevention, detection and management of public health risks and events at ports and on ships, and drawing upon experience and lessons learnt from the Ebola outbreak in West Africa.

SUPPORT FOR IMPLEMENTATION OF SHIP INSPECTION AND ISSUANCE OF SHIP SANITATION CERTIFICATES

800 port health specialists trained on the required IHR (2005) core capacities

1,961 ports assigned by 105 States Parties to issue ship sanitation certificates

The support provided by WHO helped to increase the numbers of ports assigned by States Parties to inspect ships and issue “*Ship Sanitation Certificates*” under the IHR framework, with a total of 1, 961 ports assigned by 105 States Parties that are authorized to issue the Ship Sanitation Control Certificate (SSCC), Ship Sanitation Control Exemption Certificate (SSCEC) and Extension of the Ship Sanitation Certificate.

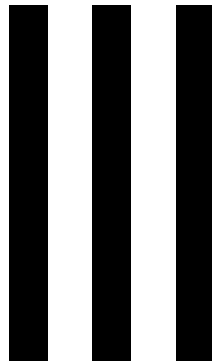
PORTS AUTHORIZED TO ISSUE SHIP SANITATION CONTROL CERTIFICATES, SHIP SANITATION CONTROL EXEMPTION CERTIFICATE AND EXTENSION OF THE SHIP SANITATION CERTIFICATE:

Breakdown by WHO region

Region	State Parties	SSCC	SSCEC	Extension
AFRO	8	24	28	27
AMRO	28	452	459	472
EMRO	13	78	94	78
EURO	33	599	677	719
SEARO	6	73	73	77
WPRO	17	443	486	393

1. www.who.int/ihr/ports_airports/pagnet/en/

SUPPORT WORKFORCE DEVELOPMENT ON HEALTH SECURITY AND IHR IMPLEMENTATION



LEARNING SOLUTIONS AND TRAINING SUPPORT

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 (2005). Through the revised IHR, it is requested that all Member States have the capacity to detect and report events that may constitute a potential public health emergency of international concern. Having sufficient human resources is key to achieving this goal.

STRENGTHENING HEALTH SECURITY BY IMPLEMENTING THE IHR: LEARNING AND ENGAGEMENT

The team works in collaboration with many technical units across WHO on the design, development, implementation and evaluation of targeted learning programmes, activities and materials to assist regions and countries to build the minimum capacities called for in the IHR (2005).

The Learning Solutions and Training Support team: the only WHO team with specific expertise in designing tailored adult learning programmes in support to the WHO HQ and regional health security technical teams

THE HEALTH SECURITY LEARNING PLATFORM

In today's connected world, health security is a global issue. Through the International Health Regulations (2005), WHO keeps countries informed about public health risks, and works with partners to help countries build capacity to detect, report and respond to public health events.

The Health Security Learning Platform (HSLP)¹, launched in 2015 by the Learning Solutions and Training Support team, is a virtual learning environment set-up to assist Member States in preparing upcoming generations of public health leaders and professionals. The learning platform supports the learning needs of organizations and individuals with responsibilities in public health and other related sectors responsible for strengthening health security by implementing the IHR 2005 through a wide range of learning programs, activities and materials.

All learning packages and tools are available on the Health Security Learning Platform and overall in 2015, the HSLP welcomed 1,400 visitors and participants.

1. <https://extranet.who.int/hslp/training/>

The HSLP is built to support three main functions:

1. Learn: geared to public health professionals, this function supports on-line self-learning modules. Currently, HSLP “Learn” offers access the following set of courses:

- introduction to the IHR (2005), that targets national officers and other professionals including the IHR national focal point
- a tutorial for notification assessment under the IHR (2005) that targets the staff of national IHR focal points
- ship sanitation inspection and issuance of ship sanitation certificate learning programme that targets ship inspectors working at ports that are authorized to issue ship sanitation certificates. The course adopted a blended learning approach, including an on-line course, that can be followed by a face-to-face course and skills-drills exercise. Since the launch of the course’s second edition (2014), 433 certificates were delivered for completion of the on-line course. This programme is available in 7 languages (the 6 official UN languages + Portuguese).
- e-Protect, a basic occupational health and safety pre-deployment on line training that targets WHO staff and consultants going to West Africa in the context of the Ebola virus outbreak. More than 1000 learning certificates were issued for the training in Occupational Health pre-deployment to support Ebola virus disease Response in countries. The course, accessible in English and French, offers a basic introduction to staying safe in countries affected by the Ebola virus disease.
- Ebola management at points of entry programme that targets national IHR focal points, points of entry public health authorities, points of entry operators, conveyance operators, crew members and other stakeholders involved in the management of public health events. In 2015, over 200 participants accessed the e-learning application, Ebola Event Management at Points of Entry (available in English, French and Portuguese). Since the launch of the application in September 2014, 338 experts have participated in this course.
- National RRT Training Package, a structured comprehensive collection of training resources and tools enabling relevant training institutions to organize run and evaluate training for Rapid Response Teams.

<https://extranet.who.int/hslp/?q=content/national-rrt-training-package>

2. Build and Organize a Course: through this section, training toolkits and packages are made available to public health institutions, ministries and other organizations involved in health security under the IHR. The learning materials posted in this section can be tailored and adapted to reflect country-specific learning needs and contexts.

Available in this section:

- National RRT Training Package: a structured comprehensive collection of training resources and tools enabling relevant training institutions to organize, run and evaluate training for national Rapid Response Teams (RRT). This training package was first developed with a focus on Ebola Virus Disease (EVD) Preparedness for RRTs. The team, working with

partners including the US CDC and other teams within WHO recently completed the adaptation of the package to an all-hazard approach. Pending a full translation an adaptation of the IHR TT is available in French and Arabic.

- The IHR Training Toolkit: the toolkit is a compendium of learning modules on key topics in support of IHR implementation. In 2015, the team worked on the design of a module on the “IHR Implementation at the human-animal interface; the team is currently working on the design of a module on the “IHR Monitoring and Evaluation Framework”. Pending a complete translation of the IHR Training Toolkit in other languages, a condensed version in the Arabic and French languages is also available.

3. The Sharing Corner: this section provides institutions and professionals engaged in the strengthening and maintenance of IHR core capacities with an environment for knowledge building and collaborative learning facilitated through communities of practice sharing common technical goals. This section currently supports the work of two communities of practice: the national Rapid Response Teams knowledge network and the PAGnet.

In 2015, the Health Security Learning Platform welcomed 1,400 visitors and participants

EVD PREPAREDNESS

In September 2014, to support the Ebola virus disease (EVD) outbreak and at the request of specific technical teams and Regional Offices involved in the EVD response, the WHO Learning Solutions and Training support team further broadened its scope and developed EVD-specific face to face and online trainings packages ranging from pre-deployment occupational safety, to infection prevention and control, to EVD case management at ports and airports.

NATIONAL RAPID RESPONSE TEAMS TRAINING PACKAGE: AN EXEMPLARY COLLABORATIVE WORK ACROSS WHO AND WITH PARTNERS TO SERVE COUNTRIES NEEDS

In 2015, to further support preparedness in member states for EVD and other major disease outbreaks, the team developed, at the request of WHO Regional Offices for Africa (AFRO) and the Middle East (EMRO), the National Rapid Response Teams training package, a comprehensive collection of modular training resources and tools enabling relevant training institutions in the WHO regions and member states to organize, run and evaluate training for National RRTs, tailored to specific countries' needs.

The national RRT Training Package is a structured comprehensive collection of training resources and tools enabling relevant training institutions to organize, run and evaluate training for Rapid Response Teams. It aims at reinforcing the capacity and skills of multidisciplinary Rapid Response Teams (RRT) and their individual members to early detect and effectively respond to a potential outbreak. The national RRT training has been designed and developed by the WHO Regional Office for Eastern Mediterranean Region, the WHO Regional Office for Africa and the WHO National Capacity Alert and Response Department, in collaboration with the Egyptian Society of Epidemiology. Its target audience include national professionals (including epidemiologists, clinicians - doctors and nurses - laboratory experts, communication officers, social mobilization experts / anthropologists, logisticians, psychosocial support experts, data managers, infection prevention and control (IPC) / Environmental experts) who are likely to be deployed as members of Rapid Response Teams when an alert is given on a suspected case in their country.

Designed in 2015 to support preparedness in Member States for EVD and other major disease outbreaks, the training package was recently updated to reflect an all-hazard approach. The training package reflects a modular and flexible approach, enabling relevant training institutions

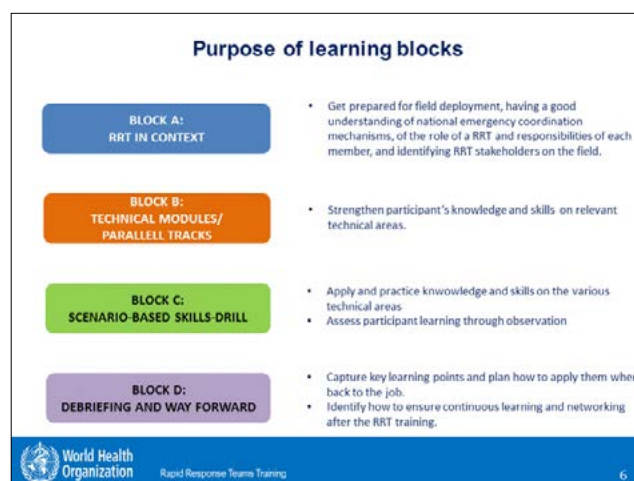
and member states to organize, run and evaluate training for National RRTs, tailored to specific countries' needs. The package is built around 4 major blocks.

Block C is built around a 3-day skills drill exercise, using a progressive scenario together with series of scripted injects to enable multidisciplinary Rapid Response Teams (RRT) and their individual members to practice and demonstrate the knowledge and skills needed to early detect and effectively respond to any public health event.

In 2015, National Rapid Response Teams trainings were delivered to 211 participants and in-country facilitators from 21 countries in the Middle East and North Africa; 151 participants and in-country facilitators from 3 countries (Niger, Mauritania and Togo) in French-speaking Africa.

In 2016, WHO in collaboration with the US-CDC, designed and facilitated the delivery of a Training of Trainers (ToT) programme on the national Rapid Response Teams training package. The ToT was delivered in Uganda to 35 participants representing the countries of Ethiopia, Ghana, Liberia, Malawi, and Uganda. From 26 to 30 September, the ToT will be delivered in French in Burkina Faso to facilitation teams representing the countries of Benin, Burkina Faso, the Central African Republic, Chad, Guinea and Mauritania.

The RRTs training aims at reinforcing the capacity and skills of multidisciplinary National RRTs and their individual members to strengthen the early detection, control and response to public health events within a coordinated incident management system. Besides technical expertise, the RRT training contributes to the national coordination of emergency responses, and aims at strengthening teambuilding. A forum for continuous learning upon completion of the training is also provided.



DELIVERY OF RAPID RESPONSE TEAMS TRAINING IN THE WHO EASTERN MEDITERRANEAN AND AFRICAN REGIONS, MARCH 2015-SEPTEMBER 2016

WHO Region	Training/country/dates	N° of participants	N° of facilitators	N° of countries	Total
EMRO March to May 2015	Rapid Response Teams training in Khartoum, Sudan, 15 to 19 March 2015	38	17	2	55
	Rapid Response Teams training in Dubai, United Arab Emirates, 11 to 15 May 2015	45	18	10	63
	Rapid Response Team training in Morocco, Rabat, 18 to 22 May 2015	27	17	4	44
	Rapid Response Team training in training in Amman, 24 to 28 May 2015	38	11	5	49
	TOTAL EMRO	148	63	21	211
AFRO Nov. 2015 to Sept. 2016	Rapid Response Teams training in Dosso, Niger, 16 to 21 November 2015	31	12	1	43
	Rapid Response Teams training in Nouakchott, Mauritania, 22 to 27 November 2015	40	17	1	57
	Rapid Response Teams training in Lome, Togo, 30 November to 5 December 2015	35	16	1	51
	Rapid Response Teams training in Sélingué, Mali, 11 to 18 July 2016	30	9	1	39
	Training of Trainers for RRT training in Entebbe, Uganda, 29 August to 02 September 2016	39	14	5	53
	TOTAL AFRO	175	68	9	243
	TOTAL EMRO + AFRO	323	136	30	474

PUBLICATIONS AND REFERENCE TOOLS

LEARNING SOLUTIONS AND TRAINING SUPPORT

- **National Rapid Response Team training package**

A comprehensive collection of modular training resources and tools enabling relevant training institutions in the WHO regions and member states to organize, run and evaluate training for National RRTs, tailored to specific countries' needs.

This and other training packages are available on the Health Security Learning Platform: <https://extranet.who.int/hslp/training/>

LABORATORY STRENGTHENING AND BIORISK MANAGEMENT

- **Guidance on regulations for the Transport of Infectious Substances 2015-2016**

Provides information for identifying, classifying, marking, labelling, packaging, documenting and refrigerating infectious substances for transportation and ensuring their safe delivery, and practical guidance to facilitate compliance with applicable international regulations for the transport of infectious substances by all modes of transport, both nationally and internationally, and include the changes that apply from 1 January 2015.

Available in Arabic, French, Russian and Spanish at: www.who.int/ihr/publications/who_hse_ihr_2015.2/en/

- **A Guide for Shippers of Infectious Substances, 2015**

Originally developed in 2009 to assist shippers with classifying, documenting, marking, labelling, and packaging infectious substances, the 2015 version also addresses the refrigeration of infectious substances with ice pads, dry ice and using dry shippers.

Accessible online at: www.who.int/ihr/infectious_substances/en/

- **Extended Biosafety Advisory Group: Meeting report**

Report of the Extended Biosafety Advisory Group (BAG) meeting, 24 to 26 November 2014, WHO HQ Geneva, Switzerland. The objective of the meeting was called to review progress under the WHO laboratory biorisk management strategic framework for 2012-2016.

www.who.int/ihr/publications/WHO_HSE_GCR_2016.7/en/

PORTS, AIRPORTS AND GROUND CROSSINGS

- **Vector Surveillance at Ports, Airports and Ground Crossings**

This handbook provides guidance to Member States on the practical aspects of maintaining sanitary standards at international borders at ports, airports, and ground crossings (points of entry) as set out in the International Health Regulations (2015). Developed jointly by the Control of Neglected Tropical Diseases Vector Ecology and Management Unit and the Department of Global Capacities, Alert and Response Support for International Health Regulations Capacity Development Ports, Airports and Ground Crossings Team.

Accessible online at: www.who.int/ihr/publications/9789241549592/en

Arabic, Chinese, French and Russian translations in press.

- **Handbook for the Management of Public Health Events in Air Transport**

This handbook targets national IHR focal points and public health authorities at PoE, as well as national aviation regulatory authorities, airport operators and personnel, aircraft operators, air crew and other stakeholders involved in air transport and emergency preparedness and response to public health events.

Accessible online at: www.who.int/ihr/publications/9789241510165_eng/en/

Chinese, French and Russian translations in press.

- **Handbook for the Management of Public Health Events on Board Ships**

Provides technical advice to competent authorities at the port level for management of public health events on board ships, and complements other WHO publications addressing risk assessment at the national level, contingency planning at ports, airports and ground crossings, and establishment of capacities and application of emergency plans at the port level.

Available in Arabic, Chinese, English, French and Russian at:

www.who.int/ihr/publications/9789241549462/en/

• Points of entry event management - Step by step

Developed to provide concise step by step guidance using infographics, these leaflets lay out the essential steps for health protection at points of entry:

- Management of events in air transport
- Management of events on board ships
- Health protection at points of entry: Vector surveillance and control

Accessible online at: www.who.int/ihr/ports_airports/en/

SURVEILLANCE/EARLY WARNING AND RESPONSE

• Surveillance and early warning and response - Step by step

These leaflets lay out the essential steps 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; and 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.

- Points of entry and national surveillance systems
- Detect earlier to better protect

Available in English, French and Russian, at: www.who.int/ihr/lyon/surveillance/en/

NEWSLETTERS FOR IHR PARTNERS AND STAKEHOLDERS

• WHO Lyon Office newsletter

This biannual newsletter presents highlights of the technical activities of the WHO Lyon Office and GCR Department, and synergies with the Lyon Metropolis and Rhone Alps Region scientific community.

Available at: www.who.int/ihr/publications/oms_lyon_newsletters/en/

Now available in English, French and Russian.

MOVING FORWARD

In 2015 the WHO Executive Board suggested wide-ranging reforms to be undertaken in WHO's work in disease outbreaks, humanitarian emergencies and crises. Consequently the World Health Assembly in May 2016 adopted the decision to establish a new Health Emergencies Programme (WHE). This marked a historic moment and represents a fundamental development for the Organization, complementing WHO's traditional technical and normative role with new operational capacities and capabilities for its work in disease outbreaks and humanitarian emergencies.

The new Programme is designed to bring speed and predictability to WHO's emergency work, using an all-hazards approach, promoting collective action, and encompassing emergency preparedness, readiness, response and early recovery activities. The new Programme, headed by its Executive Director Dr Peter Salama who joined WHO in August 2016, will be aligned with the principles of a single programme across the WHO six regions with one set of performance metrics. The Regional directors, responsible for the management of health emergencies within this new programme will be central to its success and implementation, particularly by providing leadership in the application and enforcement of Programme standards, government and regional intergovernmental relations, interagency and partner relations at regional level, and the day-to-day management of emergency management activities in their regions.

The new structure will reflect WHO's major functions in health emergency risk management as follows:

- Health emergency information and risk assessments including event detection and verification, health emergency operations monitoring, and data management and analytics;
- Emergency operations including incident management functions, operational partnerships and readiness, and operations support and logistics;
- Infectious hazards management including high threat pathogens, expert networks and, at headquarters, the secretariat of the Pandemic Influenza Preparedness Framework;
- Country health emergency preparedness and the International Health Regulations (2005) including monitoring and evaluation of national preparedness capacities, planning and capacity building for critical capacities and, at headquarters, the secretariat of the International Health Regulations (2005). The current GCR department will be transformed as the new Country Health Emergency Preparedness and IHR (CPI) department.

The WHO Lyon Office will be integral part of the WHE Programme and CPI department work in support of Member State preparedness aligned with the recommendations of the Review Committee on the Role of the International Health Regulations (2005) in the Ebola Outbreak and Response and the Sendai Framework for Disaster Risk Reduction 2015-2030. The Programme's work in preparedness will be structured to support the application by all States Parties of the new monitoring and evaluation framework for the International Health Regulations (2005) and assessments with the new joint external evaluation tool as requested. Support for national emergency preparedness planning and capacity building will be prioritized in high-vulnerability, low-capacity countries with a focus on rapidly establishing the most critical core capacities for early warning, incident management, risk communications and safe hospitals. The mission of the WHO Lyon Office will focus on health emergency preparedness planning and strengthening countries' capacities and will be closely integrated with the Organization's work on health systems strengthening.

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