In September 2015 the UN General Assembly adopted the 17 Sustainable development goals and 169 targets codified in the 2030 Agenda for Sustainable Development. This is an optimistic impetus for the world. Nevertheless, the members of the General Assembly also sounded a note of caution: “global health threats are more frequent and intense natural disasters, spiralling conflicts, violent extremism and related humanitarian crises and forced displacement of people threaten to reverse much of progress made in recent decades.”

Indeed the cost of health emergencies to the world continues to grow. Since 2011 more than 1100 epidemic events have occurred around the world and in 2016 over 80 million people needed aid from health partners across 25 humanitarian emergencies. These emergencies can have extensive political, economic, social and public health impacts with potential long-term consequences.

In 2016 the G20 put health on the agenda and issued the Action Plan on the 2030 Agenda for Sustainable Development, and committed “to support international efforts, including those of the WHO, to manage health risks and crisis in a comprehensive way, from preparedness and early identification of disease risks to effective response and recovery efforts in the context of the International Health Regulations (IHR).”

In May 2017 the Berlin declaration issued at the first-ever G20 Health Ministers’ meeting stated “efficient global health crisis management can only be ensured through compliance with the International Health Regulations (IHR). We will act accordingly within our obligations under the IHR and support the leadership and coordination of WHO in the event of health crises of international concern.”

The importance of building public health capacity and ensuring quality at national, regional and global level in order to promptly deploy trained personnel to emergencies and outbreaks is strongly emphasized as well as the importance of implementing the International Health Regulations (IHR 2005), including by building and strengthening required core capacities within the context of health systems strengthening for prevention, detection, preparedness and response, as a key priority.

All stakeholders, partners and donors in the global health arena support the swift and comprehensive translation of the IHR into practice at national, regional and international level. As an example, France signed in April 2017 a grant in the amount of EUR 5M to support WHO Lyon Office activities on “Strengthening countries preparedness to health emergencies”. This includes strengthened and coordinated assistance to countries to implement the IHR.

Within this global context, the WHO Lyon Office constitutes an essential element of the new WHO Health Emergencies (WHE), particularly of its Country Health Preparedness and IHR department (CPI) by supporting global, regional and country efforts on countries’ preparedness and capacity building.

“I envision a world in which everyone can live healthy, productive lives, regardless of who they are or where they live.”

Dr Tedros Adhanom Ghebreyesus
WHO Director-General

THE WHO LYON OFFICE—
A KEY COMPONENT OF THE WHO HEALTH EMERGENCIES PROGRAMME

WHE vision: Protecting health and saving lives in outbreaks and emergencies

1The WHO Lyon Office is the technical unit, Preparedness, Readiness & Core Capacity Building of the Department of Country Health Emergency Preparedness & IHR (CPI)
WHO LYON OFFICE: ADVANCED TECHNICAL SUPPORT TO COUNTRIES

ACHIEVEMENTS OCT. 2016—2017

Support to 17 out of 56 WHO Joint External Evaluation (WHO JEE) assessed countries

Vision
- All vulnerable countries are prepared for the full emergency-cycle management
- All countries are engaged in fulfilling their obligations to develop core capacities under the IHR (2005)

Mission
- Establish and continually improve national capacities for the prevention, detection, preparedness and response to health events and encourage international networking and partnership

Highlights of the technical teams
- 9 of 11 countries WHE Priority 1
- 10 of 17 countries WHE Priority 2
- 25 of 49 countries WHE Priority 3

Laboratory strengthening
- 12 laboratory strengthening projects in the 6 WHO regions
- Key guidance and reference tools translated into 8 languages

National surveillance
- 11 projects to support national surveillance strengthening in 8 countries

Learning solutions and training
- Over 23 trainings on health security in 50 countries
- Over 600 public health professionals trained

Intersectoral collaboration in travel and transport
- 7 projects to strengthen public health measures in travel, tourism and transport in 20 countries

Mass gatherings
- 4 technical consultations in 4 countries for preparedness to mass gatherings

All projects are carried out in close collaboration with the 6 WHO regional offices and more than 150 country offices around the world.
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STRENGTHENING NATIONAL SURVEILLANCE CAPACITIES INCLUDING EARLY WARNING AND EARLY LABORATORY DETECTION
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, such as natural disasters or humanitarian crises. In this context, laboratory strengthening remains an important area for improvement for many vulnerable countries.

### ACTIVITIES

**Laboratory quality improvement**

From 2016 to 2017, the team continued to promote and disseminate tools for a stepwise implementation of internationally recognized standards towards accreditation of medical laboratories and provision of external quality assessment (EQA or proficiency-testing [PT]) schemes.

Participation in an EQA scheme is a critical element of any strong laboratory quality management system. After organizing the first global EQA scheme for MERS CoV and other human coronaviruses in 2016, re-emergence of arboviruses such as Zika and yellow fever, the team developed the first WHO global EQA scheme for the detection of arbovirus by PCR.

A total of 107 reference laboratories from 84 countries received a panel of specimens for the detection of Dengue, Chikungunya, and Zika viruses by PCR and 96 laboratories from 74 countries sent back results. In addition, an optional panel for yellow fever molecular testing was shipped to 71 of those participating laboratories and 58 of them sent back results. All WHO regions were represented. The participation rate and participants’ satisfaction (assessed through a user survey) were excellent. Results were satisfactory for most of the participating laboratories. However, 30% of the participants submitted one or more incorrect results for the arbovirus panel, and 29% of the participants submitted one or more incorrect results for the yellow fever panel. Individual results have been communicated to the participants as well as to the WHO focal points in the respective regional offices so that corrective actions can be taken to improve the future performance of these laboratories.

A stakeholders’ meeting was convened by the WHO team in Panama in May 2017 to review this EQA scheme and the decision was made to repeat this initiative in 2018 given the excellent feedback received from participants and WHO collaborating centers involved in the project. In parallel with this global scheme for arboviruses, the team continued its long-standing support to the organization of WHO Regional 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. The African programme has also gone through an external evaluation and the findings of this evaluation will help when revisiting the programme to address any identified weaknesses.

As mentioned in previous activity reports, the team developed a Laboratory Quality Stepwise Implementation (LQSI) tool that provides detailed guidance, templates and checklists to help any laboratory to comply with ISO 15189. To ensure further dissemination, the tool was translated in Spanish and Arabic. In addition, three videos were produced and published to promote the implementation of quality systems in laboratories and facilitate the use of the LQSI tool.

The Laboratory quality management system – Basics – online course component, was developed in collaboration with WHO/EURO in English (July 2017) and Russian (September 2017).

**Biosafety and biosecurity**

Laboratory biosafety and biosecurity remain of utmost importance to protect laboratory workers and the general public from an accidental or deliberate release of infectious substances from laboratories. In 2017, the majority of the team resources were dedicated to the revision of the WHO Laboratory biosafety Manual (LBM). The WHO LBM has provided practical yet authoritative guidance on biosafety to the biological and medical laboratories for more than three decades since its first edition released in 1983. The third and present edition published in 2004 has been translated into more than 10 UN official and other languages and considered as a reference document by the biosafety community broadly. Considerable developments have been made in the preceding 10 years in this fast-evolving field and revision became indispensable in order to keep the content current and relevant. The revision of the manual proposed initially in 2014 to the WHO’s consultative mechanism entitled Extended Biosafety Advisory Group (EAG) was further discussed at the following BAG meeting in December 2016 that gathered more than 30 representatives from a broad range of stakeholders, including WHO Collaborating Centres, national governments, public health institutions, relevant international organizations, international and regional biosafety associations and WHO Regional Offices. An editorial committee comprised of prominent external experts was established and met four times between September 2016 and September 2017. Additional contributors and reviewers have been identified and it is expected that the manual will be published in 2018.
Exposure to an infectious material can occur in a laboratory but can also occur during the transportation of laboratory specimens to or between laboratories. An updated version of the WHO Guidance on Regulations for the Transport of Infectious Substances was published early 2017. WHO continues to receive a significant number of requests from resource-limited countries to certify shippers of infectious substances according to the international regulations and the team is now investing resources to update and facilitate access to training opportunities for shippers, notably through an increased use of, and access to, distance learning courses as a complement or a substitute to face-to-face training sessions. New training modules are being developed and will be released during the next biennium 2018/2019.

The Online refresher course “Infectious substances shipping training” (e-ISST v2.0; August 2017) aims to train and recently shippers of infectious substances on applicable international transport regulations. The course targets public health professionals initially certified as shippers.

Laboratory simulation exercises as part of the IHR Monitoring and Evaluation framework

Simulation exercises are a useful means of testing countries’ preparedness for response to emergency situations. WHO is proposing to support countries in conducting simulation exercises as part of the new IHR monitoring and evaluation framework. Laboratory capacities are regularly assessed during outbreak response simulation exercises, however often on a very superficial basis.

In addition, WHO is developing a model regulation on biosafety that could guide WHO Member States in their efforts to update their regulatory framework in this area. WHO has contracted the Lübeck University of Applied Sciences to conduct a thorough analysis of the current regulations in place in developed and developing countries and propose options for the development of a WHO model. In this context, WHO works in close association with the International Expert Group on Biosafety and Biosecurity Regulations (I5GBBR) and participated in its 6th meeting in Canberra, Australia, in March 2017.

Lastly, the team organized the biannual inspections of the two authorized repositories of the variola virus at the State Research Center of Virology and Biotechnology (VECTOR) in Novosibirsk Region, Russian Federation in October 2016 and at the US Centers for Disease Control and Prevention (CDC) in Atlanta, USA, in May 2017. These inspections aim at ensuring that the conditions of storage of the virus and of research conducted in the laboratories meet the highest requirements for biosafety and biosecurity.

After two successful simulation exercises conducted in Ghana and Côte d’Ivoire in 2016, the team has further developed and finalized a set of four scenarios that are now available in French and English for adaptation and implementation in the field.

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, many countries do not have capacity and training to perform antibiotic susceptibility testing according to the internationally recognized standards. The team continued to support production of short training videos demonstrating the European Committee on Antimicrobial Susceptibility Testing (EUCAST) method for performing an AST. These videos can be found on the EUCAST website8 and are now available in 8 different languages. In addition, the team directly participated in several policy-level and technical meetings on antimicrobial resistance (Switzerland, December 2016; Denmark, March 2017; Sweden, April 2017) and in a mission to review the capacity of the Ministry of Health in Jordan to commence national surveillance of antimicrobial resistance in January 2017.

Global laboratory leadership program (GLLP)

To be better prepared to address public health challenges including emergencies, it is critical to strengthen the laboratory workforce. The team has long articulated the need for specialized training for laboratory directors in the areas of leadership and management, with a first stakeholders’ consultation held in 2011. Since then, few initiatives have emerged that address partially the identified needs Nevertheless more resources and training opportunities are still needed. In this context, WHO, the US Centers for Disease Control and Prevention and the US Association of Public Health Laboratories renewed their collaborative commitments to define core competencies for laboratory leaders and further develop a Global Laboratory Leadership Program (GLLP) that will draw on a standardized curriculum and implementation framework designed to transform mid-level laboratory managers and scientists into effective leaders. The programme envisions a set of nested didactic components combined with mentorship and practical work experiences that provide a comprehensive curriculum and model that can be tailored for use by the relevant authorities and entities throughout the world.

WHO, APHL and US CDC have further engaged with FAO, OIE and the European CDC that committed to contribute to the development of the training curriculum and materials and ensure that such programme is also relevant for managers of veterinary laboratories in a One-Health approach. It is envisaged that the GLLP training package will be published in 2018 for further dissemination and implementation in the coming years.

WHO-European Union partnership for “Strengthening health laboratories to minimize potential biological risks”

In collaboration with the WHO European (EURO) and Eastern Mediterranean (EMRO) regional offices, the team continued to implement a USD 6 million project, funded by European Commission DG Development and Cooperation (EU DEVCO), as well as a USD 1 million project implemented in Pakistan. One of the key achievements of this project was the adoption of an Eastern Mediterranean Region Strategic Framework for Strengthening Health Laboratory Services 2016-2020 by the 63rd Session of the Regional Committee for the Eastern Mediterranean (EMRO) in October 2016. The Framework was further discussed at the intercountry meeting of the directors of public health laboratories in the Eastern Mediterranean Region held in Oman in October 2016 with 58 participants, including 27 representatives from 19 Member States.

The project also supported further activities of the WHO/EURO “Better labs for better health initiative” The Better Labs for Better Health initiative aims to help Member States (to date, primarily Kyrgyzstan, the Republic of Moldova, Tajikistan, Turkmenistan and Uzbekistan) to meet their commitments under the International Health Regulations (2005) to respond to health emergencies by strengthening laboratory services. This year was marked by the publication of practical guides on the development of national laboratory policies and strategic plans9, based upon the experience accrued in Central Asia in recent years. A 2nd partners’ meeting held in Georgia in December 2016 to review progress made in these areas since the first partners’ meeting that took place in June 2014. A mentoring project for implementation of laboratory quality system management was presented, and various models of public health laboratory systems were presented and discussed. The meeting report is available online9.
2. SUPPORT TO NATIONAL SURVEILLANCE

The International Health Regulations (2005) include a number of procedures for event management as well as requirements related to national disease surveillance and response systems. Countries are expected to implement/improve/utilize existing national structures and resources to meet their core capacity requirements under these Regulations, including with regard to their surveillance, reporting, notification, verification, response and collaboration activities.

The overall commitment of the team for support to national surveillance is to provide strong support to the most vulnerable countries with aim of strengthening the early warning and response (EWAR) function as a key component of their national surveillance systems.

ACTIVITIES

Implementation/improvement of national capacities for early warning and response

Following the technical consultation that took place in Lyon in March 2016 during which the guide “Early warning, assessment and response to acute public health events - Implementation of early warning and response (EWAR) function as a key component of their national surveillance systems.” was updated, it was decided that, in accordance with the roadmap established, an EWAR implementation toolkit should be developed for a comprehensive and integrated approach to the principles developed in the guide. This toolkit includes an assessment tool with related guidance for the development of national action plans, standard operating procedures for public health surveillance and training modules.

The EWAR assessment tool was pilot-tested in 2016 and in 2017 in India, the Islamic Republic of the Gambia, Lebanon and Togo.

A final version integrating the inputs provided during the testing phase should be produced in the first quarter of 2018.

Components of the planned toolkit:

Part 1: Assessment tool of the existing national public health surveillance capacities.

Part 2: Guidance for developing a tailored plan of action and national standard operating procedures (SOPs) for EWAR implementation and strengthening.

Part 3: Training modules to implement and conduct EWAR.

In parallel, given the measurable importance of the contribution provided by the communities to the early detection and response to public health events, the team began the development of guidance and tools to support the implementation of efficient community-based surveillance in countries.

First step was to identify the terms that denote the concept of community-based surveillance in the literature, explore how community-based surveillance is implemented in different contexts, identify and describe existing guidance and recommendations that support the implementation or the strengthening of a community-based surveillance system, and identify the key stakeholders involved in community-based surveillance at national and international level.

This is carried out through a literature review that is in progress.

Next steps will be to collect existing good practices and procedures for implementing community-based surveillance, and develop or update existing training modules.

Strengthening of coordinated surveillance between points of entry and national health surveillance systems

It is crucial that the information on public health surveillance available at points of entry (ports, airports and ground crossings) be integrated into the national health surveillance system.

To support countries to strengthen coordination of surveillance information between both entities, in 2014 the team developed a guide entitled “Coordinated public health surveillance between points of entry and national health surveillance systems”. In order to update the guide and finalize the accompanying tools, a technical consultation gathering 22 international experts took place in Lyon, France, from 20 to 22 June 2017. The meeting attained its objectives, and a detailed roadmap for the revision of the guide and toolbox was agreed.

The EWAR assessment tool was pilot-tested in 2016 and in 2017 in India, the Islamic Republic of the Gambia, Lebanon and Togo.
Development of mechanisms and tools for improving quality and use of public health data

National public health surveillance is often fragmented between disease-specific programmes, surveillance units, and departments in charge of health information management systems.

The team contributes to an initiative called “Health data collaborative,” a partnership of international agencies, governments, philanthropies, donors and academics, with the common aim of improving the availability, quality and use of data for local decision-making and tracking progress toward the health-related Sustainable development goals (SDGs). The team is in charge of coordinating with the US-CDC the working group on epidemiological surveillance. The role of the working groups is to develop standards, indicators and other tools that help countries to collect, analyse and use reliable health data.

In order to permit remote health facilities to transmit public health surveillance data and inform the health system when a public health event occurs, to analyse data, and produce epidemiological bulletins with the objective of ensuring timely detection of public health events and providing rapid response, the team has developed an IT application called Argus using SMS that has been pilot tested in the Central African Republic and in Togo. These tests have made it possible to identify improvements to better respond to the users’ needs.

The team worked on the integration of the IT application with DHS2, an application that is used in many African countries for managing health information data, and is currently developing a toolbox that will contain the application, as well as documents and guides that will help countries to implement the tool autonomously.

Strengthening human resources for public health surveillance as part of the IHR Monitoring and Evaluation framework and post JEE support in Malawi

The ongoing Joint External Evaluations (JEEs) to assess the implementation status of the IHR (2005) have highlighted the need to strengthen human resources for implementing the IHR (2005) capacities. Supporting member states to develop training plans for surveillance and assisting countries implement these plans greatly contribute to increase surveillance and health systems workforce that facilitates the implementation of the IHR.

To respond to this need, the team developed guidance, tools and templates to support member states to assess the needs, requirements and capacities for training in public health surveillance and develop surveillance training plans.

The guidance is based on the experiences in Morocco (2010) and Malawi (2016). It details preparatory steps for countries prior to the assessment and development of training plan for surveillance. The toolbox contains resources that will facilitate the assessment of training needs, requirements and capacity and development of training plan. The toolbox was presented as a pre-conference workshop during the 9th TEPHINET Global Scientific Conference in Chiang Mai, Thailand 6 to 11, August 2017.

This toolkit was successfully tested in Malawi, serving to identify priority actions for strengthening the surveillance workforce. In 2018, two staff from the Ministry of Health will be enrolled in the two year South African field epidemiology training programme, to be trained as senior epidemiologists.

The toolkit and its packaging are currently under finalization; it will enable countries to conduct their own assessments and develop their national surveillance training plans.
PUBLIC HEALTH PROTECTION FOR TRAVEL, TOURISM, MASS GATHERINGS AND TRANSPORT, AND STRENGTHENING CAPACITIES AT PORTS, AIRPORTS AND GROUND CROSSINGS
1. FOSTERING INTERSECTORAL WORK WITH TRAVEL, TOURISM, AND SUPPORTING CAPACITIES REQUIRED IN PORTS, AIRPORTS AND GROUND CROSSINGS

Along with the creation of the WHO Health Emergency Programme in 2016, the team in charge of this area of work has been in the process of transformation. In addition to its original focus on assisting countries to building IHR core capacities to strengthen readiness and resilience for health emergencies and events at ports, airports and ground crossings and on providing normative technical support; its activities have been extended and now include strengthening preparedness for mass gathering events and tourism destinations.

ACTIVITIES

Development of guidelines and tools for multisectoral health emergency preparedness capacity

The team developed a learning programme for management of public health events in air transport. This programme targets IHR national focal points, public health authorities and personnel in aviation, transport operators, crew members aircraft and other stakeholders involved in the management of public health events in aviation. The aim is to assist the port health authorities to respond in a consistent manner to events and to make decisions on interventions that are commensurate to the risks while avoiding unnecessary interferences with international traffic and trade, accentuating using multi-sectoral approach. The objective is to reinforce participant’s capacities to support aviation health authorities in:

- establishing, revising and, or updating the national or site specific operational plans and standard operating procedures (SOPs) to manage public health events during air transport;
- utilizing the risk management model of: a) event detection and notification; b) event verification; c) preliminary “immediate” arrangements; d) risk assessment; e) public health response; and f) monitoring and evaluation.

Points of entry vector web-based identification platform

The web-based vector identification platform for points of entry (PoE) aims to assist countries in strengthening core capacities for vector surveillance and control at PoE under the IHR framework via a collaboration with the WHO Neglected Tropical Diseases Department, the WHO regional offices and countries.

The platform provides support to PoE experts responsible for vector surveillance and control at PoE under the IHR Framework via a collaboration with the WHO Neglected Tropical Diseases Department, the WHO regional offices and countries.

The long-term objective over the next 2-4 years is to assist countries in building capacity in this area of work by developing a sustainable network and global database on vector entomology and ecology at PoE for information sharing, knowledge and skill delivering, and remote support in vector identification.

The users of the platform will also be able to propose updates to the records available: new species, new characteristics, new pictures or search keys, which will be subject to review and approval of subject matter experts.

The platform is currently in production phase two, and testing has been conducted by a group of selected international users to ensure that the vector identification platform provides the expected benefits and covers the necessary range of vectors; the platform is being refined based on findings.

970 ship inspectors around the world have been trained via the WHO learning programme

A pilot training on event management in aviation was held in Accra, Ghana from 8 to 10 May 2017. Further to the success of the pilot, WHO AFRO has requested that this training be rolled out throughout the region. This will enable nearly 30 African countries over the next two years to conduct their own trainings for the management of public health events in air transport.

The platform will be shared by all countries, which will help national health authorities at PoE in early warning decision making and in taking adequate public health control measures to counteract the impact of vector borne diseases.
Technical support to countries for emergency preparedness as part of the IHR Monitoring and Evaluation framework and post JEE support in regions and vulnerable countries

The WHO ship inspection learning programme combines theory with on-site ship inspection simulations to assist trainees in attaining requisite theoretical knowledge together with hands-on experience on ship inspection and issuance of ship sanitation certificates under the framework of the WHO ship sanitation certificate learning programme.

Highlights of this programme include a national conveyance inspection training for ports, airports and ground crossings that took place in Accra, Ghana, from 28 to 30 September 2016, bringing together 30 public health officers with the responsibility to manage port health services and/or inspect ships, a ship inspection training in Visakhapatnam, India, from 16 to 21 October 2016, with 44 public health officers from port authorities responsible for management of port health services and/or ship inspections, from the national centre for disease control, food and drug and vector control disease control programme. Additional sessions on vector surveillance and control at points of entry and on maritime chemical events management were also delivered by subject matter experts from India and the United Kingdom.

A workshop on issuance of ship sanitation certificates and principles for developing the health component of contingency plans at ports, airports and ground crossings was organized by the WHO Regional Office for the Americas (AMRO) from 20 to 27 May 2017. Thirty-three participants from 15 countries in the Caribbean were invited to participate in this training that provides theoretical knowledge and practical hands-on experience. In addition, principles for the development of the health component of contingency plans at ports, airports and ground crossings, were presented during the workshop, and current contingency plans in the Caribbean sub region were reviewed. Finally a break-out group session was carried out on management of a public health event through a public health scenario requiring event management.

The team provides technical support to regions and countries in the Americas in their endeavors to enhance core capacities at ports, airports and ground crossings, including national assessments and joint external evaluations.

Support multisectoral international collaboration and networks to foster information-sharing and best practices for health emergency and disaster risk management

The Cooperative Agreement for Preventing the Spread of Communicable diseases through Air transport (CAPSCA) is a global cooperation with the civil aviation sector under the leadership of the International Civil Aviation Organization (ICAO) and in coordination with WHO and other partners. This project, comprised of more than 100 countries aims to help reduce the risk of serious spread of communicable diseases through air travel by means of cooperative arrangements between participating states. This involves seminars, workshops and assistance visits by aviation and public health experts for the development and implementation of contingency plans at airports. WHO supports CAPSCA while assisting states to implement public health emergency response plans for air transport as part of the IHR core capacity requirements for ports airports and ground crossings.

HIGHLIGHTS IN 2016-2017 INCLUDED:

Support to WHO WPRO regional meeting to strengthen the IHR core capacities at designated ports, airports and ground crossings, Xiamen, China, from 2 to 4 Nov 2016. 56 participants from 14 countries and territories in the Western Pacific region participated in this event, including observers from several international and regional organizations.

Participation in the joint external evaluation mission in Bangkok, Thailand from 26 to 30 June 2017. The mission comprised a team of international experts from the human and animal health sectors with the objective to identify priority areas for capacity strengthening to be better able to detect and respond to public health events.

Participation in the intercountry workshop in Kolkata, India, 21 to 23 August 2017, focusing on PoE core capacities and ground crossings and cross border collaboration to present the draft handbook, WHO public health at ground crossings. This event provided the opportunity to gather feedback on key criteria, and to learn about the status of health security at ground crossings in the WHO South-East Asia region.

Technical assistance to the Government of China from 6 to 11 November 2016 to carry out its national assessment at one airport and two ports in accordance with the IHR requirements, in collaboration with the WHO Country Office in China.
2. SUPPORTING PREPAREDNESS FOR MASS GATHERING EVENTS

Mass gatherings are events attended by a sufficient number of people to potentially strain the public health resources of a community, state or nation. The mass gatherings program provides guidance to countries hosting events that will draw unusually high numbers of people.

ACTIVITIES

4 — 10 dec. 2016

Scoping mission organized jointly with the WHO European Regional Office at the request of Ministry of Health, Turkmenistan to plan and conduct simulation exercises to test the intersectoral preparedness for the 5th Asian Indoor Games.

A table-top exercise on the management of a severe respiratory illness during the Games was conducted.

27 — 31 march 2017

Field exercise to test operational management of a suspect case of non-endemic disease at the Olympic Village from detection to admission at a designated hospital in Ashgabat and sample analysis at the National Laboratory.

Technical consultation on health risk assessment tools for mass gathering events, Jeddah, Saudi Arabia, hosted by the Global Centre for Mass Gatherings Medicine, Ministry of Health, Kingdom of Saudi Arabia, in collaboration with WHO. Objective: review existing mass gatherings risk assessment tools, technical guidance and training that could be tailored specifically to meet risks in the WHO Eastern Mediterranean Region.

31 jan. 1er feb. 2017

Technical support to enhance the preparedness for the 5th edition of the Asian Indoor and Martial Arts Games in Ashgabat, Turkmenistan, held in September 2017

> Field exercise to test operational management of a suspect case of a non-endemic disease at the Olympic Village from detection to admission at a designated hospital in Ashgabat and sample analysis at the National Laboratory.

> Functional exercise to test coordination and communication process, including risk communication at the Ministry of Health in the management of a suspect case of a non-endemic disease at the Olympic Village.

21 — 22 feb. 2017

Inter-country consultation on mass gathering preparedness and management, Jeddah, Indonesia, with experts from 5 countries (Bangladesh, India, Indonesia, Maldives, Thailand). WHO Collaborating Centres on Mass Gatherings and WHO staff from Country Offices, Regional Offices and Headquarters. Objective: provide a platform for countries concerned to discuss challenges and complexities for public health preparedness when hosting mass gatherings and leverage mass gatherings to strengthen IHR core capacities.
1. TRAINING AND LEARNING SOLUTIONS

In the context of the new WHO Health Emergencies Programme, there is a need to update and significantly scale-up the outreach of learning activities on health emergency preparedness, in particular in favour of the most vulnerable countries.

In response to this need, WHO provides member states with the implementation of a sustainable workforce development approach to building competence for health emergency preparedness and the IHR (2005).

The learning programme on “Health emergency preparedness and the IHR” contributes to building the competencies of professionals across a range of sectors including health laboratories, points of entry, surveillance, but also beyond the health sector, who are directly responsible for ensuring health security.

The health emergency preparedness and IHR learning programme aims to:

a) increase the competencies of member states’ professionals across relevant sectors who are responsible for preparing their respective countries for health emergencies and the sustainable implementation of the IHR with an emphasis on national IHR focal points (NFPs);

b) ensure that health emergency preparedness and IHR-specific issues are consistently and sustainably integrated into the existing and future learning programmes of the relevant professionals, and

c) ensure that countries are empowered to take ownership of learning on health emergency preparedness and IHR, adapting approaches and materials based on their respective national contexts and needs.

ACTIVITIES

Training for Rapid Response Teams (RRT)

The national rapid response teams (RRT) training aims at reinforcing the capacity and skills of multidisciplinary RRTs and their individual members for early detection and effective response to potential outbreaks. It targets national professionals (epidemiologists, clinicians, doctors, nurses, laboratory experts, communication officers, social mobilization experts and anthropologists, logisticians, psychosocial support experts, data managers, infection prevention and control (IPC)/environmental experts).

The team has developed a training of trainers (ToT) for rapid response teams training package in English and French. It includes a structured collection of training resources, tools, and guidance documents needed to deliver and evaluate a 5-day training of trainers that can be adapted to the specific context, needs and constraints of each country. It targets professionals responsible to plan, organize, deliver and evaluate a national rapid response teams training.

A revised training package was released on the Health Security Learning Platform (HSLP) in March 2017. The package will now enable ministries to prepare RRT training at national level, targeting a cadre of potential national trainers.

Supporting the establishment of Rapid Response Teams in Tanzania Mainland, as part of post-JEE support in regions and vulnerable countries

The team worked with WHO AFRO and the WHO country office in Tanzania to support the Ministry of Health Community Development, Gender, Elderly and Children (MOHCDEC) in implementing the roll-out of rapid response teams (RRT) trainings in Tanzania.

This training aims at enabling future training coordinators and facilitators to plan, organize, deliver and evaluate an RRT training to increase the number of health professionals to early detect and effectively respond to public health events.

The facilitators comprised 5 national experts supported by WHO prior to and during the training implementation; 36 carefully chosen participants representing various disciplines at all levels of the ministry of health and other relevant institutions (e.g., Prime Minister Office in charge of National Disaster Coordination, Ministry of Agriculture and Livestock) took part in the 8-day training.

A RRT training adaptation workshop held from 12 to 16 June, 2017 in Morogoro, Tanzania, aimed to critically review the generic RRT training package and tailor it to address the Tanzanian context. Participants were also introduced to adult learning principles that guided them in the revision of the modules, training activities and schedule. The participants comprised 24 experts from key institutions that support the Ministry in responding to public health events, and two facilitators from WHO.
As part of strengthening public health response both in Tanzania Mainland and Zanzibar, WHO conducted an advocacy workshop to identify current practices in responding to public health events and recommend a suitable structure for RRTs in Zanzibar. The Ministry of Health works with the different sectors through the leadership of the Office of the Second Vice President of Zanzibar in implementing the emergency preparedness and response, and the workshop comprised 20 participants from different institutions and sectors: the administration (municipalities), the agriculture office and representatives from the referral hospital and levels of the Ministry of Health both from Pemba and Unguja Islands (two biggest islands in Zanzibar). At the end of the workshop, the participants agreed RRT in Zanzibar will compose a minimum of four members from the health sector namely: experts for case management; Laboratory technologist; Environmental Health Officer (WASH, Social mobilisation) and Epidemiology Surveillance Officer.

Training venue and dates  N° of participants  N° of countries
Rapid Response Teams Training of Trainers (RRT ToT), April 29 - 28, 2017 in Bagamoyo, Tanzania 34 1
The RRT training adaptation workshop held June 12 - 14, 2017 in Morogoro, Tanzania 24 1
Advocacy for Establishment of RRT, June 18-24, 2017 in Zanzibar Tanzania 20 1

TOTAL 78 3

Supporting the establishment of Rapid Response Teams in Mali, Mauritania and Côte d’Ivoire

Training venue and dates  N° of participants  N° of countries
Rapid Response Teams training in Fana, Mali, D4 to 13 Oct. 2016 34 1
Rapid Response Teams training in Abidjan, Cote d’Ivoire, 8 to 12 May 2017 27 1
Training of Trainers for RRT training in Nouakchott, Mauritania, 13 to 17 Feb. 2017 28 1

TOTAL 99 3

One Health discussion with the Rapid Response Teams Knowledge Network as part of post-JEE support in regions and vulnerable countries

The Rapid Response Teams Knowledge Network (RRT KN) was created in 2015 as a mechanism to follow up with former participants of the RRT training and learn from their experiences as they practice skills in responding to public health events. Currently there are 604 RRT KN members (427 participants and 177 facilitators) from 35 countries in the WHO African and Eastern Mediterranean regions.

The RRT KN, supported by the RRT KN Secretariat, regularly exchange news and information through the quarterly newsletter (Beehive Buzzfeed) on RRT and related trainings conducted by members and response activities for public health events. Topics of discussion are identified by the RRT KN itself. In 2017, the RRT KN prepared a discussion programme on “One Health”, the programme was supported by the WHO One Health and the Learning Solutions and Training teams.

The “One Health Discussion” series was structured around 3 key areas: a) One Health Principles, b) International Policy Environment, and c) One Health Country Experiences. The objectives of the discussion were to build an understanding on country-based approaches in working across sectors for RRT, the benefits of working across sectors and disciplines, and the international policy environment that promotes necessity of using One Health approaches.

A special edition of the quarterly newsletter provides complete information on this activity.

HHR learning: training on IHR monitoring and evaluation framework

The purpose of the IHR monitoring and evaluation (IHR M&E) framework training is to enable national IHR focal points and relevant staff at country level to apply the IHR M&E framework when assessing the implementation of the IHR at national level. It includes acquisition of its implementation principles, the steps and potential challenges in implementing the four IHR M&E components: annual reporting, after action review, simulation exercises and joint external evaluation.

The target audience includes staff at national IHR focal points institutions and other staff responsible for the IHR monitoring and evaluations. The course material was designed to be incorporated as a key module of the IHR training toolkit; it is accessible on the health security learning platform.

Training venue and dates  N° of participants  N° of countries

TOTAL 59 23

WHO IHR Joint External Evaluation Tool (JEE) Support to the JEE Secretariat through the design, development and implementation of relevant training applications, including:

• JEE team lead training

The purpose of this training is to equip leaders on the competencies needed to effectively perform the JEE team lead role during three of the four phases of the JEE continuum, including: (i) JEE planning and preparation, (ii) external evaluation team Visit, and (iii) JEE reporting. This training targets current and future JEE team leads

• JEE team member orientation

This is a mandatory “on-line” course aiming to prepare every team member for JEE missions. It describes the key steps of the JEE process and the role of team members when facilitating technical discussions and drafting the final report. This module also enables future JEE team members to identify critical competencies for effective interactions within team members and with stakeholders. This training targets future JEE team members.

Training venue and dates  N° of participants  N° of countries
Joint external evaluation team leads pilot training, Brazzaville, Congo, 19-20 Oct 2016 16 6
Joint external evaluation team leads global training, Lyon, France 31 Jan - 1st Feb 2017 24 14
Joint external evaluation team leads AFRO regional training, Dakar, Senegal, 3-4 July 2017 19 13

TOTAL 59 33
Creating the enabling environment accessible to countries: the WHO Health Security Learning Platform (WHO HSLP)

The health security learning platform is a virtual learning environment set up to assist member states with the implementation of their respective workforce development plans and in-service training geared to public health leaders and professionals. The platform supports the learning needs of organizations and individuals with responsibilities in public health and other related sectors responsible for health emergency preparedness and the IHR through a wide range of learning programmes, activities and materials. The HSLP features a growing number of online courses, some highlighted in the various activities above.

HSLP training packages and materials

The HSLP also serves as the repository for several existing online learning courses and training packages:

- National rapid response team training package
- Rapid response teams training of trainers
- IHR (learning programme: a) introduction to the IHR and b) tutorials for notification assessment under the IHR
- IHR training toolkit
- Ship sanitation inspection and issuance of ship sanitation certificate learning programme
- Ebola virus disease training package
- Laboratory quality management system training toolkit

HSLP sharing corner

Finally, the HSLP serves as the host for virtual knowledge networks and collaborative learning through its “sharing corner”.

Support to CPI department training activities

One Health - Basics of intersectoral collaboration at the human, animal, environment interface

This on-line course, made possible with the funding support of USAID/EPT-2, is developed in collaboration with the CPI/One Health team.

The course will address the basics of multisectoral collaboration at the human - animal - environment interface.

The ultimate goal is to create a better understanding of the added-value of One Health in fulfilling IHR (2005) requirements for prevention, detection and response to public health events. More specifically the course will enable the learner to: describe the emergence and basics of the one health concept; explain principles for multisectoral coordination including examples for joint preparation and response to health events; and demonstrate how a One Health approach contributes to IHR implementation. The training targets national IHR focal points and professionals in other sectors responsible for IHR implementation.

The Basics of multisectoral collaboration at the human, animal, and environment interface - to go live in December 2017.

Online component of the WHO simulation exercise management training course

This course is designed to enhance skills for the development, implementation and evaluation of simulation exercises and after action reviews. It targets professionals responsible for developing and implementing national simulation exercise programmes within countries’ ministries of health, their partners and WHO. The course component (October 2017)
**Staff and Activity Expenditure per Donor (January – September 2017)**

- **Flexible Funds** * Flexible funds include 16% from Japan (WHE specific)

**TOTAL**
- Total: $4.3 m
- Flexible Funds*: 52%
- Pooled: 3%
- Canada: 3%
- USAID: 4%
- ECD: 6%
- France (incl. Grand Lyon): 8%
- CDC: 9%
- DTRA: 4%
- Others: 3%

**Sent to WHO Countries**
- Total: $17.5 m*
- Flexible Funds*: 27%
- PCB: 50%
- Others: 23%

**To be allocated next biennium**

**Notes:*
1) excluding Programme Support Cost (PSC)
2) Grand Lyon in-kind building contribution not included (USD 550K per biennium)

**Staff and Activity Expenditure per team (January – September 2017)**

**TOTAL**
- Total: $4.3 m
- Staff and Activity: 27%
- Laboratory Strengthening and Biosafety: 4%
- Director’s Office: 15%
- Travel trade and Mass Gatherings: 20%
- Learning Solutions and Training: 20%
- Coordination and Mgt.: 14%
- Strenthening National Surveillance: 20%

**Lyon Office Voluntary Contributions Distribution (2016-17)**

**TOTAL**
- Total: $17.5 m*
- Flexible Funds*: 27%
- PCB: 50%
- Others: 23%

**To be allocated next biennium**

**Lyon Office Voluntary Contributions Distribution per Donor (2016-17)**

- **DONORS**
  - **MILLERS**
  - **France (incl. Grand Lyon):** 6,721
  - **EC:** 4,645
  - **CDC:** 2,320
  - **USAID:** 1,692
  - **USDO**: 701
  - **DFATD:** 541
  - **MRC./ Pooled:** 489
  - **DFTRA:** 260
  - **Brazil:** 188

**Notes:***
1) excluding Programme Support Cost (PSC)
2) Grand Lyon in-kind building contribution not included (USD 550K per biennium)
From prevention through preparedness to early warning, response, and early recovery, the new WHO Health Emergencies Programme is helping countries to address the full risk management cycle and thus represents a fundamental change for WHO, complementing its traditional technical and normative capacities with new operational capabilities. The immediate next steps will be to increase resources, supplies and training in countries, develop standardized strategies and services for emergency response, expand our partnership arrangements and support country preparedness. Since 1 August 2016, WHO has operated under new emergency-management processes for risk assessment, grading of emergencies and incident management and recent emergency responses have seen the Programme continually tested and adjusted.

The new IHR Monitoring and evaluation framework (IHR MEF) underscores the mutual accountability, transparency, experience sharing and dialogue between Member States and WHO, which contributes to global health security. Through annual reporting, WHO Joint External Evaluations (JEE), simulation exercises, and After Action Reviews (AAR), the IHR MEF provides a comprehensive, multisectoral picture of a country’s capacities and functionalities in detecting, notifying and responding to public health emergencies. As integral part of the WHE Programme and CPI department, the WHO Lyon Office will continue to play a key role in this improvement cycle and supports Member States both in the assessment of country health emergency preparedness and in the development and further implementation of national plans to address critical capacity gaps.

The WHO Lyon Office will continue to give impetus and provide support to countries in measuring their progress in achieving the targets of the International Health Regulations (2005), ensuring any improvements can be sustained, and identifying the most urgent needs within their health security system, to prioritize opportunities for enhanced preparedness, response and action.