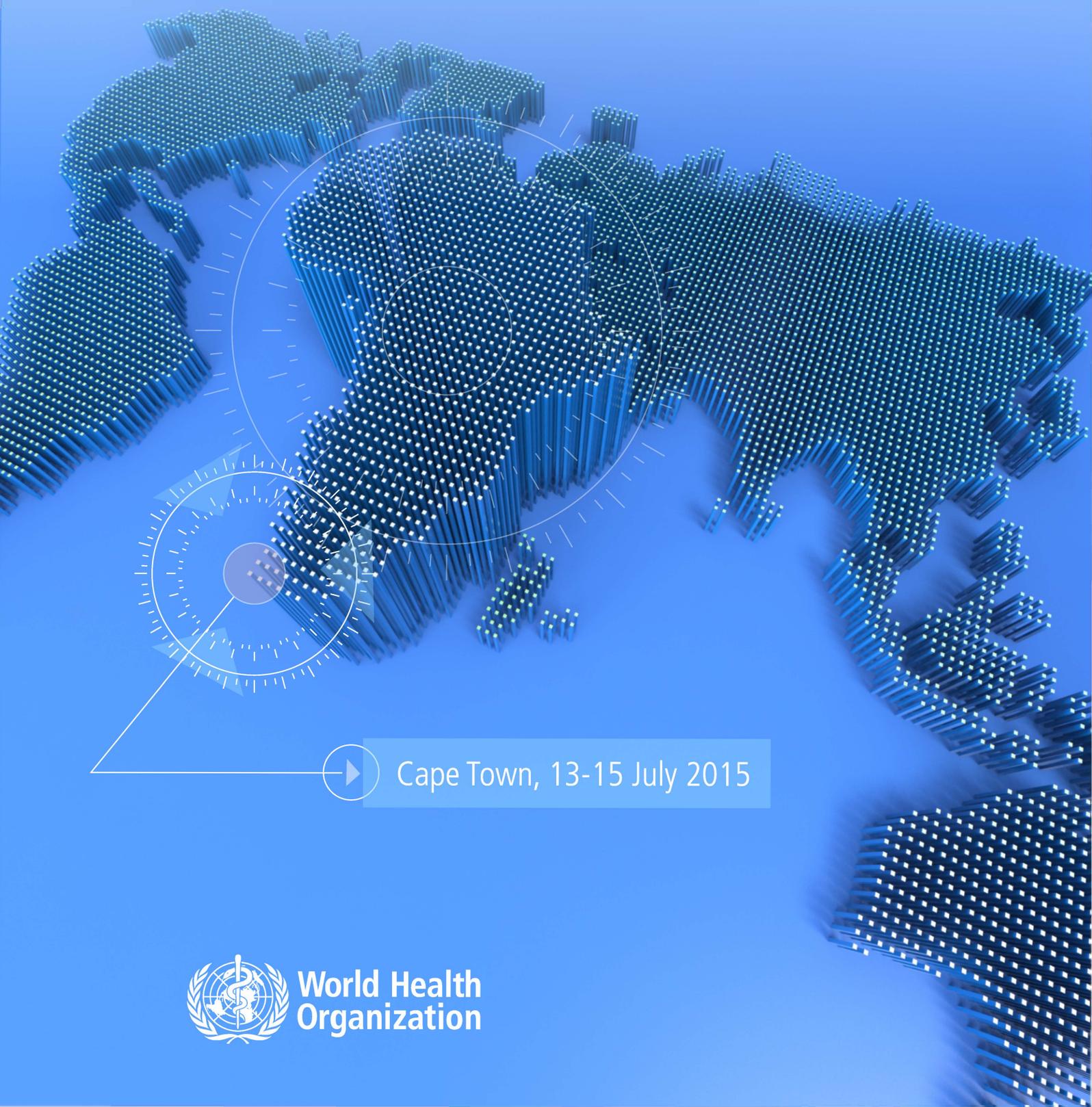


Building health security beyond Ebola

Report of a high-level meeting



Cape Town, 13-15 July 2015



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Organization

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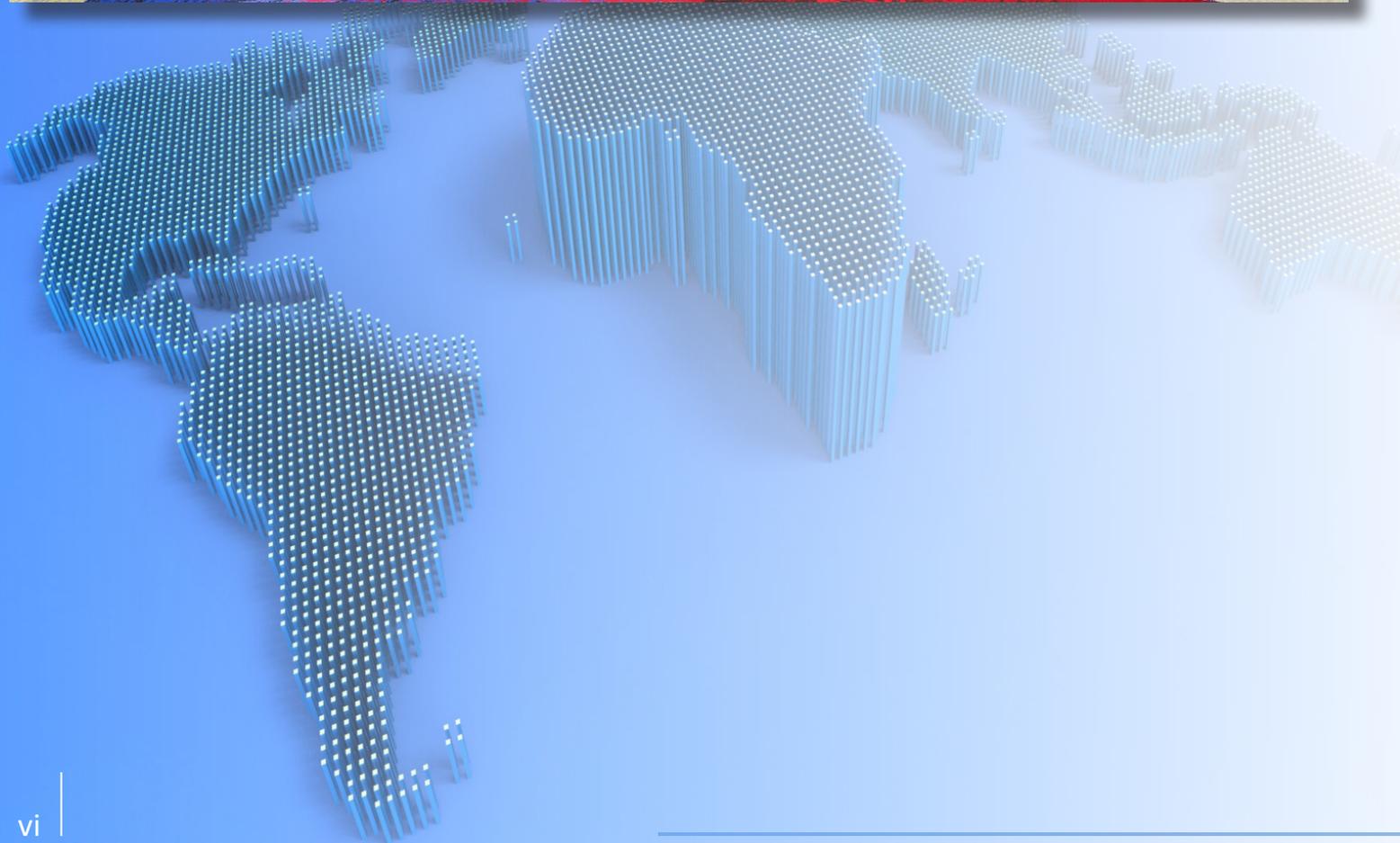
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Acronyms

AFENET	African Field Epidemiology Network	NGO	Nongovernmental organization
AMREF	African Medical Research Foundation	NHS	(United Kingdom) National Health Service
APEC	Asia-Pacific Economic Cooperation	OCHA	(United Nations) Office for the Coordination of Humanitarian Affairs
APSED	Asia Pacific Strategy for Emerging Diseases	OIE	World Organisation for Animal Health
ASEAN	Association of Southeast Asian Nations	PCR	Polymerase chain reaction
AU	African Union	PHE	Public Health England
CAPSCA	Collaborative Arrangement for the Prevention and Management of Public Health Events in Civil Aviation	SADC	Southern African Development Community
CDC	(United States) Centers for Disease Control and Prevention	SARS	Severe acute respiratory syndrome
CONOPS	Concept of operations	SOPs	Standard operating procedures
DEVCO	EC Directorate-General for International Cooperation and Development	UNMEER	United Nations Mission for Ebola Emergency Response
DFID	(United Kingdom) Department for International Development	UNWTO	United Nations World Tourism Organization
EC	European Commission		
ECHO	EC Humanitarian Aid and Civil Protection department		
ECOWAS	Economic Community of West African States		
EOC	Emergency operations centre		
EU	European Union		
FAO	Food and Agriculture Organization (of the United Nations)		
GHSA	Global Health Security Agenda		
HIV	Human immunodeficiency virus		
IANPHI	International Association of National Public Health Institutes		
IATA	International Air Transport Association		
ICAO	International Civil Aviation Organization		
IHP+	International Health Partnership		
IHR	International Health Regulations		
INFOSAN	International Food Safety Authorities Network		
JICA	Japan International Cooperation Agency		
MCH	Maternal and child health		
MERS-CoV	Middle East Respiratory Syndrome coronavirus		
MSF	Médecins Sans Frontières		



Executive summary

The high-level meeting on **Building Health Security Beyond Ebola** was convened by WHO and the Government of South Africa in Cape Town on 13–15 July 2015. It brought together over 200 participants representing Ebola-affected countries, other African countries, representatives from other Regions, global experts and institutions, and donor agencies.

The objectives of the meeting were:

- To review the status of current efforts to strengthen preparedness for Ebola virus disease, build IHR capacity, and strengthen health systems in Africa
- To reach consensus on critical concepts, relationships and processes needed to strengthen capacity for health security preparedness at country level
- To provide input to the development of a high-level road map that includes implementation
- To obtain specific commitments and identify the roles of partners, donors and relevant stakeholders.

Lessons and challenges from Ebola

Lessons highlighted included:

- Disease surveillance and safe essential services must be available and operational at community level
- Sectors outside the health sector may often influence health, negatively or positively
- Self-assessment of IHR capacity is insufficient; evidence-based tools are needed to assess countries' IHR capacities
- Strong national leadership is needed in outbreak situations
- Religious leaders and traditional healers who are respected in the community may be able to support responses
- A successful outbreak response can be the basis for improved future preparedness.

Challenges highlighted included:

- Many countries have insufficient trained health workers, especially outside urban areas

- Many borders are porous, with people frequently crossing from one country to another
- Provision of funding for the Ebola response was slow
- National authorities were often more concerned with protecting their national borders than helping others
- Some countries were reluctant to provide staff for the response in case they encouraged disease spread
- Many countries lack accurate assessments of their health needs
- The early stages of the international response to the outbreak lacked coordination.

Action points for WHO:

- WHO must assume an active coordinating, convening and monitoring role
- WHO should establish a contingency fund to support the initial response to emergency health threats until other funding can be obtained
- WHO should support the development of evidence-based tools for assessing IHR response capacity, and should evaluate existing tools
- WHO should develop guidelines for multisectoral responses to outbreaks.

National planning to advance IHR implementation

Points of consensus included:

- Coordination and collaboration—between WHO, government, aid partners and NGOs—are essential for an efficient outbreak response
- Laboratory facilities need to be strengthened and improved, and the creation of laboratory networks can help
- Ebola preparedness can also be a basis for improving preparedness for other diseases
- Sharing information (and potentially resources) between countries is essential; subregional country groupings may assist with this
- African community governance systems through village heads and elders should not be ignored but, where possible, should be enlisted in the response

- The response to Ebola could have been faster if rapid response teams had been available
- It is better to build on what a country already has than to try to set up something new during an outbreak response
- Any response must be multisectoral.

Action points for WHO:

- WHO should advocate that emergency responses to health threats should also be used as a platform for strengthening preparedness to prevent or deal with future outbreaks, including of seasonal diseases such as meningitis
- WHO should collaborate with regional and subregional bodies such as ECOWAS to develop systems for collecting, analysing, reporting and publishing data on groups of countries
- WHO should develop guidelines for the composition and deployment of rapid response teams
- WHO should develop and regularly update country health profiles to prepare rapid response teams for deployment
- WHO should develop online deployment training to complement the United Nations security training course.

Strategic elements for moving ahead

Points of consensus included:

- Different partners have different procedures for supplying funds; in emergency situations these procedures should be simplified or standardized
- Partners often operate in different ways, so the targeted action packages of the GHSA could help put focus on real country needs
- There is a lack of trust between countries and between communities and governments that is more acute during times of emergency
- People want to be involved in decisions being made about them and actions being taken
- More effort should be made to communicate with rural communities
- It is important that the IHR does not slip from the global health agenda when the Sustainable Development Goals are adopted.

Action points for WHO:

- WHO should strengthen its ability to coordinate emergency preparedness and responses to health threats
- WHO should use its position as coordinator to ensure that procedures for partner funding are simplified and, if possible, standardized

- WHO should ensure that countries in need of emergency assistance simplify entry requirements for international deployments, and especially rapid response teams
- WHO should develop a rapid system for deployment that ensures satisfactory insurance and employment conditions for persons deployed in response to health threats
- In periods when there is no crisis, WHO offices should establish relations with district health offices and, through them, with local communities, to ensure effective outbreak detection and response capacity
- WHO should advocate for continuing focus on the IHR as the international legal basis for health security preparedness.

From strategy to action

Points of consensus included:

- International responders should see the community and civil society as partners
- Twinning of countries is a promising long term approach to development
- The One Health approach should be encouraged at both national and local levels
- Data reported must be published and communicated.
- Laboratory capacity that was strengthened during the outbreak should be further built on and not neglected.

Action points for WHO:

- WHO should encourage adoption of the One Health approach, recognizing that animal health and human health are frequently linked and that animals cross borders too
- As coordinator of health assistance by partners, WHO should ensure that partnerships are long-term.
- WHO should develop a means to ensure that governments, partners and NGOs see each emergency response not only as a means to solve immediate problems, but also as an opportunity to strengthen health systems capacity.

Breakout groups

Points of consensus from the breakout groups included the following:

- Effective leadership is key to any outbreak response

- The inter-crisis period is the time to build relationships, and for partners to align activities with national priorities
- The crisis period is when you build on existing structures, not build new ones
- Early detection of outbreaks can be facilitated by community-based primary health care that is appropriately resourced
- Traditional customs that have a positive impact on health should be encouraged
- Positive messages about health should be used, rather than negative ones, and different partners should use the same messages
- The use of mobile telephone technology should be promoted for reporting data
- Countries should train suitable persons for rapid response teams
- Field epidemiology training programmes can help promote a multisectoral approach
- Countries should establish emergency operations centres, with steering committees to provide leadership in crises
- Emergency response training and drills should be conducted regularly.

Action points for WHO:

- WHO should establish links with field epidemiology training programmes, with a view to developing a cadre of field epidemiologists in each country
- WHO should also establish outlines for emergency response training and skills
- WHO should evaluate, with partners and the International Telecommunications Union, the viability of using mobile telephone technology to report health data from rural areas
- WHO should develop a manual of simple but positive health messages that can be translated into local languages
- WHO should develop and continually update guidelines for emergency operations centres
- In addition to ensuring coordination of partner activities, WHO should ensure that partner support is aligned with national plans
- WHO should negotiate with countries for the exemption of emergency medical and laboratory supplies from import controls
- WHO should develop a means of monitoring emergency responses so that gaps can be observed and lessons learned.

From action to delivery

Case studies of Senegal and Tanzania (both of which had received considerable assistance from a variety of partners) formed the basis for this part of the meeting.

Points of consensus included:

- Each country is different, so assistance must be targeted to each country's specific needs
- The GHSA is helpful in enabling countries to reach their IHR goals
- Border surveillance data are often lacking.

Action points for WHO:

- WHO should revise existing guidelines, and develop new ones as appropriate, on points of entry and cross-border surveillance.

Partner expectations

Points of consensus included:

- Ebola should be seen as a learning experience for the next health threat
- A multisectoral approach is vital
- The One Health approach is an essential part of development
- Human populations are not static but health systems tend to assume that they are
- WHO must be the leader, and coordinator, in emergency outbreak responses, but the organization must be properly resourced and equipped to do this
- The stability of the state is essential for effective health systems.

Action points for WHO:

- In light of current international reflection on its future role, WHO is urged to ensure that in any future outbreak response it is mandated, funded and equipped to act as rapidly and effectively as possible. It should then coordinate the efforts of all appropriate partners—including governments, the private sector and NGOs—to stop the spread of disease and to strengthen health system resilience to future threats.

Conclusion and next steps

South Africa's Secretary-General of Health closed the meeting by observing that it had enabled people to reflect at local, national, regional and international levels. Health security is not just about money, but also about commitment.

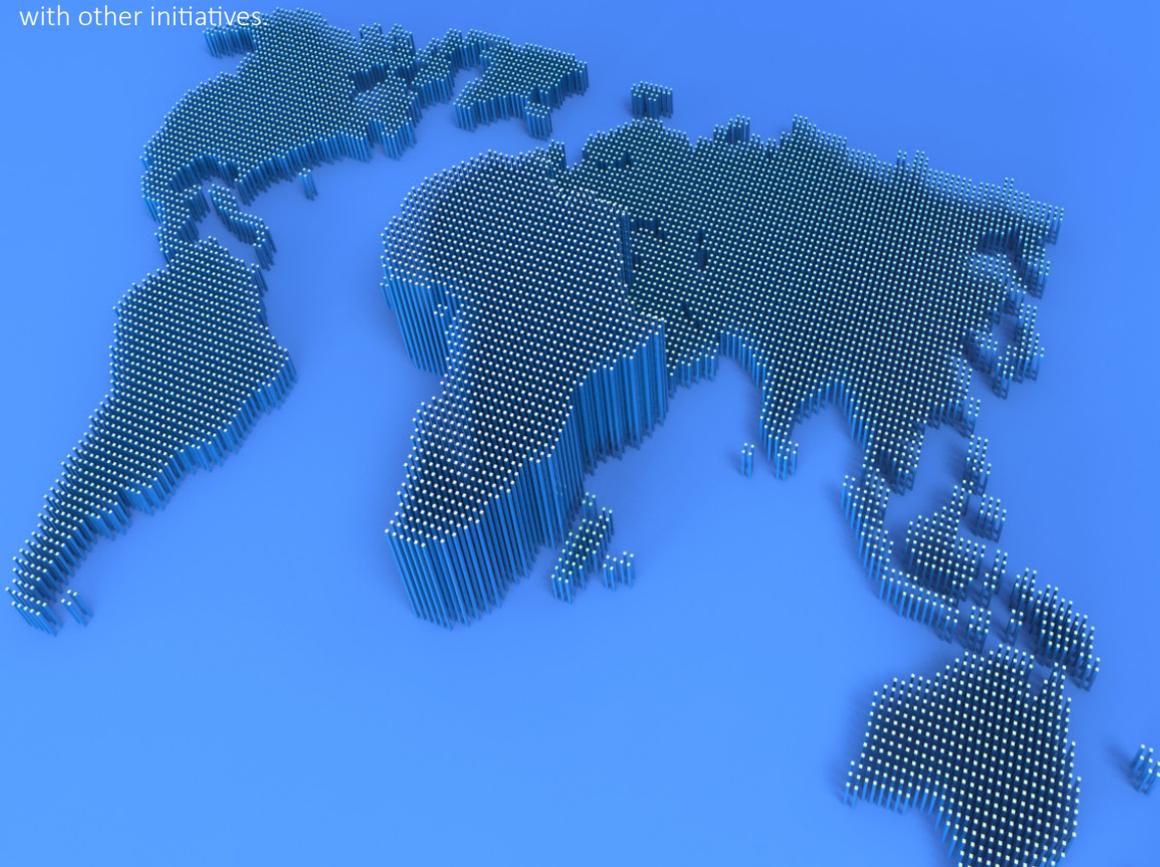
To spearhead global efforts, WHO is to propose a collective, coherent and synergistic approach among international and national stakeholders supporting joint assessments in countries; and to develop, implement, and test national plans.

This approach will be implemented, initially, over the next five years in Africa and other regions. The commitments made during the Cape Town meeting will be fundamental to this approach, and these include the following:

- Countries will commit to providing national leadership & sustained support and resources
- WHO will commit to an active coordinating, convening and monitoring role
- Partners will commit to working closely and actively with WHO and each other in sharing relevant information and in making their technical and funding contributions as complementary, synergistic and coordinated as possible with other initiatives

Immediate steps for WHO include:

- Begin piloting this approach in a few countries in Africa, while developing plans to broaden to other countries and regions as quickly as possible
- Develop a more detailed proposal, including a road map, reflecting the discussions at the Meeting and the experiences of Ebola preparedness missions
- Establish a Coordination Hub through an information portal, and strengthen WHO Country Offices so they can deliver what is expected
- Contact more partners at all levels, and within the UN system, to increase awareness and engagement.
- Global health security is all about strong health systems, and the most vulnerable countries are those with the least developed systems – many of which are in the African Region. With the full support and endorsement of partners, WHO is committed to intensifying efforts to meet the demands and challenges of an increasingly globalized world, and to tackle current and future health security threats.



Background

The 2014-15 West African outbreak of Ebola virus disease drew attention to deficiencies in systems for health security at national, regional and global levels. In Guinea, Liberia and Sierra Leone – the three countries most directly affected by the outbreak – health systems were insufficiently prepared to cope with a serious outbreak of infectious disease. In addition, WHO’s preparedness missions showed that the health systems of many Member States, both in Africa and in other regions, are insufficiently robust to overcome serious health threats. At the same time, the international response to the outbreak began late and lacked coordination, and WHO was particularly criticized in the global media for its own lack of rapid response capacity.

The International Health Regulations (IHR)—which were approved by all Member States of WHO in 2005 and which came into force worldwide in 2007—require all countries to have a set of “core capacities” to detect, report, respond to and prevent the spread of public health emergencies of international concern (PHEIC). Despite this, many nations still do not have these capacities, and weak health systems in countries worldwide have difficulty meeting even routine needs. It is accepted that major health threats will develop in the future, but without stronger national health systems and full implementation of the IHR core capacities, the world will be ill-prepared to deal with them.

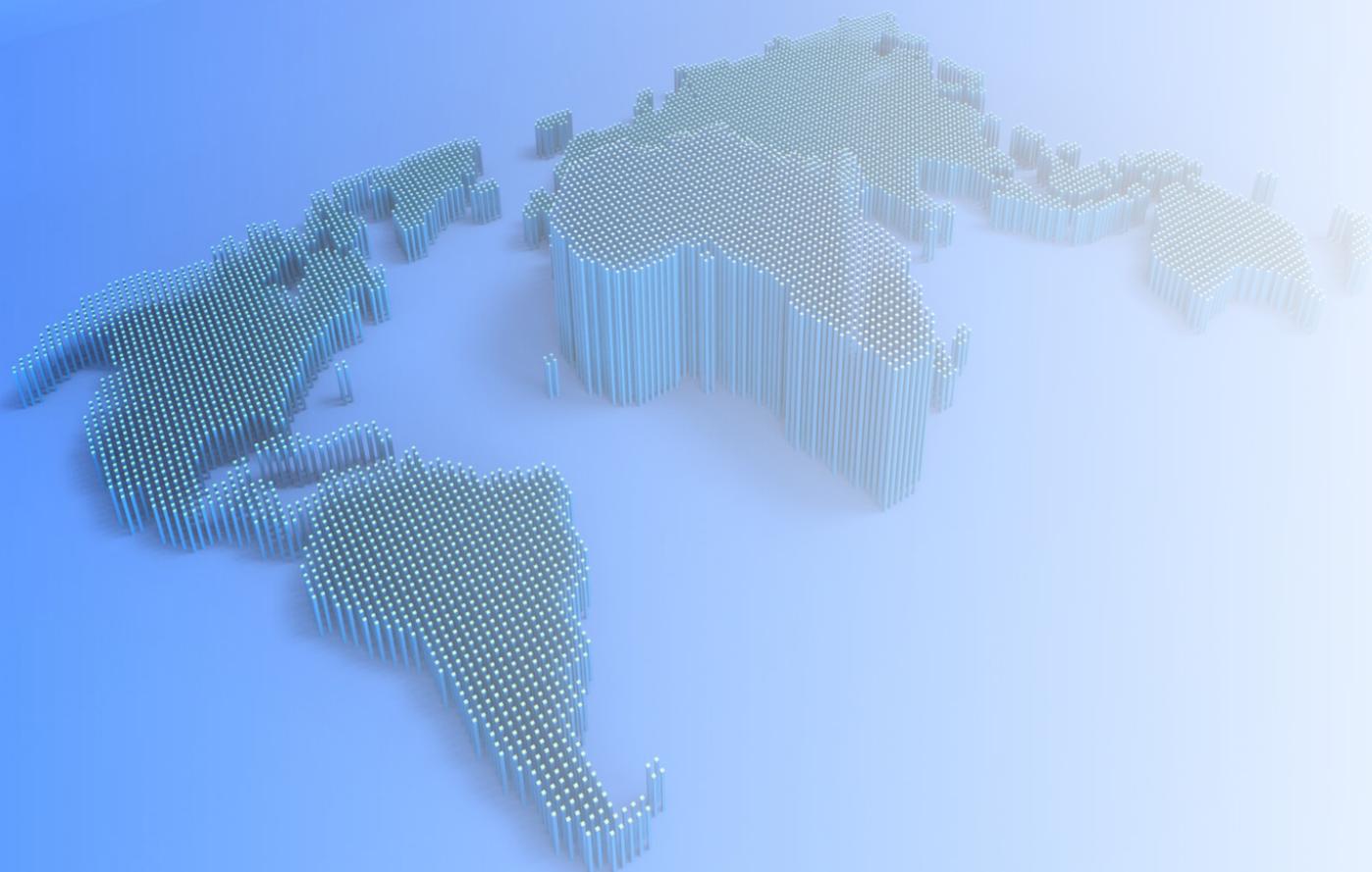
The **high-level meeting on building health security beyond Ebola** took place in Cape Town between 13 and 15 July 2015. It was convened by the Government of South Africa and WHO to encourage cooperative work between countries—and with WHO and other partners—in building preparedness for future health emergencies and thereby strengthening global health security. The meeting focused on sustained preparedness, with the overall aim of strengthening critical elements of health systems and IHR capacities.

The goal of the meeting was to bring together national, regional and international stakeholders to establish a common framework for action to support, coordinate and intensify the strategic development and maintenance of health security preparedness. In this way, stakeholders would build on achievements and lessons of recent Ebola preparedness efforts.

The objectives of the meeting were:

- To review the status of current efforts to strengthen preparedness for Ebola virus disease, build IHR capacity, and strengthen health systems in Africa
- To reach consensus on critical concepts, relationships and processes needed to strengthen capacity for health security preparedness at country level
- To provide input to the development of a high-level road map that includes implementation
- To obtain specific commitments and identify the roles of partners, donors and relevant stakeholders.

The meetings’ plenary sessions were organized as panel discussions that were then opened to the rest of the participants for further input, enabling the widest possible involvement of those present. In addition, breakout sessions resulted in a range of proposals for improved efficiency and effectiveness.



Opening

Ms Malebona Precious Matsoso, South Africa's Director-General of Health and chair of WHO's Executive Board, opened the meeting. She introduced the opening panel, and stressed the meeting's importance in establishing a common framework for action that would take into account the contributions of various actors.

Ms Matsoso drew particular attention to countries' IHR status and stressed that achieving effective global health security would depend on the commitment and collaboration of all stakeholders. Quoting Nelson Mandela, she said: "What counts in life is not the mere fact that we have lived. It is what difference we have made to the lives of others that will determine the significance of the life we lead."

Dr Keiji Fukuda, Assistant Director-General of WHO, said that the impact of Ebola in West Africa had caused tremendous harm to communities and disrupted the normal functioning of countries and regions. The Ebola outbreak occurred in the context of other infectious threats, such as Middle East Respiratory Syndrome coronavirus (MERS-CoV), several major disasters, and ongoing conflicts; but this is not unusual. The issue being faced is how countries can defend themselves from serious health threats—or help others to do so. The health security threats the world faces are becoming more damaging and more difficult to deal with, and no country or organization can address the strengthening of health security by itself. Dr Fukuda expressed the hope that, at the end of the meeting, all organizations and countries present would commit to work together to help the world prepare for future health threats. WHO would help bring all together to work towards the same goal.

Dr. Matshidiso Moeti, WHO Regional Director for Africa, emphasized the importance of sustained preparedness in facing joint security risks. While many countries do not have health systems robust enough to face serious health threats, such events can damage not only the health of individuals

but also the social structures and economies of countries. The world needs to pay greater attention to health security: it requires a common framework in which all stakeholders work together to strengthen health systems and build IHR capacities, addressing public health risks while avoiding overlap of effort. All countries should have a flexible surveillance system; a national emergency centre that functions as a hub; critical laboratory diagnostic capacities; and effective monitoring. This meeting should provide a picture of how all could work together.

Ambassador Olawale Maiyegun, Director of Social Affairs of the African Union (AU), greeted participants on behalf of the AU, its president Dr. Nkosazana Dlamini Zuma, and its chairperson, President Robert Mugabe of Zimbabwe. He acknowledged that many African countries lacked the IHR core capacities, and that resultant limitations had been seen in the Ebola outbreak. Health security depends not only on effective functioning of health systems, but also on financial systems and good governance.

The West African Ebola outbreak particularly exposed the shortage of human resources for health in Africa: the affected countries had only 40–50% of the health workers they needed for a resilient health system. Although the African Union (AU) deployed 800 health workers to assist in West Africa, it was difficult even to find this number. While all African countries pledged in Abuja in 2001 to spend 15% of domestic resources on health, hardly any had reached that target. Ambassador Maiyegun called for support for the AU's pharmaceutical manufacturing plan, since without access to medicines there can be no health security, and pointed out that the AU is ready to partner with WHO in the project to establish an African Centre for Disease Control. He noted, however, that there is a need for the UN to bridge the gap between Geneva and New York; after WHO announced a public health emergency for Ebola, it was 40 days before the UN Security Council took any action.

Dr David Nabarro, Special Representative of the United Nations Secretary-General, reminded meeting participants that the West Africa Ebola outbreak was not yet over—and it should not have been necessary for so many people to die as they did. The countries of the world should be ready when threats to health occur: they should have health workers prepared, along with facilities, cash and logistics. Dr Nabarro noted that prime ministers and presidents all over the world were saying that a health threat like the Ebola outbreak must never happen again; there is therefore a great deal of pressure from world leaders for those responsible for health systems and the IHR to improve global health security. To do better next time, the world needs a coordinated system that puts countries at its centre, and a modern form of quarantine that does not punish people, but rather provides incentives for them to isolate themselves.

Dr Päivi Sillanaukee, Permanent Secretary of the Ministry of Social Affairs and Health of Finland, cited the 2011 report of the IHR review committee that drew attention to the world's lack of preparedness for an outbreak. In 2014, the Global Health Security Agenda (GHSa) was set up in response, initially with 44 countries and organizations involved. The initiative has grown, and now includes donors and major nongovernmental organizations (NGOs). Dr Sillanaukee emphasized that, in order to prepare for a deadly outbreak of disease, it is essential to work across a range of sectors, and not just the health sector. Those sectors must learn to work together when there is no emergency, so that they might respond more effectively when one does occur.

The GHSa provides 11 “action packages”, with countries deciding which package(s) they can contribute to. An assessment tool based on the IHR has been developed in order to indicate the base level of national capacities and show where investment is needed. The assessment tool, which will eventually be made publicly available, produces results consistent with IHR requirements. The GHSa has a five-year plan that aims to help partners avoid overlap, and WHO's coordinating role will be very important in this respect. The GHSa aims to change priorities and re-allocate resources following the principle that health security must be an essential part of health systems, and not just an emergency service.

Ambassador Bonnie Jenkins, Coordinator for Threat Reduction Programs and U.S. Representative, Global Partnership, stated that the Ebola outbreak had elevated health threats to the highest levels of government. The USA would continue efforts to eliminate Ebola in West Africa and to counter MERS-CoV, and, along with the other countries and international organizations that are part of the initiative, held the GHSa to be a top priority. In 2014, G20 countries committed themselves to extinguish the Ebola outbreak and address its medium-term economic and humanitarian costs. In 2015, the World Health Assembly committed aid to at-risk countries, while the G7 committed support to 60 countries. The USA has pledged to support 15 countries, and is using the GHSa assessment to establish needs. Ambassador Jenkins stressed that activities must be synchronized for maximum effect. It is essential that countries should have a better, targeted assessment of their needs, so that both recipient countries and donors know what actions should be taken. Ambassador Jenkins emphasized the need for a multisectoral approach that would also include the security sector. The GHSa already includes the Food and Agriculture Organization (FAO) of the United Nations; Interpol; the World Organization for Animal Health (OIE); and WHO.

Lessons and challenges in strengthening IHR capacities and health systems for health security

Dr Victor Asare Bampoe, Vice Minister of Health of Ghana, took the Chair and introduced

Dr Socé Fall, Director of Health Security and Emergency of the WHO Regional Office for Africa, and **Dr Hans Kluge**, Director of Health Systems and Public Health of the WHO Regional Office for Europe.

Update on Ebola preparedness – Africa

Dr Fall referred to the report of the Ebola Interim Assessment Panel to the Sixty-eighth World Health Assembly, which stated that not only were health systems unready in the affected countries, but they were also unready in unaffected countries. Many IHR functions were not operational, and several were not adequately reflected in national health systems, while the situation was worse at district level, where the outbreak originated. There was poor coordination at all levels; poor community engagement leading to widespread distrust in health services; poor infection prevention and control in health facilities; and a shortage of healthcare workers (who were 21–32 times more likely to be infected than the general adult population). Dr Fall said the immediate aim for Ebola preparedness is that all countries ensure that they are operationally ready to respond to an Ebola outbreak, while the overarching goal is to strengthen implementation of the IHR and ensure that the core capacities are at the heart of strengthened health systems. In October 2014, priority countries in Africa were identified for intensified preparedness, with a focus on: developing tools and guidance (using an Ebola preparedness checklist covering 11 components considered essential for country readiness); providing technical assistance; strengthening human resources and equipment stockpiles; and monitoring (including partner coordination at country and international levels). Dr Fall noted that some countries are still very far from full implementation of the IHR core capacities. So far, 41 non-affected countries have been surveyed in Africa, and preparedness steps have been taken in other regions.

Update on Ebola preparedness – Europe

Dr Kluge said that all 53 Member States of the WHO European Region had taken part in a European preparedness exercise, conducted jointly with the European Union (EU) in the EU countries. Ebola preparedness activities involving multisectoral approaches were integrated into preparedness for cross-border threats. The WHO European Region has a “Health 2020” policy framework, one of the priorities of which is the creation of supportive environments and resilient communities, while also encouraging intersectoral approaches for health—all essential elements for strengthening health security. Disease surveillance and safe essential services are at the heart of strong district health care and, while sources of hazards (natural, technological and societal) vary, the challenges to the health system are similar. This “whole-of-government” approach acknowledges that many of the main influences on health are outside the health system. Dr Kluge stressed that even the best health systems depend on the motivation of health workers and the trust of the community; but there has to be consistent national planning and engagement.

In Europe, WHO takes a multihazard approach with a clear command system chaired by the Regional Director. It is essential to have explicit links between IHR core capacities and the health system – for instance, in joint work on surveillance, information, laboratory services, the health workforce, and health service delivery. Nevertheless, it is clear that in all WHO regions there are countries with a need for adequately funded core capacities and resilient health systems; and, since IHR core capacities are self-assessed and self-reported, there is a need for evidence-based assessment tools to demonstrate true response capacity. There is also a need for a single workflow involving all partners, as well as strong country leadership to build and test priority capacities and systems in line with national plans. The next meeting of the WHO Regional

Committee for Europe will receive a progress report on health system strengthening and health security.

Dr Bampoe then introduced the panel of speakers from **Nigeria, Mali, Benin** and **Côte d'Ivoire**.

Building on a successful response

Mrs Olubunmi Eytayo Ojo, Director of Disease Surveillance and Notification/IHR of Nigeria, said that the Nigerian response to Ebola began when an infected traveller from Liberia arrived in Nigeria in July 2014. The Nigerian outbreak was declared finished in November 2014. Mrs Ojo said that Nigeria had a preparedness plan but faced a number of challenges such as overcrowded megacities, large slum areas, high numbers of workers from neighbouring countries, and the presence of foreigners in oil-producing areas. In addition, when the outbreak was declared, medical workers were on strike. Mrs Ojo said that success was due to national leadership during the crisis; a timely and coordinated response based on best practices learned in the polio eradication campaign; and community involvement in social mobilization helped by expert messaging. The president declared a national emergency and set up a national emergency committee that had subgroups working on areas such as community, epidemiology, points of entry and disease management; WHO was officially requested to provide assistance, and incentives were introduced to get medical staff back to work. The Ebola virus was tested in two leading laboratories. Traditional and religious leaders were involved in sensitization and promotion of hygiene practices. Mass gatherings were discouraged, and the mass media kept informed of progress. Public announcements on Ebola were limited to those by the Ministry of Health.

Cross-border collaboration and initiatives

Professor Mamadou Souncalo Traoré, Director General of Mali's National Institute for Research in Public Health, said his country of some 16 million people is large and borders seven other countries—an important issue in terms of the IHR. The first Malian Ebola alert came from Nigeria,

when it was thought that a Malian group that had visited Nigeria might have been in contact with an infected Liberian person there. The authorities in Mali took preventive measures; the group was met at the airport on their return and given medical checks. In October 2014, a two-year-old child died of Ebola in the northwestern city of Kayes, having been brought there from Guinea; over 100 contacts were traced and the contact tracing was completed in November 2014, with no further cases discovered. In November, a second unrelated outbreak occurred in Bamako, where several people at a clinic were thought to have been infected by a man travelling from Guinea. On 18 January 2015, Mali was declared Ebola-free. Professor Traoré pointed out that Mali's border with Guinea, like the country's other borders, is porous, with many people crossing where there are no controls. The health ministers of Guinea and Mali put measures in place to ensure health checks at border crossings, including those between Senegal and Mali. These joint efforts entailed frequent meetings and consultations, which in turn led to coordination of border control procedures. It was noted that it was very important to maintain trust with local communities, since many families had members on both sides of the border.

Subregional initiatives

Dr Christian Chaffa, Adviser to the Minister of Health of Benin, said that the Ebola epidemic exposed the limitations of the health systems of sub-Saharan African countries, and stressed the need for West Africa to strengthen subregional initiatives to promote cooperation and coordination. In 2010 the ministries of health of Benin, Burkina Faso, Togo and other countries in the region met to address common challenges and make commitments to deal with them; these related to infectious diseases and other health emergencies, such as floods, that are common in the region. This meeting engendered further meetings and, when Ebola threatened the three countries, the Economic Community Of West African States (ECOWAS) deployed staff in response and provided other assistance. Dr Chaffa noted that subregional cooperation can lead to sharing resources, including human resources, in times of urgent need, and is also important for investing in prevention.

Awareness-raising and community engagement

Professor Dagnan N'Cho Simplicie, Director of the National Institute of Public Hygiene of Côte d'Ivoire, said his country bordered both Guinea and Liberia, as well as Burkina Faso, Ghana and Mali. When the outbreak was announced in the neighbouring countries, the Ministry of Health called an emergency meeting and raised awareness throughout the health services within a week, then set up an emergency committee to coordinate activities. Medical checkpoints were established at main border crossings with affected countries. Partners were active in supporting national efforts. Sensitization efforts included messages in the press and on television and radio. A telephone call centre was set up, and received around 750 calls per month. Religious leaders joined in community sensitization, promoting hygiene and safe behaviour, and messaging at large gatherings emphasised hygiene and infection prevention. Professor Simplicie felt that community support was achieved. However, he noted that after more than a year, and with the threat of Ebola fading, people were becoming less vigilant, and there was a need to renew awareness campaigns.

Points raised in discussion

During the plenary discussion, participants raised a variety of issues and made a number of comments. For instance:

- Despite a World Health Assembly resolution on the health of migrants in 2008, the Ebola outbreak showed national authorities were often more interested in protecting their own citizens.
- The IHR seem to focus on controls at air-ports, ports and major crossings rather than on porous borders. There is a need for more attention to these borders, and to persons who regularly cross from one country to another.
- Nigeria's media briefings were held only by the national Ministry of Health. Nigerian states have devolved responsibility for health, but because Ebola was declared a national emergency, the central government took over responsibility and made all official announcements.
- Medical staff are much more evident at West African airports than they used to be.
- The airline that carried the Liberian man with Ebola to Nigeria delayed releasing the relevant passenger manifest, which hindered contact tracing.
- When the outbreak occurred, not only was the general population frightened, but health workers were also terrified, because they knew they would be at greatest risk.
- In Mali, advisory messages were drafted by a special government information service and were translated into local languages for use at border crossings. Training workshops on Ebola were organized for traditional healers, whose aid was enlisted to promote hygienic practices.
- The use of the existing polio network as a basis for the Ebola response was considered valuable. It was suggested that HIV networks might also be used.
- The African Field Epidemiology Network (AFENET) presented its experience in trying to organize deployments to the affected countries. Insurance was arranged through the AU, but some countries refused to allow their staff to be deployed, as they might be needed at home if Ebola spread.
- Ghana described its preparations for Ebola and expressed gratitude for the benefit of Nigeria's experience. In particular, this had helped Ghana establish a clear command structure.

- Sierra Leone said that if countries had cooperated and pooled resources when the outbreak was first found in a remote forest zone of Guinea, they could have contained it there.
- Many speakers emphasized the importance of having national governments take the lead in outbreak response.
- The importance of inter-country initiatives was raised. These have become more standard, and should be able to react better in a future outbreak. For instance:
 - The Accra–Lagos corridor, which includes several countries, has a lot of travel and trade, and it was reported that there is now coordination of health activities along this route
 - ECOWAS reported that it had convened a meeting of health ministers when the outbreak occurred and had worked to sensitize the region. ECOWAS has historic focus on health issues, and founded the West African Health Organization.
- Fundraising was initially slow, but gradually more funds became available for scale-up.
- Several speakers mentioned the desperate need for human resources for health in their countries. Despite recruitment during the outbreak, the situation remains fragile and there is no solid basis for capacity building.

Film: *Body Team 12*

A documentary film called “Body team 12” was screened, portraying the daily challenges faced by a team of body collectors during the West African Ebola outbreak. The film was shown courtesy of the Paul Allen Foundation.



National planning to advance IHR implementation **1**

Dr David Nabarro took the chair and introduced panel members from Niger, Burkina Faso, Senegal and Mexico.

Experience from detecting and responding to public health events

Dr Idrissa Maiga Mahamadou, Secretary-General of the Niger Ministry of Public Health, said that his country faced major difficulties with armed groups (including Islamic fundamentalists), epidemics and environmental problems (such as flooding leading to cholera outbreaks). Niger is in the meningitis belt, and the last meningitis season caused 8,000 deaths, but Ebola became a main concern in 2014 because of outbreaks in neighbouring countries. The government therefore set up an interministerial committee of 13 departments under leadership of the Prime Minister, which was used for meningitis and Ebola; however, the committee met only when there were major decisions to be taken. A technical committee working at national, regional and local levels took up issues relating to meningitis, including vaccination, and had weekly meetings. Challenges included ensuring that services were in place and that laboratories were able to function (there is a network of meningitis laboratories led by national laboratories). Another group worked on developing a robust surveillance system, including community-based surveillance. This group reported every day to WHO and other partners, helping strengthen collaboration. There was a shortage of vaccine, but increased demand. It was pointed out that NGOs often respond to outbreaks before national services; but that NGOs sometimes make public statements causing fear in the population, and indicating the need to strengthen risk communication. Niger takes a multi-hazard approach because the country faces many different hazards.

Approaches and tools for surveillance

Dr Isaie Medah, Directeur de la Lutte Contre la Maladie, Ministry of Health, Burkina Faso, listed multiple threats to health in his country, including meningitis, cholera, HIV and floods. In line with the IHR, Burkina Faso put in place an integrated disease surveillance and response system in 2012; campaigns against meningitis began the same year, and in 2014 Burkina Faso was able to send personnel to Niger to assist with efforts against the epidemic there. Filariasis remains a problem, as does chemical contamination. The country has a sentinel surveillance system and surveillance training is being carried out in health centres. There are specific surveillance tools for animal health, and a network of diagnostic laboratories sending data to a central laboratory. Point-of-entry surveillance was begun at two airports and 42 major border entry points as a result of the Ebola crisis, but the country still needs stronger laboratories and surveillance. The current surveillance system can detect Ebola, but samples have to be sent elsewhere for confirmation.

Strengthening laboratory networks

Dr Iyane Sow, Director of Laboratories of Senegal, spoke about the strengthening of laboratory networks. Senegal has a national network of laboratories under the auspices of the Ministry of Health, but which is independently managed; the network includes the national public health laboratory, national hospital laboratories, and regional laboratories, and is backed up by manuals and a website on laboratory techniques. There is, however, a shortage of resources, and the Senegalese laboratory network plans to take advantage of a subregional network of

laboratories being established by the Mérieux Foundation and the French government. Since a number of different ministries are responsible for laboratories, there is a need for closer collaboration (for example, between health laboratories and veterinary and food-related laboratories). There is a Pasteur Institute laboratory in Dakar that is a WHO Collaborating Centre, and which deals with haemorrhagic fever; this laboratory has the capacity to detect Ebola. There is also a university laboratory that can do genomic sequencing. Overall, however, Senegal faces a shortage of trained laboratory personnel and investment. Dr Sow stressed the need to take advantage of international possibilities for laboratory strengthening, and to collaborate with other sectors, particularly in the context of One Health. There is an additional need to pay constant attention to quality assurance in laboratory work.

Integrating the International Health Regulations and health-system strengthening

Dr Yanet Fortunata Lopez Santiago of Mexico said that the Mexican Constitution guarantees the right to health of all citizens. Continuous institutional strengthening is seen as essential to preparedness, and the Ministry of Health is authorized to coordinate other systems in the face of a PHEIC. Activities related to IHR core capacities are covered within the health system, and preparedness activities facilitate IHR compliance. Implementation of core capacities is the responsibility of all sectors, not just the health sector.

Points raised in discussion

During the plenary discussion, issues raised by participants included:

- The importance of coordination and collaboration.
- Concern about the dangers of poor preparation – as in the case of Benin, which managed to eliminate strain A meningitis but which recently experienced an outbreak of strain C and was short of vaccines for that strain.
- The importance of sharing information with other countries: while Benin had only 12,000 doses of vaccine for strain C, Mali was able to supply more.
- The need to strengthen surveillance. It was said that this was often the least funded element of Ministry of Health budgets.
- On the issue of reporting, a participant who had been an IHR focal point said that information about outbreaks does not necessarily reach national focal points, and, if it does, permission has to be sought to transmit it outside the country.
- The importance of investment in human resources.
- General support for the view that operations cannot be run from Geneva, New York or Atlanta; nor can they really be run from a capital city. West Africa has community governance systems through village heads and village elders, and these are the persons to whom local people will listen.
- While the idea of having an emergency operations committee met general favour, there is no point in setting up committees that do not meet. In an outbreak, one needs fewer committees and quicker decisions.
 - The idea of rapid intervention teams.
 - Communication issues, and the need to prevent rumours and misinformation.

National planning to advance IHR implementation **2**

Dr Nabarro introduced another panel, this time from Liberia, Thailand, Indonesia and the USA.

National coordination mechanisms in support of national plans

The first panellist was **Dr Peter Clement** of the WHO country office in Liberia, representing the Liberian Ministry of Health. Dr Clement said that the country had experienced three distinct outbreaks of Ebola so far; during the first outbreak, coordination was at different levels, but really worked only at district level. During the second wave, which was unprecedented, it became clear that the national task force could not cope. Consequently a new committee was established at Presidential level, enabling the government to deal with the next outbreak more effectively. As a result, County Heads—appointees of the President—were given responsibility at county level, and District Commissioners became responsible at district level, though all were working within the context of one national strategy and plan. The County and District Heads also helped enlist the support of local Members of Parliament, laying the foundation for more buy-in at local level. Dr Clement concluded that government leadership and commitment is essential, as is community engagement. The government managed to get all ministries involved. The question now is whether this system can serve as a framework for building IHR core capacities.

Experience of developing multisectoral health security

Dr Suriya Wongkongkathep, Deputy Permanent Secretary of the Thailand Ministry of Public Health, spoke about the need for multisectoral health security in a world faced with severe health threats. Thailand hosted an Association of Southeast Asian Nations (ASEAN) meeting on Ebola in December 2014, and would soon run a teleconference on MERS-CoV. Dr Wongkongkathep noted the importance of field epidemiology

training programmes that began 40 years ago, and said that epidemiology plays a major role in health security in Thailand; Thai epidemiologists have trained colleagues from other ASEAN countries. While field epidemiologists tend to be medical professionals, the rapid response team tends to consist of nonmedical staff, and meetings between the two groups are held annually to build relations between them. Thailand also emphasises multisectoral collaboration, especially between the health, food and environment sectors, which have a coordinated surveillance network linked to rapid response. Outbreak-related communication skills are also being strengthened.

Coordination during health emergencies

Brigadier General Dr Ben Yura Rimba of the Indonesia Defence University described Indonesia's four-level system of response to outbreaks. The country has no experience of Ebola, but a lot of experience with SARS and influenza, and takes a multisectoral approach, with coordination between ministries. Indonesia has three coordinating ministers for coordination with all international agencies, as well as four national agencies for specific areas of emergency response, and a national diagnostic commission. There is a system of alerts for international disease risks, with emphasis on public communication. Under the Ministry of Health there is a national health crisis centre; under the Ministry of Defence there is a two-star general position for all hazards; and under one of the defence forces there is an incident command system. Every three years, the three emergency response bodies meet for training exercises and simulations. Most of this work is done under the auspices of the WHO country office. Currently Indonesia is concerned about the risk of MERS-CoV, since some 2 million Indonesian pilgrims travel to Saudi Arabia each year. An email discussion group of senior officers responsible for emergency response facilitates communications, as does a WhatsApp group. Indonesia is also a member of the GHSA, which Dr Rimba described as an accelerator for the IHR.

Multi-stakeholder coordination

Ms Maureen Culbertson, Senior Advisor at the Centers for Disease Control and Prevention (CDC) of the USA, described a changing dynamic in which emerging health threats were becoming more frequent, and damaging economies and societies. Similar to the *3 by 5* initiative promoting antiretroviral medicines for persons with HIV, the GHSA is an attempt to speed up actions such as IHR compliance. The Ebola outbreak had shown what worked well and what did not, and the GHSA is working to prepare the world for another outbreak; but global coordination is difficult. Ms Culbertson called for more effective leadership, with host governments recognizing their responsibility to take their citizens' health seriously and protect their economies. National committees on Maternal and Child Health (MCH) and AIDS had shown that they can move issues forward, and the same can happen for health security. The USA has promised to support 30 countries through the GHSA by 2019.

Points raised in discussion

During the plenary discussion, issues raised by participants included:

- The need for further emphasis on effective leadership and the importance of coordination involving more actors at national, regional and local levels.
- Maintenance of leadership commitment through governance changes, whether by a military that has removed a dictatorship and replaced it with a civilian government based on merit, or by a government being held to account by the people.
- The GHSA as a multi-stakeholder movement in which people with specialisms work together to achieve common goals.
- The involvement of the private sector and the military, which brings new skills and resources to health security preparedness. The private sector will lose income, market share, customers and personnel if health threats are not overcome.
- Preference for building on what a country already has, rather than setting up something new.
- Communities are stakeholders and must be engaged in decision-making. They need to understand issues, and be participants in what is going on. Community members can help design approaches that reach others in the community.
- As well as coordination, monitoring should also take place at local level.
- The importance of building flexible public health systems, such as those created for polio that can now also be used for Ebola.
- The fact that one country's health system is only as strong as that of the next country—so multicountry coordination is vital.
- A call to invest in health workers, the most valuable resource in the face of health threats. There is less investment in human resources than in other areas of health.
- There is no incentive for governments to declare a PHEIC under the IHR. Médecins Sans Frontières (MSF) warned of Ebola early in the outbreak, but were ignored until it was too late.

Key strategic elements for moving ahead

Dr Brian Evans, Deputy Director-General of the World Organisation for Animal Health, took the chair and introduced WHO's **Dr Keiji Fukuda**.

Dr Fukuda stated that health risks and emergencies are becoming larger and more difficult for a range of reasons – partly because of travel and trade, but also because the media (including social media) spread news and anxiety quickly and widely. There are international and regional support mechanisms but, despite progress, countries—and the world—are insufficiently prepared. There is consensus that something must be done to speed up health security preparedness, but what is the best way forward? The task of managing Ebola, MERS-CoV, antimicrobial resistance and people's health needs in prolonged conflicts has become overwhelming. Baseline health systems are weak, with insufficient sustained support in countries, insufficient coordination between external partners, and inadequate processes to assess IHR capacities. WHO has seen from its assessment missions that it has overestimated national capacities and that a more active, inclusive, participatory and objective process is needed.

However, there are major changes and promising new initiatives in health security. The GHSA is significant in combining political engagement, support and concrete action packages. Any successful multipartner initiative must integrate existing major initiatives to achieve its goals, and at national level government ownership and leadership make a major difference.

For the future, Dr Fukuda proposed a five-year multistakeholder initiative aimed at achieving national and global health security. The strategic focus should be on strengthening health systems and capacities needed to ensure implementation of the IHR for the most important risks and crises. Such an initiative should be able to operate at international, regional and national levels. For the first two levels, coordination and alignment of partner initiatives would be needed to make them as complementary as possible, and to ensure that

all countries needing assistance would receive it. At national level, effective leadership would be needed, along with common goals and principles, with flexible country-adjusted implementation. All stakeholders would need to be clear about their respective roles, responsibilities, commitments and accountabilities. He proposed that such an initiative should be started in Africa, and should be expanded to other regions as soon as possible.

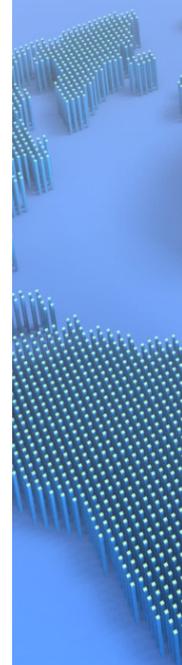
Dr Evans noted that Dr Fukuda's remarks indicated acceptance that, while there is recognized value at strategic level (WHO), it is important to ensure that things can happen properly at local level.

Points raised in discussion

Following the presentation, comments included the following:

- Community involvement is the key to successful health security, coupled with bringing health workers on board and valuing their contributions.
- It is not always easy to take an active role in supporting an outbreak response. For example, it was reported that many Ghanaians were angry at the president of Ghana for allowing planes to fly aid to the Ebola-affected countries from Accra, and for permitting Ebola vaccine trials in Ghana where there was no Ebola.
- There were reports of difficulties in obtaining financial resources for the Ebola response, as it took a long time to receive funds. This was explained by the fact that partners had different procedures; in response, it was suggested that, especially in times of emergency, partners should simplify procedures and bring them in line with each other.
- Partners are there to help in a public health emergency; though they have different procedures, they should work together in the same way.
- Dr Fukuda emphasized the importance of trust, which he described as the single most precious resource in the world. People want to understand what is going on and they want to be a part of the decisions being made and the actions being taken.

- Not all people have the skills to negotiate at political level *and* the skills to negotiate at local level. Being scientifically accurate does not help if communication does not work and the community does not believe you.
- Science has increased differences between countries.
- Africa needs processes that give Africans access to knowledge, so that African countries can manage difficulties themselves.
- The Sendai Framework for Disaster Risk Reduction 2015–2030 stresses the importance of the IHR in reducing the impact of outbreaks.
- Health security is not included in the post-2015 security agenda.
- Several participants stressed that it is important that the global health agenda prioritize the OHR.



Keynote address

The keynote address was delivered by **Dr Aaron Motsoaledi**, Minister of Health of South Africa. Noting that the meeting was called to agree a common framework for the future, he expressed the hope that its discussions and agreements would bring humanity closer to a safer Africa and a safer world. However, he pointed out that there are still challenges ahead, including Ebola and MERS-CoV, the latter having jumped species and spread from the Middle East to other parts of the world.

Dr Motsoaledi described some of the global health objectives being pursued in South Africa, including universal health coverage, setting up a public health institute, achieving the IHR capacities, establishing a laboratory with biosafety and biosecurity, and pushing to reduce antimicrobial resistance. South Africa's National Development Plan—"Vision 2030"—aims to reduce levels of child mortality, HIV, tuberculosis and violence. Tuberculosis is currently the leading cause of HIV deaths in South Africa, killing 80% of HIV-infected persons. South Africa is also moving towards a considerable increase in the number of people on antiretroviral medicines by 2016. A resilient health system is important for health at all times, and especially during crises.

South Africa's contributions to the Ebola response included provision of a mobile laboratory and deployment of personnel to affected countries. South Africa identified and trained key staff for a number of roles in case of a domestic outbreak, and hosted Ebola preparedness training for staff of countries in the Southern African Development Community (SADC). South Africa continues to support global health security and, as a partner in the GHSA, is involved in several action packages. South Africa is leveraging resources across different sectors to accelerate progress towards full IHR compliance.

Mr Peter Graaff, Acting Special Representative of the United Nations Secretary-General and Head of the United Nations Mission for Ebola Emergency Response (UNMEER), took the chair, pointing out

that lessons from Ebola can become examples when combating other infectious diseases. It is important to see the community and civil society as partners: they are in the middle of the situation, and they stay there after others leave. Health security should involve everyone who can help, including the private sector – not just for the sake of money, but because the private sector is a significant part of society that can play a role in helping keep it safe and building it up again after an outbreak or disaster.

Mr Graaff introduced the session's panelists from Norway, the FAO, the Bill & Melinda Gates Foundation, and Japan.

IHR implementation and country support

Dr Line Vold of the Norwegian Institute of Public Health summarized Norway's Global Health Preparedness Programme. She stressed that Norway supports WHO efforts to strengthen IHR capacities and health systems in all countries, and that the IHR are an important tool for guiding capacity strengthening. The Preparedness Programme was developed in recognition of the importance of "horizontal" health system strengthening, and focuses on twinning with other countries to work on preparedness, surveillance, laboratory capacities and other areas under the IHR. Where necessary, the programme starts with a baseline assessment of the status of core IHR capacities. Planning for the five-year duration of the project is carried out in partnership with twinned countries (eventually 4–6 of them). So far such twinned projects are under way with Malawi, Moldova and Palestine, and a partnership with Ghana is under discussion. Programme activities are aligned with the GHSA, with strong collaboration with WHO and the International Association of National Public Health Institutes (IANPHI), and in consultation with CDC, Public Health England (PHE) and Nordic public health institutes. The twinning process has so far proved to be a successful model for cooperation in this area.

One Health and tripartite collaboration

Dr Gabriel Rugalema of the FAO drew attention to the fact that public health specialists have little contact with animal health, even though many diseases (including Ebola and MERS-CoV) derive from animals. There is collaboration between FAO, OIE and WHO that aims to facilitate discussion and joint work between these agencies. The three agencies share information through the International Food Safety Authorities Network (INFOSAN). The tripartite arrangement works well at international level, but needs to be made to work at national level too. Dr Rugalema urged countries to adopt such tripartite approaches to disease and health. Most outbreaks happen in rural areas and may be difficult to access. Last year, through the Tripartite Collaboration, extension workers who live in villages in Sierra Leone were trained to tell people of the importance of washing with soap, and to separate sick people from others. Before the Ebola outbreak there were only five veterinarians in Sierra Leone with millions of animals, and there is no veterinary laboratory there. He stressed the need to encourage the One Health approach at local levels, since to ignore it means much of the problem will be overlooked.

National surveillance capacity building

Mr Sreeram Krishnamachari of the Bill & Melinda Gates Foundation said that accurate, timely data are needed to guide responses in an emergency. An effective response requires community and hospital reporting, effective diagnostic laboratory capacity, the ability to publish and communicate data, and a trained and equipped workforce; but workforce retention is a problem in many places. While Ebola in West Africa took 11,000 lives, many thousands more, many of whom are children, die of disease every year. The Gates network programme for children's health, CHAMPS, contributes to achievement of the IHR: one main pillar is community engagement; another is innovation (e.g. new diagnostics and public-private partnerships); and another is strong project management. The programme, which is to be run in six sites initially, is being run by IANPHI in

collaboration with CDC and others, and is looking for further partners. Mr Krishnamachari urged more cooperation in global health security, and drew attention to the fact that the programme provides a job for staff with emergency response capacity built in. In West Africa, many helpers in the epidemic were going back to day jobs or—in many cases, to no jobs at all.

Strengthening laboratories in Africa

Dr Ritsuko Yamagata of the Japan International Cooperation Agency (JICA) described JICA's support for strengthening laboratory capacity in Africa. Japan's laboratory assistance to Ghana, Kenya and Zambia already dates back several decades and has covered both infrastructure building and capacity building. Since these laboratories increased capacity and raised standards, they have been serving other countries too, as well as conducting research with laboratories in other countries (including Japan) as equal partners. Examples of current research include investigations related to Rift Valley fever, viral haemorrhagic fevers and yellow fever. Japan found that its support to these laboratories also helped it acquire new knowledge that otherwise could not have been obtained. Mr Graaff commented that laboratory capacity had been built up to some extent in West Africa, and that now was the time to build on it, there and elsewhere.

When the discussion was opened to the plenary, **Dr José Angel Portal**, Cuba's First Deputy Minister of Public Health, addressed the meeting. He said that the health is a priority in Cuba, which has one doctor for every 130,000 inhabitants and a ratio of nurses to general population greater than in much of the developed world. Cuba is experienced in international collaboration, with Cuban doctors and nurses having worked in over 60 countries; has trained over 3,000 doctors from African countries; and sent medical specialists to West Africa to assist with the Ebola response. Cuba remains ready to deploy medical personnel in countries that need assistance, and believes international cooperation is key to ensuring safety in other countries—and, through that, ensuring safety in Cuba.

Points raised in discussion

Comments from participants included the following:

- It was noted that all panellists said that partnerships must be for the long term.
- The valuable contribution of community health workers should not be forgotten. The African Medical Research Foundation (AMREF) stated that in East Africa, community health volunteers are recognized as level 1 of the health services. They show great ability to recognize development of different diseases, yet they remain unpaid.
- There is a need to learn from both HIV and Ebola and to bring together what we have learned in order to improve community cooperation.
- Several participants expressed support for twinning programmes, such as those being organized by Norway, and urged that these be extended to other countries.
- Forty-two of the 65 epidemics in Africa in recent years have been in West Africa. However, while there is a lot of talk about the free movement of people across borders, it should not be forgotten that huge numbers of animals cross borders too.
- There is a need to ensure that funding meets specific needs.

The chair then invited further comments from the four panellists. Dr Vold stated that assessments of countries' IHR status are important in order to identify gaps and to be able to develop an action plan to address them. In response to a question regarding where the budget for tripartite work should lie, Dr Rugalema said this would vary, but that the main issue should be to recognize the need for combined activities regarding human, animal and environmental health. He also drew attention to staff attrition in Sierra Leone when staff were not paid, and pointed to examples of positive community efforts, such as a local chief mobilizing young people to spread safe hygiene messages, or when several women's groups banded together to spread messages about hygiene and safe burial. Dr Krishnamachari said funders must work out how best to leverage resources, and collaboration with groups taking responsibility for different areas of activity is very helpful. It was exciting to hear the commitment of different groups and institutions to working on

a common platform. Dr Yamagata said that JICA would willingly work with other partners to do a bigger, better job.

Mr Graaff concluded by noting that much was happening in terms of practical interventions and enhancing systems, and that these developments should be built on for the future. While the humanitarian aid sphere has the United Nations Office for the Coordination of Humanitarian Affairs (OCHA), there is no equivalent for health; such a common platform is needed to share responsibility for preparedness.



Breakout sessions

The aim of the breakout groups was to find out how to achieve health security, and to establish who would be involved, and with what responsibilities. There were five subject matter groups: coordination and leadership; capacities and systems to enable early detection; capacities and systems to enable rapid response; emergency coordination and operations; and quality assurance. Group findings would be reported in a feedback session. There was also a closed side meeting for donors. Participants in breakout groups were urged to speak freely.

Feedback from breakout groups

Dr Brian Evans took the chair during this session.

Breakout group 1: Coordination and leadership

The group examined the topic from three perspectives: leadership during crisis; leadership in the post-crisis period; and leadership to maintain the window of opportunity to undertake corrective actions—all at national and international levels. Members of the group concluded that leadership falls under the responsibility of countries, and countries “own” the coordination process, though they may delegate responsibility. Effective coordination depends on effective leadership. During crises, leadership is needed to make rapid decisions in uncertain situations and with limited information. Leadership is also the ability to manage the positive or negative consequences of those decisions. Many agencies may be involved in crisis response, so this is a time for building on existing structures and links; the crisis phase is not a time to introduce new structures.

The inter-crisis period requires a strongly proactive approach, and is the time for building relationships, testing response structures and frameworks, and undertaking corrective actions across all levels (technical and operational, legal and policy) to enhance, improve or remove

structures as appropriate. Time between crises can also be employed to promote a horizontal approach to vertical programmes, or to integrate discrete programmes.

At international level the inter-crisis period offers opportunities to align activities with national priorities. There is a need to improve mapping of coordination mechanisms at international level. At national level, this is a time for exercises; refining mandates, responsibilities and accountabilities; and creating national incentives that turn conceptual issues into actions. It is a time to maximize the window of opportunity for improvement and to build the trust between actors that is needed in crisis. Finally, the capacity to lead should be developed as part of international support to countries.

Breakout group 2: Capacities and systems for early detection

The group considered two scenarios: detecting a new problem and detecting new cases of a known outbreak. Group members emphasized the need for risk communication and social engagement measures, and for a health workforce trusted by communities. In particular, the first level of the health system should be strengthened, since that is the level with which the community comes into contact most frequently; if the community trusts the first-level health workers it is more likely to trust other levels of the health system. Primary health care should therefore be strengthened with appropriate resources and supervision. Community resources should be respected (such as traditional customs that can have a positive impact on health) and opportunities should be taken to partner with community groups involved in health (such as women, young people, traditional healers, and families).

The group urged that positive messages about health should be used rather than negative ones,

and that families' capacity to care for themselves should be enhanced—by, for example, using cell phones to convey regular health advice. Local community priorities should be identified; health may not be the chief priority of community members, and if they have other needs it could be important to respond to those. Health workers should remember that communities are not necessarily homogeneous, and that strategies may need to be adapted to different target groups. Community leaders should be involved in health issues, creating platforms for discussion and coordination involving entire communities. Coordination with implementing partners is essential to ensure that all use common messages and adhere to the same standards (such as on payments to volunteers).

The group recommended using an early warning and response system for outbreak detection, but also advised going beyond signs of disease to include other signals such as consumption of medicines, sales of coffins, absenteeism from work, law enforcement data, information from points-of-entry authorities, and so on. They urged stronger intersectoral collaboration between animal and human health sectors; simple case definitions; and training for different sectors and levels, starting at community level. Since surveillance (especially at community level) can generate a huge amount of data, countries were advised to promote use of computer and mobile telephone technologies to collect and analyse it. Rapid action also depends on rapid reporting of data.

There is also a need for sustained laboratory services to obtain and report test results in a secure, timely and reliable manner. Countries were urged to identify reference laboratories and develop laboratory networks, using safe transport of specimens. Field epidemiology training programmes were said to be helpful in operationalizing a multisectoral approach. There was a call for new technologies: while polymerase chain reaction (PCR) testing is considered good, it is also too expensive. There were also calls for innovative approaches, and for infection prevention and control (IPC) strategies integrating animal health.

Breakout group 3: Capacities and systems for rapid response

While the group acknowledged that much support goes to the national level, members argued that there should be more focus on IHR implementation at district level. In terms of human resources, countries should identify and train persons for rapid response teams, including in communities and at points of entry, and establish frameworks for sustainable community engagement with leadership. There should be multi-hazard response plans, standard operating procedures (SOPs), and a budget line for response at district level. Arrangements should be made with neighbouring countries to enhance cross-border response. The group further advised that policies and procedures must be in place in advance of emergencies, including legal provision to regulate the private sector in a way that supports national plans, guidelines and protocols for fieldworkers, data management systems that allow sharing of information between different administrative levels, and a monitoring and evaluation framework.

A rapid response depends on reliable infrastructure and logistical support: it is necessary to ensure a safe working environment, a clear supply chain for equipment and medications, and appropriate transport. Support structures of vertical programmes should be integrated into the response, and exemption procedures should be established to ensure rapid procurement of supplies. There should be a mechanism to enhance multisectoral collaboration at district level; donors and partners (and the support they offer) should be mapped; and trained regional staff should be pooled. Partners should be encouraged to allocate resources within the IHR framework in order both to build national capacities and to respond to health threats. Partner support should be aligned with national plans, and coordination of partner efforts must be assured at international level. National public health institutes should be set up (by twinning), national training institutions enhanced, and centres of excellence established to develop models for training emergency workers. National programmes for IPC with should be set up, with SOPs for monitoring and compliance, and with possible involvement of the private sector.

Breakout group 4: Emergency coordination and operations

Breakout group 4 considered how to ensure coordination of operations during an emergency—in particular by setting up a multisectoral, multidisciplinary steering committee and establishing an emergency operations centre (EOC). The group recommended obtaining an official mandate to set up the steering committee, in order to provide a legal foundation for leadership and coordination in an emergency. To prepare the committee for its work, there should be a new hazard and vulnerability analysis, SOPs, training and emergency simulations, and the development of a concept of operations (CONOPS) with appropriate links to emergency management authorities.

The EOC itself would require physical premises provided with adequate resources (such as staff, equipment and budget), and operational and management staff trained in EOC functions. Response agencies should be consulted on the CONOPS, and there should be an EOC management plan, hazard-specific plans (for specific risks), and an EOC continuity plan (including alternative premises in case of loss or damage, and alternative means for providing services). There should be agreements in place with the private sector (e.g. telecommunications providers) that can be activated according to a specified process.

In terms of preparation for operations, the first steps are to determine the scale and scope of health-related logistical needs in emergencies; establish division of labour between partners and agencies; and conduct assessments of logistics, actors, assets, structures and gaps. This should be followed by mapping of relevant infrastructure and population distribution and movements, and convening partners to develop plans to strengthen operational systems. There should be advocacy with the relevant ministries for appropriate budget allocations, and SOPs agreed with all partners. A performance monitoring system with regular reviews should be established, and national capacity should be developed through training, mentoring and supervision. A coordination mechanism for emergency logistics should also be in place with relevant partners.

There would also need to be clear procedures for access to stockpiles; a process for obtaining additional supplies in emergencies; and agreement with regulatory authorities for accelerated clearance systems for essential medicines and supplies. Supply chain management would need to be strengthened, and a coordination forum established for those not involved in the operational structure.

Breakout group 5: Quality control

The fifth breakout group described quality control of emergency preparedness and response as a “continuous improvement loop”. Plans must be operationalized (through simulations and exercises), and should be tested and assessed as part of the broader response system. On the basis of the assessment, actions should be taken to improve the plans’ effectiveness. Any assessment should take into account the fact that quality control is about accountability for resources. When a plan is put into practice, it should be monitored and assessed in the same way as in a simulation, to ensure improvements can be made in future.

Training programmes (both pre-service and in-service) are important in bringing staff up to date on operational functions and procedures. However, making improvements in organizational culture is a longer process. Improvement implies change but, in order to achieve change, there must be motives, incentives and enablers allowing it to happen. Financial incentives to engage in emergency response are often needed, although public recognition has also been noted as an incentive.



From action to delivery

Dr Peter Mertens—Director, International Health Regulations, Ministry of Health of the Netherlands—took the chair for this session, during which participants from Tanzania and Senegal presented their experiences. Both countries have multiple partners, initiatives and projects that are ongoing or planned. In addition, WHO has conducted missions in each of these countries to take stock of national plans and planned stakeholder activities and gauge how best to maximize partners' collective efforts at country level.

Case study: Tanzania

Dr Fausta Masha, Head of Tanzania's Public Health Laboratory, described the country's prioritized activities through to 2017. This nation of 45 million people has frequent outbreaks including cholera, meningitis, dysentery, anthrax, dengue, malaria, Chikungunya and Rift Valley fever. There are 6,000 health centres and a range of laboratories, but only one BSL-3 laboratory. Tanzania's disaster management framework, based in the prime minister's office, is headed by a Disaster Management Commission, supported by a Technical Committee and a Disaster Management Forum, and has further disaster management committees at regional, district, ward and village levels. The Ministry of Health has a technical working group on emergency preparedness and response, and another on the IHR. There is also a national task force committee (activated by the technical working group on emergency preparedness and response) with five subcommittees on coordination, surveillance and laboratories, case management, social mobilization, and logistics.

Tanzania has nine policy documents relating to disasters and emergencies, and eight relevant action plans and programmes. There is political commitment and government support, and a number of overseas partners providing support along with the private sector (the latter being particularly helpful in port health services).

Tanzania has prioritized four IHR core capacities for achievement by 2017: (1) a strengthened coordination structure for public health events; (2) preparedness and response with key activities and approaches; (3) surveillance, information and data systems management; and (4) laboratory services. The IHR remain the legal framework for GHSA activities, in which Tanzania is contributing to an animal health programme. There is a training programme for volunteer community teams; volunteers are unpaid, but enjoy some status within communities.

Case study: Senegal

Dr El Hadj Mamadou Ndiaye, Director of Prevention of Senegal, described Senegal's 14 medical regions and 76 districts. A 2011 review of IHR capacities showed implementation was varied, with over 60% implementation in surveillance but only about 20% implementation in response. National legislation and policy are in need of strengthening. Also in the 2011 review, potential risks in terms of points of entry were food safety events, chemical events, zoonotic diseases, and radiation emergencies.

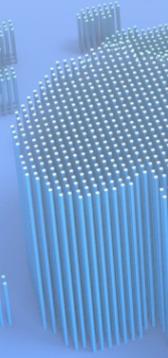
Dr Ndiaye described IHR capacities at different points of entry. For instance, at Kalifourou, near Senegal's border with Guinea, IHR capacity in coordination and communication was judged to be 58% achieved in 2014, while capacity to deal with a public health event of international concern was considered to be 26%. At the port of Dakar the same year, capacity in coordination and communication was assessed at 44% while capacity to deal with a PHEIC was 18%. At Dakar airport, capacity in coordination and communication was 61% achieved and capacity to deal with a major public health event was 77%. Senegal has requested an extension to complete the IHR capacities by 2016. Points needing improvement include the absence of a multisectoral approach, limited laboratory capacity, lack of financial resources, and the fact that the national IHR focal point is just one person.

Senegal's national strategies include strengthening staff competencies, the minimal requirements of the IHR, logistics and communications, and the system of surveillance. Priorities include finalizing the IHR budget, placing focal points in regions and districts, increasing the number of staff doing surveillance, reinforcing logistics (including providing more mobile telephones), and improving coordination and follow-up. The IHR are essential, but Senegal still needs to fill gaps in capacity. With the GHSA, Senegal intends to strengthen its capacity for surveillance, laboratory services and coordination of emergencies.

Points raised in discussion

In the discussion that followed, the following points were noted:

- The chair noted that the two reports showed some similarities, but also a number of differences. There are many differences between the world's countries; for instance, community involvement is relatively straightforward in smaller nations, but in large ones it requires considerable logistical capacity to reach communities.
- The GHSA is particularly helpful in enabling countries to reach IHR goals. For instance, Tanzania has a large action plan with various activities being carried out by different partners, including several through the GHSA.
- Some countries do not have border surveillance data.
- Five countries in East Africa have set up cross-border surveillance committees.



Country and partner expectations **1**

The representatives of all stakeholders—national and international partners, countries and donors—were invited to discuss their expectations for the future of health security, synchronizing and harmonizing priorities, and using WHO as a platform for future dialogue.

The session was chaired by **Dr Helen Rees**, Executive Director of the Reproductive Health and HIV Institute of the University of Witwatersrand, who also serves as Chair of the South African Medicines Control Council and Chair of WHO's International Health Regulations Emergency Committee on Polio. Dr Rees introduced panellists from the USA, United Kingdom, France, the World Bank and the Netherlands.

United States Agency for International Development (USAID)

Dr Dennis Carroll, Director of Global Health Security and Development of the United States Agency for International Development (USAID), stressed that an infectious threat in one part of the world is a threat to all. The IHR provide a global framework to detect and respond to outbreaks. The interplay between humans and animals underlies disease emergence and the One Health approach provides a framework for disease prevention by building capacities across animal and human health to address socio-ecological drivers of disease. The GHSA provides a political framework for accelerating IHR and One Health capacities, and development agencies and banks investing across multiple sectors have an opportunity to partner with national governments and with WHO, FAO and OIE to free the world from infectious diseases. USAID's emerging pandemic threats programme works in 35 countries.

United Kingdom EU Member States Ebola Lesson Learning Meeting

Dr Anne Philpott, Ebola Regional Team Leader for the Ebola Crisis Response of the United Kingdom's Department for International Development (DFID), spoke on behalf of the European Commission (EC) Directorate-General for International Cooperation and Development (DG DEVCO); the EC Humanitarian Aid and Civil Protection department (ECHO); and the development agencies of a number of EU Member States (France, Germany, Netherlands, United Kingdom). These agencies met in July 2015 to discuss lessons from Ebola, recognizing that the response is ongoing and there is a chance of achieving zero new infections. They agree on the need to move from Ebola preparedness and response to wider outbreak preparedness and response, stressing: the importance of stronger health systems; compliance with required IHR capacities; country ownership and accountability; and the need for good partnership principles (i.e. the IHP+ principles). They called for strong, WHO-led country-level coordination, urged that communities should be included in local responses, and emphasized the importance of transparency and data sharing.

France

Ms Saran Branchi, European and International Affairs officer of the Directorate-General of Health of France, speaking also on behalf of the Ministry of Foreign Affairs, said that guiding principles for France included WHO's leading role for IHR implementation, and the integration of the IHR as a key element of health system strengthening. The operational approach should be country-based

and multisectoral, especially in view of the animal source of many health threats. Health security also cannot be achieved without collaboration both within and between countries. Ms Branchi listed a number of French activities, such as dedicating €2.2 million to the IHR and €14 million to building on Ebola efforts to strengthen health systems and IHR core capacities. French-funded projects have included €20 million to strengthen national public health institutes for surveillance and rapid response, €4.8 million for eight regional alert and response teams in Guinea, a West African laboratory network, and a project for hygiene and infection risk control in hospitals in six countries. The next steps include maintaining IHR capacity and health system strengthening at the highest level of global health security. Ms Branchi particularly emphasized the importance of ensuring sufficient numbers of trained health personnel are available to cope with outbreaks. France had offered to host a high-level international health conference in Paris in March 2016.

The World Bank

Dr Patrick Osewe, Programme Lead for the World Bank's South Africa team, stated that the Ebola crisis in West Africa was not only about sickness and death: children had stopped going to school, the mining industry had scaled down; expatriates had left; transport (international and internal) had stopped; farming had been neglected; crops were unsown; private sectors had shrunk; and jobs were not being created. Before the epidemic, the World Bank was working on a number of economic programmes in West Africa, and when it began the local offices reprogrammed their work to fund the fight against the crisis. Twelve countries did this. In this way, and with additional funding, the Bank was able to provide US\$ 518 million to help curb Ebola. The World Bank is also establishing the Pandemic Emergency Facility to disburse funds quickly in pandemic situations. To benefit from the Facility, all countries would need actionable pandemic emergency preparedness plans. Several insurance mechanisms are also being tried. A telephone initiative is being piloted to assess Ebola preparedness at health-facility level and build a database of infectious outbreaks. Another project aims to enhance regional disease surveillance in ECOWAS countries. In East Africa, the Bank is financing a public health laboratory networking project in five countries for the

diagnosis of tuberculosis and other communicable diseases. Regional projects on integrated disease surveillance include development of laboratory networks and support for One Health programmes. Projects are ongoing on health systems strengthening and technical assistance in low- and middle-income countries.

Netherlands

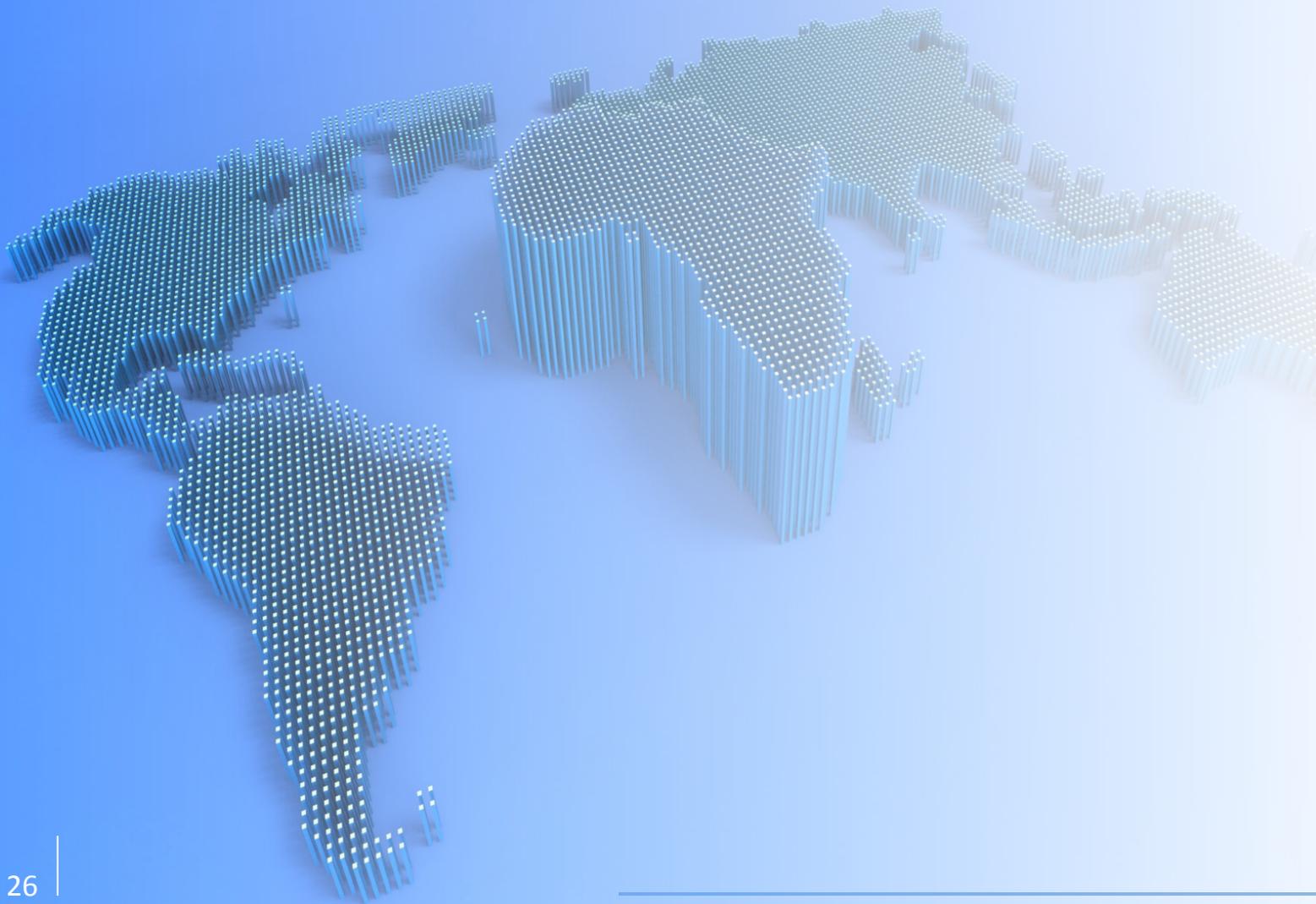
Mr Marco Gerritsen, Senior Liaison for the Ebola Outbreak in West Africa at the embassy of the Netherlands in Accra, Ghana, noted that Africa had mobilized the highest number of professionals for the West Africa Ebola response, and that African teams had the lowest patient mortality rates. He stated that the Netherlands fully supports WHO in its leadership in this area. Through the Royal Tropical Institute and other institutions, the Netherlands invests in trilateral support from Rwanda and Ghana to Sierra Leone and Guinea for community-based medical and veterinary surveillance. Consequently the Netherlands can share multi-country experience of IHR preparedness and response.

Points raised in discussion

In discussion, participants and panellists made a number of points:

- Ebola is something that has to be fought on all fronts, but there are still cases and the virus has not been eliminated.
- The International Civil Aviation Organization (ICAO) drew attention to its CAPSCA programme (Collaborative Arrangement for the Prevention and Management of Public Health Events in Civil Aviation), which aims for public health protection of the general public, air travellers and aviation personnel. CAPSCA provides assistance to countries to establish national aviation pandemic preparedness plans, and puts particular focus on implementing the IHR at airports and in aviation, in cooperation with WHO, the International Air Transport Association (IATA) and the United Nations World Tourism Organization (UNWTO).
- Points of entry are where national outbreaks become international ones, and should receive more attention. Points of entry were important in the fight against polio because many countries required visitors to have evidence of vaccination. The WHO office in Lyon, France, is working on ensuring health security at points of entry.

- Burkina Faso has an ongoing plan to strengthen core capacities by 2016, but is struggling to find the necessary support to face the next dangerous pathogen.
- Facing pressure for change, WHO must decide what it should do more of, and what it should do differently.
- Some felt WHO should reinforce regional offices so that they can respond to outbreaks such as Ebola more rapidly and more effectively; but others felt it was difficult to maintain financing to strengthen regional institutions. There needs to be more reflection on WHO's role, to provide a strong basis for deciding what direction WHO should take.
- Government budgets tend to be fixed, and it is difficult to change them even in crisis.
- Ebola cannot be seen as a local event, because it threatens everyone. Ebola should be seen as a learning experience for the next emerging health threat.
- The Ebola outbreak was initially treated as business as usual, but it was unusual and it was difficult to recognize. Ebola causes fear, which contributed to the refusal of many people to recognize it.
- In the three Ebola-affected countries there are many other diseases; there are high maternal mortality rates; and infrastructure is poor. People have been left in poverty, have lost jobs, and have had education disrupted; poverty alleviation has been made more difficult. The only way forward in these countries is a multi-sectoral approach at community level, rather than through governments that cannot or will not accept their responsibilities.
- The One Health approach is essential. Investments in agriculture should be part of the same package as health investments.
- Ministries of health are not development agencies and cannot ensure health security by themselves. Change and new thinking are needed at top levels of government.



Country and partner expectations **2**

Dr Helen Rees took the chair, introducing panellists from Canada, Japan, Finland, Germany, Australia and the United Kingdom.

Canada

Mr Pierre Blaise, Deputy Director of Global Health Programs at Foreign Affairs, Trade and Development Canada, said that the meeting was addressing a critical job. Canada would remain engaged in health security to strengthen IHR capacities through the GHSA and the G7. Mapping was urgently required of what needed to be done, where, and for how much. Leadership and coordination were needed, and Canada was looking to WHO to take a proactive role. Once it has been decided what needs to be done, there will be a need for an accountability framework like IHP+ to ensure follow-through. The fact that all were united in supporting a five-year push towards global health security, including animal illnesses, was commendable; but consideration was needed of what will happen after that. Country ownership, leadership and financing are particularly important in getting things done.

Japan

Dr Shiro Kanuma, Minister-Counsellor of the Embassy of Japan in South Africa, emphasized that the core of global health security is the health system, which supplies regular health services but must also be prepared for emergencies. Building resilient health systems and preparing for emergencies will help us realize the human security agenda that Japan has been promoting. The GHSA is a game-changer but countries will continue to depend on WHO's technical expertise, so initiatives such as GHSA should go hand-in-hand with WHO's work. Strengthened global collaboration is needed in national efforts, including accelerating implementation of the IHR, avoiding duplication and maximizing efficiency. Japan is determined to help build global and regional health security, especially in prevention and preparedness, where it has particular

expertise. In this regard, JICA will support IHR capacity building in partner countries, as an integral part of health systems strengthening toward achievement of universal health coverage. Investment in pandemic prevention will always be prioritized, and JICA will support acute needs of countries affected by pandemics, applying the concept of "building back better" as developed in the context of post-disaster reconstruction. In addition to pandemic-resilient health systems, JICA will help build pandemic-resilient societies through coordinated multisectoral investments and activities.

Finland

Dr Päivi Sillanaukee of Finland said that strong government commitment is absolutely essential in stopping epidemics. National and international relationships must be developed before an emergency occurs, not during it. Finland fully supports WHO's role as lead agency in health emergencies because of its international mandate, and supports the creation of a contingency fund and a global health emergency workforce. In addition, the GHSA offers a chance to accelerate actions for capacity building to strengthen health systems and IHR preparedness. Coordination in preparedness for global health security is crucial in order to avoid distraction and disconnection from the main goal.

Germany

Dr Eduard Westreicher, Head of Development Cooperation at the embassy of Germany in South Africa, said that the Ebola outbreak resulted from local, national and international structural weaknesses. He reminded participants of German Chancellor Angela Merkel's plan for mastering the international health crisis by strengthening the global health emergency workforce, providing logistics and international financing mechanisms, improving global health governance structures, enhancing research and production of vaccines and medications, and strengthening health and

social protection systems globally. Germany sees WHO as leader of this process, and has an interest in a strong WHO that is able to mount rapid and effective emergency responses. Global public health crises call for efficient global coordination, and this calls for leadership from an authority with global legitimacy. Germany therefore strongly endorses comprehensive reform of WHO, to strengthen its leadership as a standard-setter and coordinator of global public health policy. Germany has contributed about €195 million to the fight against Ebola in West Africa and its armed forces established an air-bridge that transported more than 800 tons of aid to affected countries. As chair of the G7, Germany urged support for IHR implementation and has earmarked €205 million for a health initiative in 11 African countries and three regional organizations. Germany is working with the EU to create a pool of medical teams that can contribute to the WHO global health emergency workforce. The international health architecture needs to be strengthened, with a strong and functional WHO at its centre, mounting effective response operations and coordinating both globally and on the ground.

Australia

Ms Madeleine Heyward, Health Adviser at the Permanent Mission of Australia to the United Nations in Geneva, reminded participants that no country's health system is impervious to emergencies. Australia confirmed the role of WHO as the lead in health emergencies, and felt WHO should be properly skilled and equipped to perform this role. Member States must have robust and resilient health systems; and the IHR are the basis for ensuring rapid and effective response to emerging global health risks. South-East Asia and the Western Pacific are hotspots for new infectious diseases that can lead to global health emergencies. A common strategic framework in this context is the Asia Pacific Strategy for Emerging Diseases (APSED); Australia provides regional support on the IHR through regular meetings of APSED's Technical Advisory Group, which assists Member States that have not met the June 2012 deadline for developing and implementing national IHR workplans. In the coming year, through the GHSA process, Australia will help Asia-Pacific Economic Cooperation (APEC) countries achieve the IHR capacities. GHSA

will provide a forum through which participants can identify gaps and risks, share practical experiences, and determine areas of collaboration and partnership through GHSA action packages. Australia has invested in a regional Ebola response and preparedness package, is actively involved in regional efforts to combat antimicrobial resistance, and is co-chair of the Asia Pacific Leaders Malaria Alliance. Collaboration across borders is the key to regional and global health security.

United Kingdom

Dr Richard Gregory, Senior Policy Adviser for Global Health Security at DFID, emphasized the seriousness of health preparedness in the United Kingdom and globally. The United Kingdom has pledged considerable funding to Ebola control in West Africa, to rebuilding after the epidemic, and to the global fight against antimicrobial resistance. The United Kingdom's total Ebola pledge for "getting to zero" and regional preparedness was £430m, with £240 million over two years to Sierra Leone for recovery support. In addition, the United Kingdom has established the Fleming Fund (£195 million over five years) to combat drug-resistant infections worldwide. Some 1,000 staff of the National Health Service (NHS) and Public Health England (PHE) assisted in setting up laboratories; the United Kingdom also funded community engagement in Sierra Leone, supporting peer-to-peer education and the mobilization of local groups, especially young people and women. A broad approach to global health security is required that is stronger (supported by an international architecture with a reformed United Nations and WHO, and strengthened country health systems); smarter (complying with the IHR, based on reliable data, with appropriate research and development, and taking account of antimicrobial resistance); and swifter (with rapid response mechanisms in place, staff prepared, and finance available). The IHR must be an integral part of strengthening health systems, but global health security is bigger than the IHR. National and international actions must be coordinated.

Points raised in discussion

Participants made a number of comments from the floor, including:

- Health systems are based on the idea that populations are static, but many are not. The focus of health security should not be simply on cross-border travel, but also on human mobility.
- With regard to points of entry, ports and airports are often operated by Ministries of Transport. Public health officers in those places have to deal with specific issues such as ballast water, food flow, and disinsection of aircraft, which are very different priorities from commerce and security. In order to meet IHR requirements, the technical abilities and equipment of port-of-entry health staff must be upgraded.
- Several countries with large numbers of ports of entry and with porous borders expressed keenness to fulfill IHR core capacities, but lacked the funding to do so.
- There was support for the important role of the WHO country office; in Nigeria, for example, the WHO office coordinated partner activity during the Ebola response.
- A number of speakers said that WHO must be the leader in emergency outbreak responses. Expectations of WHO are high, so the organization must be properly resourced and prepared to lead.
- Countries must play a leading role in emergencies, and WHO is their natural partner in this work. The GHSA process of capacity building pushes countries to cooperate.
- Country ownership means the highest possible commitment on the part of the country itself. Countries must cooperate on health issues across borders.
- Rapid response can happen only if countries are willing to allow assistance to enter, and do not insist on visas and import regulations.
- Cooperation with the Inter-Parliamentary Union was recommended as a way to encourage countries to support preparedness activities.
- The FAO pledged support for IHR core capacities, especially regarding zoonoses.
- UNAIDS pledged its support to WHO in the health security endeavour.
- All countries that have recently had epidemics have an IHR compliance score of less than 40%. One commitment could be to raise the score of these countries to 100% in the next five years.

- The stability of the state is absolutely necessary for effective health systems. In seeking health security, there must be closer links with the humanitarian sector.
- WHO must be strengthened for the job it is being asked to do; but is this happening?

The chair then summarized the highlights of the discussion:

Ebola highlighted fundamental weaknesses that we already knew about. Today there are many fragile states. When an outbreak occurs it not only affects health but also pushes back other areas of development; other sectors must therefore be involved in preparedness. Country ownership must go beyond the health sector; health is a Presidential issue. Strong support was expressed for WHO, but there has to be WHO leadership and coordination. Sustainability and partnership are appreciated. The integration of the IHR capacities with health systems is fundamental, but there are new challenges, such as human mobility and climate change. Partners are not only aid agencies; they include the airline industry and the private sector, from big mining conglomerates down to micro-entrepreneurs at community level. It is time to stop being reactive and start being proactive. The meeting had expressed a united global voice with personal, ethical and financial commitment.

At the close of this session a number of final comments were made about the meeting and about global health security in general:

Referring to a panellist's earlier comment that the world was experiencing a "learning moment", **Dr Fukuda** said that it was also a humbling moment and a moment of change and opportunity. WHO has been seeking an exchange of ideas, a strong commitment to collaborative work, and a consensus on key actions. A brief consensus paper had been shared for participants to comment on, and all participants were urged to send feedback so that it could be refined for use in the development of a high-level road map that would include implementation. It was clear that everyone wanted WHO to take the lead and to coordinate all efforts; and WHO would do that.

Ambassador Jenkins said the USA was committed to building on this collective experience, building countries' core capacities, and working towards IHR implementation through the common targets of the GHSA. The USA had committed to assisting 30 countries to meet the targets of the GHSA and was currently working in 17 of those countries to develop plans and build capacities. The USA welcomed the statement of the G7 to commit to assisting an additional 30 countries in the same manner, and saw a very clear role for WHO across all three levels of the organization in supporting the international community in achieving global health security, building on its coordination and convening role.

Dr Vold of Norway said the outbreak was a reminder of the need to invest in the IHR and health systems, setting a standard for meeting both everyday challenges and those of unusual events. WHO has a key role, and should be properly resourced, skilled and equipped.

Dr Sri Henni Setiawati, Adviser to the Minister of Health of Indonesia, stressed the importance of a multisectoral approach with global coordination by WHO, and announced that Indonesia—which would be the next chair of the GHSA—was prepared to host a follow-up high-level meeting in 2016.

Representatives of both **Australia** and **Japan** welcomed the idea of a meeting in Indonesia and offered their assistance. Japan would also follow up on the present meeting in the 2016 G7 meeting in Japan.

The representative of **Germany** said that the IHR provides a good basis on which to strengthen health systems with a multisectoral approach. The G7 meeting in Germany in 2015 focused on this, and Germany earmarked over €200 million for assistance to 13 countries. In order for the many efforts to strengthen health systems to be successful, a strong international health structure, led by WHO, was required.



Closing

Ms Precious Matsoso thanked participants and contributors. Noting terms heard frequently during the meeting – such as ‘swifter,’ ‘stronger,’ ‘enhanced,’ ‘accelerated,’ ‘data,’ ‘accountability,’ ‘partnership’ and ‘leadership’ – she felt that the meeting was moving towards building a new movement for the future. It had enabled people to reflect at local, national, regional and international levels. Health security is not just about money, but it is also about commitment: Cuba, Ethiopia and Uganda are not rich countries, but they sent health workers to West Africa. MSF did not have enough staff, but they did not give up; they stayed, and they made a lot of noise, and the world eventually took notice.

No country is impervious to health emergencies: a threat anywhere is a threat everywhere. Shared vulnerability requires shared responsibility, and common threats require collective action. The international community must practice good partnership principles, and WHO must continue to lead in implementing the IHR. Ms Matsoso concluded by reading extracts from the Report of the Interim Ebola Assessment Panel¹ that paid tribute to the courage, contributions and sacrifices of local communities in confronting Ebola, stating:

“The Ebola crisis began and continues in local communities. These communities have been indelibly marked by fear and sorrow and by great sacrifice.”

The report also stated that “WHO must re-establish its pre-eminence as the guardian of global public health;” Ms Matsoso pointed out that this would require “significant changes throughout WHO”. She stressed, however—as the Ebola Assessment Panel had done—that WHO is not just a secretariat; it includes the countries that belong to the Organization and which serve in the WHO Executive Board, the Regional Committees and the World Health Assembly. The future of health security cannot be achieved by a secretariat; it can be achieved only by the world.

¹ See: <http://www.who.int/csr/resources/publications/ebola/ebola-panel-report/en/> (accessed 30 July 2015).

Agenda

MONDAY, 13 July 2015

08.00-09.00	Meeting registration
09.00-09.50	<p>WELCOME AND OPENING REMARKS - <i>Grand Ballroom</i></p> <p>Chair: Ms. Malebona Precious Matsoso, South African Director-General of Health</p> <ul style="list-style-type: none"> • Dr. Keiji Fukuda, Assistant Director-General, WHO • Dr. Matshidiso Moeti, Regional Director for Africa, WHO (via video message) • Dr. David Nabarro, Special Representative to the UN Secretary-General • H.E. Ambassador Olawale Maiyegun, African Union • Dr. Päivi Sillanaukee, Permanent Secretary Ministry of Social Affairs and Health, Finland • H.E Ambassador Jenkins, USG
09.50-10.00	Group Photo
10.00-10.30	Press conference for high-level dignitaries from 10.00-10.30.
10.00-10.30	Coffee Break
10.30-12.30	<p>SESSION 1 KEY LESSONS AND CHALLENGES IN STRENGTHENING THE IHR CAPACITIES AND HEALTH SYSTEMS NEEDED FOR HEALTH SECURITY - <i>Grand Ballroom</i></p> <p>Chair: Dr. Victor Asare Bampoe, Vice Minister of Health Ghana</p> <p><i>This session should take stock of the main challenges identified in the context of preparedness and response to public health emergencies and, based on experience from previous public health events, explore ways forward to strengthen IHR capacities and health systems.</i></p> <p>WHO update on Ebola Preparedness – Dr Socé Fall, Director Health Security and Emergency, WHO Regional Office for Africa and Dr Hans Kluge, Director Health Systems and Public Health, WHO Regional Office for Europe.</p> <p>Moderated panel discussion</p> <ul style="list-style-type: none"> • <i>Building on a successful response</i> - Mrs. Olubunmi Eytayo Ojo, Nigeria • <i>Cross border collaboration and initiatives</i>- Pr Mamadou Soungalou Traoré, Mali • <i>Sub-regional initiatives</i> - Dr. Christian Chaffa, Benin • <i>Awareness raising and community engagement</i> - Prof. N’Cho Simplicie Dagnan, Côte d’Ivoire <p>Moderated open plenary discussion</p> <p>‘Body Team 12’ – Film courtesy of the Paul Allen Foundation</p>
12.30-13.30	Lunch - Restaurant Thirty7
13.30-15.00	<p>SESSION 2 NATIONAL PLANNING TO ADVANCE IHR IMPLEMENTATION - <i>Grand Ballroom</i></p> <p>Chair: Dr. David Nabarro, Special Representative to the UN Secretary-General</p>

The session should serve to bring out key strategic elements necessary to accelerate IHR implementation and health system strengthening.

First moderated panel discussion

- Experience from detecting and responding to public health events- Dr Idrissa Maiga Mahamadou, Niger
- Approaches and tools for surveillance- Dr Isaïe Medah, Burkina Faso
- Strengthening Laboratory Networks- Prof. Iyane Sow, Senegal
- Integrating International Health Regulations and Health System Strengthening - Dr Yanet Fortunata López Santiago, Mexico

Moderated open plenary discussion

15.00 – 15.30

Coffee Break

15.30 – 17.00

Cont. **SESSION 2** - Grand Ballroom

Second moderated panel discussion

- National Coordination mechanisms in support of national plans- Dr. Thomas N. Nagbe, Liberia
- Experience on developing multisectoral health security- Dr.Suriya Wongkongkathep, Thailand
- Coordination during health emergencies – Brigadier General Dr Ben Yura Rimba, Indonesia
- Multi-stakeholder coordination– Mr Tom Kenyan, US CDC

Moderated open plenary discussion

17.00 – 18.00

SESSION 3 KEY STRATEGIC ELEMENTS FOR MOVING AHEAD - Grand Ballroom

Chair: Dr. Brian Evans, Deputy Director General OIE

This session will build consensus around previous session discussions. The Chair will highlight the broad-ranging discussion of the day and highlight the need for coordination.

Presentation – Keiji Fukuda

Dr Fukuda will present key strategic elements to move forwards, from preparedness to global health security

Open plenary discussion

18:00- 18:30

KEYNOTE ADDRESS

Dr. Aaron Motsoaledi, Minister of Health, South Africa

End of Day 1

Reception hosted by the Government of South Africa

TUESDAY, 14 July 2015

09.00-10.15

SESSION 4 MOVING FROM STRATEGY TO ACTIONS - Grand Ballroom

Chair: Peter Graff, Acting Special Representative of the UN Secretary-General and Head of the United Nations Mission for Ebola Emergency Response (UN-MEER)

This session should recognize some of the new and major ongoing initiatives contributing to IHR and health system strengthening. The session should explore how these initiatives apply, or intend to apply, the guiding principles set-out in WHO's strategic framework for action.

Moderated panel discussion

- IHR implementation and country support – Dr. Line Vold, Norway
- One health and tripartite collaboration – Mr Gabriel Rugalema, FAO
- National surveillance capacity building – Mrs. Sreeram Krishnamachari, Bill & Melinda Gates Foundation
- Strengthening laboratory in Africa – Dr. Ritsuko Yamagata, Japan

Moderated plenary discussion

10.15-10.30	<p>Introduction to Thematic Breakout Sessions - Grand Ballroom</p> <p>Stella Chungong, Coordinator, Global Preparedness, Surveillance and Response, Health Security Cluster, WHO HQ.</p> <p><i>WHO will introduce the working group discussion that would contribute to the strategic element for global health security.</i></p>
10.30-11.00	Coffee Break
11.00-13.00	<p>Thematic Breakout Sessions</p> <ul style="list-style-type: none"> • Group 1: Coordination and Leadership • Group 2: Capacities and systems to enable early detection • Group 3: Capacities and systems to enable rapid response • Group 4: Emergency coordination and operations • Group 5: Quality assurance
13.00-14.00	Lunch - Restaurant Thirty7
14.00-14.45	<p>Preparation of thematic group presentations</p> <p><i>Each working group will prepare the summary of the outcomes of their working group discussion for further recommendation at the plenary</i></p>
14.45-16.00	<p>Chair: Dr. Brian Evans, Deputy Director General OIE</p> <p>Summary presentations by each thematic group - Grand Ballroom</p> <p><i>The chair will present to the plenary the key speaker for each working group to present their working discussion. The rapporteurs will be presenting their working group recommendation and findings.</i></p> <p>Open plenary discussion</p>
16.00-16.30	Coffee Break
16.30-17.30	<p>SESSION 5: FROM ACTIONS TO DELIVERY - Grand Ballroom</p> <p>Chair: Mr. Peter Mertens, Project Director – International Health Regulations, Ministry of Health, The Netherlands</p> <p><i>The chair will present country case studies – from preparedness to global health security.</i></p> <p>Presentation of country case studies</p> <ul style="list-style-type: none"> • Dr. Fausta Mosha, Tanzania • Dr. El Hadj Mamadou Ndiaye, Senegal <p>Open plenary discussion</p> <p>End of Day 2</p> <p>Standing Dinner Buffet offered by the Government of Finland</p>

WEDNESDAY, 15 July 2015

9.00-10.30	<p>SESSION 6 MAXIMIZING NATIONAL AND PARTNER INVESTMENTS - Grand Ballroom</p> <p>Chair: Dr. Malebona Precious Matsoso, South African Director-General of Health</p> <p><i>The session will provide the opportunity for all stakeholders – international organizations, countries and donors – to share their perspectives, discuss their expectations and commit in order to build health security in the future; synchronize and harmonize our priorities; and use the WHO platform as a way for future health security dialogue.</i></p> <p>Country and partner perspectives, expectations and commitments</p> <ul style="list-style-type: none"> • Dr Dennis Carroll, USAID • Ms Anne Philpott, United Kingdom • Ms Saran Branchi, France • Dr Patrick Osewe, World Bank • Mr Marco Gerritsen, The Netherlands <p>All countries and partners will be invited to take the floor.</p> <p>Open plenary discussion</p>
10.30-11.00	<p>Coffee Break</p>
11.00-12.00	<p>Cont. SESSION 6 - Grand Ballroom</p> <p>Country and partner perspectives, expectations and commitments</p> <ul style="list-style-type: none"> • Dr. Shiro Konuma, Japan • Mr Pierre Blais, Canada • Dr Päivi Sillanaukee Finland • Dr Eduard Westreicher, Germany • Ms Madeleine Heyward, Australia • Mr Richard Gregory, United Kingdom <p><i>All countries and partners will be invited to take the floor.</i></p> <p>Open plenary discussion</p>
12.00-13.00	<p>Cont. SESSION 6 - Grand Ballroom</p> <p><i>The Chair will summarize the outcomes statements and the agreed actions to move forward and give the floor to all participants for final remarks.</i></p>
<p>Closing remarks by WHO and the Government of South Africa</p>	
<p>END OF MEETING</p>	
13.00-14.00	<p>Lunch - Restaurant Thirty7</p>



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