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For external distribution

## Ebola outbreak in west Africa

### Key messages

*Dr Bruce Aylward, Assistant Director General, WHO: "Our goal to stop the spread of Ebola in the next 6 to 9 months is still feasible but we need to act much faster."*

### Outbreak scope, evolution, impact

- **This is the largest Ebola outbreak ever.** Ebola virus disease has never been seen before in 7 countries, in multiple locations including large cities and major ports. This is the first time the disease has been detected in West Africa and the outbreak has now spread to the American and European continents. More than 22 million people are living in areas where active Ebola transmission has been reported.

**As of 19 October 2014, more than 9900 cases and 4800 deaths** had been reported in Guinea, Sierra Leone and Liberia, but also Nigeria, Senegal, the United States of America and Spain with a limited number of introduced cases. Nigeria and Senegal have just gone beyond the 42-day contact tracing period without any new cases and been declared Ebola-free.

- This outbreak is **spreading at an exponential rate**, with the number of cases currently doubling approximately every 3-4 weeks. In Guinea, Liberia, and Sierra Leone, new cases continue to explode in areas that looked like they were coming under control. An unusual characteristic of this epidemic is a persistent cyclical pattern of gradual dips in the number of new cases, followed by sudden flare-ups. WHO epidemiologists see no signs that the outbreaks in any of these 3 countries are coming under control and under-reporting is likely.
- Exposure of **health-care workers** to Ebola continues to be a serious concern. More than 420 health workers have been infected and more than 230 of them have died. Investigations so far show that most infections have occurred outside the Ebola isolation wards, either in other health facilities or in the community. WHO is investigating these closely to learn from the experiences and put the findings into practice as soon as possible.
- Although the current epidemic in West Africa is unprecedented in scale, the clinical course of infection and the transmissibility of the virus are similar to those in previous Ebola outbreaks. The present epidemic in West Africa is exceptionally large, mostly because of the condition of the health systems (shattered after years of conflict, and with a significant shortage of health-care workers) and because control efforts have been insufficient to halt the spread of infection.

- **The risk of continued expansion of the Ebola outbreak is real.** We still have no idea how big this epidemic will become. At the current rate of increase, we could expect 5-10 000 cases/week by 1 December if control efforts are not increased significantly.
- **Experimental therapeutics and vaccines** offer promise for the future, but are unlikely to be available in the quantities needed to make a substantial difference in control efforts for many months, even if they are proved to be safe and effective.
- Priority in-kind requirements include air lift, particularly helicopters, and maritime transport capabilities, fuel, vehicles; mobile laboratory facilities; static non-Ebola medical clinics; emergency medical evacuation capability ; 3.3 million items of high quality personal protective equipment; training; provision of **Ebola Treatment Centres and Foreign Medical Teams.**
- The outbreak is having significant direct and indirect effects on the affected west African economies and societies. On the health front, it has increased mortality among health care workers, overwhelmed the existing health infrastructure and reversed gains made in the health sector. It has also reduced social cohesion with issues such as stigma and quarantines of entire communities.

## Epidemiology and Surveillance

- The total number of probable, confirmed and suspected cases in the current outbreak of Ebola virus disease in west Africa was 9936 cases and 4877 deaths, as of 19 October 2014.
- Transmission in **Guinea** is increasing, driven by a spike in cases in Conakry and the nearby district of Coyah, and new cases have been reported nearby the borders with Côte d'Ivoire to the east and with Guinea-Bissau, to the north.
- **Liberia** is the worst-affected country in this epidemic with widespread under-reporting of new cases. Transmission remains intense in Monrovia, and most newly reported cases have come from the district of Bong and Margibi. There appear to have been a genuine fall in cases in Lofa.
- Transmission in **Sierra Leone** is described as rampant. The areas hardest hit are the capital, Freetown, and the neighbouring districts of Bombali and Port Loko. While transmission appear to have slowed in Kailahun and Kenema in the past weeks, new cases have been reported last week.
- As at 24 October, cases of Ebola had been introduced into Mali, Nigeria, Senegal, Spain and the United States of America.
- With the end of the 42-day contact tracing period without any new cases, **Senegal** and **Nigeria** have declared the end of Ebola transmission respectively on 17 & 20 October.

- The high number of Ebola infections in **health care workers** continues to be a cause of great concern. 427 HCWs are known to have been infected with Ebola up to the end of 12 October. Almost half of these cases were in Liberia and 236 HCWs have died. Preliminary findings on case investigation suggest that most of these are occurring outside the context of Ebola treatment and care, with infection prevention and control quality checks are now in place at every Ebola treatment unit.
- **Contact-tracing teams** in areas of intense transmission are overwhelmed by the high volumes of daily contacts to be traced, and encounter logistical difficulties, community denial of the existence of Ebola, and community resistance.
- WHO identifies rumours of Ebola cases as part of an event-based surveillance through screening and monitoring of reports in the media and other sources of information online. We work closely with the countries involved until negative lab tests are received.
- Providing the best possible picture of this rapidly evolving outbreak is a constant challenge. WHO, US CDC and other partners work closely with the Ministries of Health in affected countries to **improve collection and verification of data**. In this process, some previously positive cases may be dismissed as negative for Ebola or previously unreported cases may be found. Ebola cases (living or dead) are only considered ‘confirmed’ when a sample from a person with suspected Ebola is found to be positive when tested in the laboratory. The actual number of cases in many hard-hit areas may be two to four times higher than is currently being reported.

## UNMEER

- For the first time in history the UN has created a **“health-keeping” mission** - the **United Nations Mission for Emergency Ebola Response (UNMEER)** - in order to address the social, economic, development and security challenges associated with this public health emergency.
- The UN strategy, outlined in OCHA’s “Overview of Needs and Requirements” document, aims to **1) Stop the outbreak; 2) Treat the infected; 3) Ensure essential services; 4) Preserve stability; 5) Prevent further outbreak**
- According to a 90-day plan that kicked off in 1 October to start reversing the epidemic, the global response needs within 30 days to deploy all resources needed in the three countries. Within 60 days 70% of the cases must be isolated and treated and 70% of the victims must be safely buried.
- The UN Secretary-General appointed David Nabarro as his Special Envoy for Ebola, Anthony Banbury as his Special Representative and Head of UNMEER, as well Marcel Rudasingwa, Peter Jan Graaff and Amadu Kamara as respective Ebola Crisis Managers for Guinea, Liberia and Sierra Leone

## Ebola Virus Disease and Infection control

- Ebola virus disease, formerly known as Ebola haemorrhagic fever, is a severe, often fatal illness in humans. The virus is transmitted to people from wild animals and spreads in the human population through human-to-human transmission. It is thought that fruit bats are the natural host of the Ebola virus.
- **Symptoms** of Ebola include sudden fever, intense weakness, muscle pain, headache, followed by vomiting, diarrhoea, rash, and sometimes bleeding. People are **contagious** only when they begin to show symptoms, from 2 to 21 days after being infected with the virus.
- **Ebola is spread by contact (through broken skin or mucous membranes) with the blood, or other body fluids or tissues (vomit, stools) of infected people** or animals, whether alive or dead. It may also be contracted by handling, without protection, materials contaminated by secretions from an infected person, such as clothing, needles or bed linen.
- The Ebola virus has also been detected in **breast milk, urine and semen**. Men who have recovered from the disease can still transmit the virus through their semen for up to 40 days after disease onset.
- **Saliva and tears may also carry some risk**. However, the studies implicating these additional bodily fluids were extremely limited in sample size and the science is inconclusive. The whole live virus has never been isolated from sweat or on the skin of a symptomatic patient.
- Ebola does not survive in water. Viruses aren't as resistant outside the body as bacteria are. Rather, they depend heavily on the cells of their host — animal or human — for survival.
- **It is not spread through the air, therefore the risk of transmission is low**. Airborne spread among humans implies inhalation of an infectious dose of virus from a suspended cloud of small dried droplets. This mode of transmission has not been observed during extensive studies of the Ebola virus over several decades. Speculation that Ebola virus disease might mutate into a form that could easily spread among humans through the air is unsubstantiated by any evidence.
- **Dealing with cases of Ebola include the use of gloves, impermeable gowns, protective goggles or face shield and a face mask**. This is because direct contact includes physical touch but also contact with **infectious droplets**. Droplet precautions is very important for healthcare workers, family and other caregivers who stay close and are frequently exposed for lengthy periods of time with severely ill, highly virulent cases. Face protection is recommended to prevent infectious droplets landing on vulnerable membranes (mouth and eyes).
- Theoretically, a heavily infected individual, who has respiratory symptoms caused by other conditions or who vomits violently, could transmit the virus – over a short distance – to another nearby person – from droplet sprays. This is why some recommend to keep a **3 ft/1metre distance for large droplet precaution**- the average distance of a sneeze/spit.

- Ebola is a **highly infectious** disease and proper infection control practices are essential to prevent those treating Ebola patients and those who touch dead bodies during funerals from becoming infected themselves. In this outbreak, the average **case fatality rate is 70%**.
- A major challenge is a serious shortage of health workers. This puts the **limited number of health workers** who are available and responding to this outbreak **at risk** - when people are tired, they are more likely to make mistakes in infection control. Many of these health workers have not seen Ebola cases before. Hospitals and clinics simply don't have enough people to provide the level of care needed.
- **It is vital that all international staff that will work closely with Ebola patients receive proper training in infection control.** There is a shortage of qualified people worldwide with experience in Ebola.
- The first Ebola outbreaks occurred in remote villages in Central Africa, near tropical rainforests but the most recent outbreak in West Africa has involved major urban as well as rural areas. It originated in Guinea (the first case was reported on 21 March 2014 but cases have now been traced back to December 2013). This outbreak is caused by a strain of Ebola virus with very close homology (98%) to the Zaire Ebola virus.

### Experimental treatments and vaccines

- There is as yet **no licensed treatment** proven to neutralise the virus. **Early supportive care** with rehydration, symptomatic treatment improves survival.
- **A range of blood, immunological and drug therapies** are under development but evidence from human studies is still needed to be certain of safety and efficacy.
- There are three types of products being considered for use during the Ebola outbreak:
  - **blood-derived products**, such as convalescent serum, hyperimmune globulin and antibodies from people who recovered from Ebola (as in the experimental treatment used recently to treat a few aid workers).
  - **anti-viral drugs**-there are several of these that have shown efficacy in animal testing but we have no safety or efficacy data in humans.
  - **two vaccine candidates**, chosen based on their efficacy in primate pre-clinical trials:
    - **Chimpanzee adenovirus serotype 3 (ChAd3-ZEBOV)** being developed by Glaxo Smith Kline and others. Safety testing in humans is ongoing in the US right now, and two other trials are planned in Europe and Mali later in October (Phase I clinical trials).
    - **Recombinant vesicular stomatitis virus (rVSV-ZEBOV) vaccine** - being developed by a consortium involving Canadian Public Health. Human safety testing is also currently underway in the US. The 800 doses currently available have just been donated by the Government of Canada to WHO. WHO will

facilitate the distribution of the vaccine to clinical test sites. Further safety trials will be conducted in Africa and Europe in the coming weeks.

Once safety is confirmed, efficacy testing will begin. Results are hoped before the end of 2014, with possible emergency introduction in affected countries in January 2015, without licensing.

- Experimental therapeutics and vaccines offer promise for the future, but are unlikely to be available in the quantities needed to make a substantial difference in control efforts for many months, even if they are proved to be safe and effective.
- It is considered **ethical** to use experimental treatments for compassionate use, under conditions such as transparency about all aspects of care, informed consent, freedom of choice, confidentiality, respect for the person, preservation of dignity and involvement of the community.

#### Ebola Treatment Centres and Foreign Medical Teams

- One of the greatest challenge of this outbreak is getting Ebola treatment centres fully operational and bringing in more team of health workers. **Currently 16 ETCs are operational** and more than 40 are being built as field hospitals. **The major gap is for medical staff : we need 20 teams each of 25+ international staff and 200 nationals to staff the ETCs** . The number of Ebola cases is increasing exponentially and so is the number of medical teams that need to be deployed to the affected hot spots in West Africa.
- WHO is working closely with governments and partners at the highest level to recruit teams and deploy resources and equipment. We estimate that **200 to 250 medical staff are needed to safely manage an Ebola treatment facility with 70 beds**.
- Teams of health workers were sent to date by Cuba (with a multidisciplinary team of 165 workers having arrived in Sierra Leone), China (59 people from Chinese CDC as well as a mobile laboratory team sent to Sierra Leone), Canada, Russia (mobile lab) and Uganda (health workers experienced in Ebola working in Liberia). Negotiations are underway with Germany, Japan, Sweden, Thailand and the Philippines.
- Bed capacity and bed requirements for patients with Ebola virus disease as of 13 Oct:

Country	Current number of beds	Estimated number of beds required	Current capacity/estimated
Guinea	160	610	26%
Liberia	786	2120	37%
Sierra Leone	281	882	32%
<b>totals</b>	<b>1227</b>	<b>4388</b>	<b>39%</b>

- In Liberia, the Island Clinic and a new clinic at the former Ministry of Defence site provide more than 300 beds for Liberia. A tented centre was set up in Bong county, operated by IMC after WHO provided training. The US military is building large 100-bed units although there is still a shortage of medical teams to staff them. MSF has large facilities in both Foya and in Monrovia.
- In Sierra Leone, the Red Cross (IFRC) runs a 60-bed facility in Kenema and MSF has a large Ebola Training Unit. The UK government is going to supply 700 beds in facilities that will be run by foreign medical teams and NGOs.

### Community Care Centres

- Treatment centres cannot cope with the escalating numbers. Patients are being **turned away** and the majority of Ebola patients are at home being cared for by family members or wandering around trying to get into a treatment centre. They are in the community where they can infect others.
- Small community-based centres need to be set-up fast to **get Ebola patients out of their houses**, prevent them from spreading the disease to family members and friends while remaining near them, and provide lifesaving care (including hydration, food, pain relief and antimalarial medication) before they go to an Ebola Treatment Unit.
- WHO has developed guiding principles for **Community Care Centres (CCUs)** that include community and family engagement, and provisions for the management of the structures. WHO is also **training local health workers** to provide care in Community Care Centres across Liberia and Sierra Leone where the first of these centres have recently opened.
- They have been referred to as 'ECUs' (Ebola Care Units) but aims to attract all patients with fever or other symptoms.

### Logistics - PPE and other supplies

- As part of the roadmap exercise, WHO estimated that close to 300 000 personal protective equipment (PPE) per month are needed (based on an estimated need for 7 PPE suits per bed per day). WHO shipped 240 000 PPE sets in October and UNICEF, MSF and others are also supplying PPEs. Forecasts are regularly revised.
- Early October WHO convened a meeting to review our guidelines for Personal Protective Equipment for Ebola. Many of the experts in the room had personal experience caring for Ebola patients for long gruelling hours in the sweltering heat while wearing heat-retaining protective gear. They reviewed available data on virus transmission and feedback from frontline health care workers, including 50 in-depth surveys collected from clinicians who have deployed to fight Ebola since this outbreak began. **Evidence-based recommendations on minimum standards** for each type of gear including gloves, gowns, eye protection, respiratory protection, head covers, and boot covers will soon be published.

- Other required resources include **vehicles** for transport, including of bodies for burials, motorcycles for contract tracing, **chlorine** for disinfecting, **body bags** for safe burials, food for people in quarantine areas.

### Laboratory capacity

- 11 laboratories (2 in Guinea, 5 in Liberia, and 4 in Sierra Leone) are now operating at full capacity for case confirmation. However, laboratory data are yet to be fully integrated with clinical surveillance systems. A Russian Mobile Laboratory will become operational in Macenta, Guinea and a Public Health England one in Sierra Leone. Austria has offered a mobile laboratory.
- At present, overall testing capacity stands at 200 samples per day in Guinea, 470 in Liberia, and 300 in Sierra Leone.
- Laboratory-confirmed cases must test positive for the presence of the Ebola virus, either by detection of viral RNA by RT-PCR, and/or by detection of Ebola antigen by a specific Antigen detection test, and/or by detection of immunoglobulin M (IgM) antibodies directed against Ebola. Two negative RT-PCR test results, at least 48 hours apart, are required for a clinically asymptomatic patient to be discharged from hospital, or for a suspected Ebola case to be discarded as testing negative for the virus.
- Laboratory results should be communicated to WHO as quickly as possible, in addition to reporting under the requirements and within the timelines set out in the International Health Regulations.

### Safe burials

- Burial rituals in West African involve the family washing the body and the mourners laying their hands on the departed, creating many opportunities for transmission of the virus. Guidance on safe and dignified burials has been shared by WHO and efforts are conducted with anthropologists to ensure safer practices. For example, the ritual washing must be replaced by the more symbolic disinfectant sprays of chlorinated water.
- In Liberia, where new sanitary burial practices angered locals who felt they were authoritarian, impersonal and sacrilegious, an Ebola Task Force has been established and is now able to dispatch trained dead-body-management teams to Ebola treatment centres and into communities to conduct safe burials. In Sierra Leone, mechanisms for safe burial are now in place in all 14 districts.

## Social mobilization

- Rapidly scaling up **community engagement** is essential to reduce transmission through safer burials (e.g. by trained community burial teams), isolation of cases (i.e. in Community Care Units') and early detection of suspect cases (i.e. through community monitoring).
- In Guinea religious leaders delivered Ebola-prevention messages in 7000 sermons across the country. An SMS-based campaign on hygiene practices was also conducted. Denial of the existence of Ebola remains a challenge, especially in Liberia.
- A working group of representatives of faith-based organizations was established to collaborate with WHO, UNICEF and IFRC to ensure that religious and cultural practices are included as part of the technical guidelines on safe and dignified burials.

## IHR Emergency Committee and Preparedness

- WHO's Director-General declared on 8 August 2014 that the 2014 Ebola outbreak in west Africa continued to constitute a **Public Health Emergency of International Concern**.
- **The International Health Regulations' Emergency Committee** recommended that **all States should be prepared to detect, investigate, and manage Ebola cases**. This includes access to a qualified diagnostic laboratory for Ebola, and the capacity to manage travellers returning from Ebola-infected areas who arrive at international airports or major land crossing points with unexplained febrile illness. Neighbouring States should also urgently establish surveillance for clusters of unexplained fever or deaths due to febrile illness; ensure that health workers are trained in IPC procedures; and establish rapid response teams with the capacity to investigate and manage Ebola cases and their contacts.
- The third IHR EC meeting is meeting on 22-23 October with a focus on entry and exit screening.
- WHO **does not recommend banning travel and trade** (except for people who have symptoms of Ebola or who may have had contact with someone infected with Ebola in the previous 21 days). Travel bans are impossible to apply effectively due to uncontrolled land borders, incubation periods and reliance on people's filling forms correctly. In addition, they would result in major negative economic impact on countries experiencing outbreaks of Ebola. Such bans would increase poverty and social unrest and ultimately have a negative impact on the control of the outbreak.
- **Preparedness is key**. Strong systems should be in place in every country to pick up suspected cases. Health workers everywhere need to be able to recognize Ebola symptoms, ask the person's travel history and know what to do to prevent other people from getting infected. Strict infection control procedures need to be in place to protect health workers. Senegal and Nigeria did it and managed to contain introduced cases.

## Deployment and Medical Evacuation

- WHO recognizes the **extraordinary burden carried by doctors and health workers** in Ebola-affected countries and is working to ensure the safest conditions possible for staff deployed to the field and any health-care workers providing care to patients with Ebola.
- WHO roadmap assumptions for international staff are for more than 600 international staff. Given that most deployments will be for 4-6 weeks, this would translate into 3600 deployments over 6 months), to complement about 11 000 national staff.
- International aid workers that are going to help the Ebola fight in West Africa need to receive the same level of care in case of infection as available in their home country. In some cases, this may involve **medical evacuation**. This is also an assurance to continue having international workers available to go and help there.
- At the same time, the international community is working to establish **treatment facilities to treat international responders**. The UK is building a 12-bed facility within Kerry Town's ETC in Sierra Leone and the USA have constructed a 25-bed hospital in Liberia for international and Liberian medical staff only that will open next week.
- People who have travelled to one of three West African countries currently affected by Ebola virus disease (Guinea, Liberia and Sierra Leone) and are unaware of having been exposed to the disease can go about their life as they normally would - being with friends and family, reporting to work, and taking part in social activities. However, **for 21 days after returning from travel they should:**
  - Stay within reach of a good quality health facility
  - Report a fever above 38 degrees Celsius to their local medical emergency service
  - Be aware of the symptoms of infection (sudden fever, intense weakness, muscle pain, headache, followed by vomiting, diarrhoea, rash, and sometimes bleeding).
- There are 8 Biosafety level-4 (BSL 4) laboratories in EU/EEA and 2 of them are WHO collaborating centres (WHO/CC): Bernhard Nocht Institute of Tropical Medicine in Hamburg, Germany and the Pasteur Institute in Lyon, France. In case Ebola testing is needed, WHO facilitates the liaison between the country and the WHO/CC laboratory so that they can bilaterally agree on sampling and shipping of specimens.

## Funding

- **US\$ 1 billion** is estimated to be needed to defeat this outbreak according to OCHA's [Outbreak Overview of Needs and Requirements document](#). Half of it is required for the core health response to stop Ebola transmission over the next 6 months. To date, only US\$ 365 million have been received (37%). The international community needs to act much faster and stronger if we are to stop the spread of Ebola in the 6 to 9 months.

- Some **US\$ 260 million are estimated for WHO operations** . We have received US\$ 125 million to date (48% of requirements) and an additional US\$ 42 million is being pledged.
- Traditional big humanitarian donors such as the US, the UK, Canada, Kuwait, Australia, Sweden but also the World Bank, the African Development Bank and the European Commission (ECHO) have made significant contributions. Cuba or China are providing teams of health care workers.
- The UN has established the **Ebola Response Multi-Partner Trust Fund**.

## WHO Response and Capacity

- As soon as WHO received notification from Guinea in **late March** that the first cases of Ebola Virus Disease had been identified, we immediately increased **our operational response to level 2**, and mobilized experts to Guinea, then to Liberia and Sierra Leone through our Global Outbreak Alert and Response Network (GOARN).
- We then began to operate out of our Strategic Health Operations Centre at WHO in Geneva; hold daily calls with Ministries of Health and our staff in Africa; involve Ebola experts, epidemiologists, logisticians, laboratory experts and field coordinators; send additional staff to support our offices in Conakry, Freetown, and Monrovia, and to our Regional Office for Africa in Brazzaville. By early **May**, WHO had **deployed more than 110 experts** to assist in the response.
- In **mid-June**, WHO continued to **ramp up its technical support** to the three countries by designating an outbreak response coordinator based in Conakry, Guinea and sending a high-level technical team to enhance response, coordination, information management, and communication.
- **At the very end of June things changed.** The WHO experts who tracked the outbreak daily, began to see the first signals on the epidemiological curve that this outbreak could be different from others. Over the next four weeks, WHO escalated its response every week and convened in 2-3 July an **emergency ministerial meeting** in Ghana to develop a coordinated strategy to contain the outbreak; upgraded its operational response to **level 3** on 24 July, bringing in additional resources and opened the day after a **Sub-regional Outbreak Coordination Centre** in Conakry, Guinea to allow real-time management of the response activities.
- **Early August**, WHO convened the **Emergency Committee under the International Health Regulations** that lead to the Declaration of a public health emergency of international concern and the provision to the international community of guidance to help prevent further spread of the disease. The Emergency Committee met on 22 October to review the situation and reiterated that there should be no general ban on international travel or trade.
- Since 3 months now, **WHO is leading the international community on the health strategy** required to control this outbreak and is also **engaged in the front line as a provider of last resort** on a package of interventions in the areas of surveillance, case management, laboratory services, contact tracing, infection control, logistical support, community engagement, and safe burials:

- As **guardian of the International Health Regulations**, WHO has activated the internationally binding instruments to ensure appropriate response and preparedness measures are taken for the health security of all Member States. WHO has identified **14 priority countries** and has developed a comprehensive checklist of core principles, standards, capacities and practices to help countries assess their level of preparedness, guide their efforts to strengthen themselves and to request assistance.
- WHO has lead the overall **operational planning for a massive scale-up in the response within UNMEER**. This included the design of the 5 steps strategy to control the outbreak and needs assessment exercises for all aspects of the health response.
- As **Health Cluster leader in humanitarian emergencies**, WHO is coordinating the response efforts of all government and partner organizations such as MSF, the Red Cross, IMC mobilized in this outbreak aside the affected countries. A critical aspect of this role is the coordination of the **foreign medical teams** with supplying and receiving governments, and the technical assistance with standard requirements for high-caliber FMTs including skill sets, logistics, deployment process.
- WHO is working with affected countries Ministries of health to provide the technical support needed for effective case finding and contact tracing. This includes in setting-up and managing **adequate surveillance systems**, conducting **investigations** on HCW infections and rumours of Ebola cases, or facilitating **access to two BSL 4 laboratories** in Hamburg and Lyon.
- In the critical area of **infection prevention and control**, WHO has supplied health workers with protective gears (**PPEs**) and **trainings** on IPC practices. The WHO free teleclass series on this attracted more than 73 000 online participants, including from the Ministries of Health of most African countries. WHO is sponsoring the Sierra Leone's Ebola training academy on IPC and clinical case management and has designed the curriculums. 35 Liberian health workers were trained in Bong, and trainings were also conducted in both Liberia and Sierra Leone on **community care**.
- WHO provides **expertise to guide policy and clinical practice**: one week into the outbreak, in March 2014, WHO published an emergency guidance for the clinical management of patients with haemorrhagic fever as a pocket guide for the front-line health workers. In September, we developed guiding principles for Community Care Centres (CCUs). The technical guidelines on safe burials are also in use. A review on PPEs standards for Ebola will soon make its recommendations. This public health advice is key to inform medical staff and other international responders on transmission risks and safety measures.
- WHO is catalysing international efforts in research and innovation for **accelerating the availability of treatments and vaccines**. Ethical guidance for their early use has been provided to the international community.

- WHO plays a leading role in the **Travel and Trade Task Force** that was established in August 2014 to support the global efforts to contain the spread of Ebola virus disease and provide a coordinated international response for the travel and tourism sector. Some of the guidance developed includes procedures for caring safely for travellers who are suspected to be infected with Ebola on board an aircraft or ship, or at arrival points, and information for governments to provide travellers arriving or leaving airports or other transit points.
- To date **more than 340 people** have been deployed from the **WHO/GOARN network** and WHO has fund-raised and re-injected in the response some **\$ 125 million**.
- The global financial crisis required almost \$1 billion cuts from WHO's two-year budget, which is now \$3.98 billion for the 2014-15 biennium. Large staff cuts have meant that there are fewer staff working on emergency response and disease outbreaks, both in HQ and in Regional Offices.
- Voluntary contributions make up around 77% of total WHO funds, meaning that many donors have been specifying where they want their money spent. This is not always where the greatest health needs are in the world.
- For the first time ever, **WHO is dealing with 5 Level-3 emergencies all at the one time** (Central African Republic, Iraq, South Sudan, Syria and West Africa).
- In humanitarian crises, our leadership role obliges us to be the provider of health services as a last resort. This can mean anything from coordinating the running of multiple health strategies in communities, such as immunization drives to equipping health facilities, to, even in some situations, delivering actual health care services.

For more **information**

WHO website has a wealth of information on this Ebola outbreak:

<http://www.who.int/csr/disease/ebola/en/>

The Ebola Virus Disease fact sheet can be found at

<http://www.who.int/mediacentre/factsheets/fs103/en/>

The latest situation reports under <http://www.who.int/csr/disease/ebola/situation-reports/en/>

WHO is recruiting logisticians, epidemiologists, infection control specialists:

<http://www.who.int/employment/vacancies/en/>

The United Nations Foundation has set up a fund that accept donations from individuals and civil society organizations to directly support the response by United Nations agencies (principally WHO):

<http://www.unfoundation.org/ebolafund>

