Note for the record

The Chair opened the meeting and introduced the purpose of the call as a desk review to assess WHO’s response to the outbreak of yellow fever in the Democratic Republic of the Congo (DRC) following the deferment of the country visit due to the current political situation. The ad-hoc teleconference was attended by four members of the Independent Oversight and Advisory Committee (IOAC) and key WHO staff from HQ, AFRO and the DRC country office.

The Chair acknowledged the Yellow Fever Strategic Response Plan June–August 2016 as key reference and invited the AFRO representatives to give an overview of the situation, including the recent outbreak of cholera in DRC.

Dr Yoti briefed the group on the epidemiological situation and summarised the WHO response, as laid out below.

**Epidemiological update**

Since late December 2015, an unprecedented urban outbreak of yellow fever has been observed in Angola and DRC. The outbreak in Uganda was controlled in a timely manner and the imported cases to China and Kenya did not lead to local transmission.

The epicentre of the outbreak was Angola, with 4188 suspected cases and 373 deaths from all 18 provinces. Since the start of the outbreak in late December 2015, 884 cases have been laboratory confirmed, including 121 deaths. The last confirmed case had symptom onset on 23 June.

In DRC, 76 confirmed cases have been identified from 2345 suspected cases that have been laboratory tested, with 16 deaths from 1 January to 18 September. Most of the cases acquired infection in Angola. No confirmed cases have been reported in Angola since 23 June and in DRC since 12 July.

The main risk factors for the outbreak in Angola and DRC include the low coverage of routine vaccination for yellow fever and the increased numbers of mosquito vectors following rainfall. In fact, outbreaks of other mosquito-borne diseases such as Zika virus disease and malaria have also been observed. Dr Yoti noted that yellow fever should be seen in the bigger context of diseases related to climate change and that activities for vector control need to be strengthened.

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1 Of the 76 confirmed cases, reported from eight provinces, 57 acquired infection in Angola, 13 are autochthonous, and six are cases of sylvatic transmission (not related to the outbreak). Source: SITREP http://apps.who.int/iris/bitstream/10665/250147/1/yellowfeversitrep23Sep16-eng.pdf?ua=1
Response summary
The countries have implemented both reactive and pre-emptive vaccination programmes to curb the spread of the outbreak as per the WHO Strategic Response Plan. The mass vaccination campaigns in Angola and DRC were one of the largest responses, resulting in over 28 million people vaccinated for yellow fever.

Angola has registered about 95% coverage, with 16.2 million people vaccinated across 17 districts. Phase II of the vaccination campaign targeting 2.1 million in 12 districts was postponed due to logistical challenges but was rescheduled to begin the second week of October. In DRC, more than 7 million people in Kinshasa province have been vaccinated (fractionated dose) within two weeks, reaching coverage close to 100%. The pre-emptive vaccination campaign ended on 5 September and independent monitoring assessed that the vaccination coverage was 98.2%. Monitoring continues in the 62 health zones where the pre-emptive vaccination campaigns were conducted last month. The 10 day reactive vaccination campaign in Feshi and Mushenge health zones in Kwango province is planned in early October. Recent political unrest may pose operational challenges.

On the International Health Regulations Emergency Committee’s recommendations, WHO is also planning a pre-emptive vaccination campaign in high-risk areas of the Republic of Congo, given the large movement between Kinshasa and Brazzaville. WHO is working on microplanning to reach the target population (4.8 million people) and will submit a request for vaccines to the International Coordinating Group.

Dr Yoti noted that other response activities include vector control, community engagement, and social mobilization to provide information to the community regarding surveillance and case management.

Cholera outbreak
A simultaneous outbreak of yellow fever and cholera in DRC represents a serious health threat and poses major challenges for response. The outbreak of cholera in DRC is graded a level 2 emergency.

Dr Sodjinou briefed that, as of 21 September 2016, a total of 20,135 cases have been reported, with 585 deaths (2.9% case fatality rate). The geographical spread is also occurring near borders, underscoring the need for cross-border and sub-regional approaches to cholera control.

The Country Office has established an incident management system but still needs to fill positions including for case management, prevention, control and risk communication. WHO has developed a joint operational plan and supported the Ministry of Health to develop a national plan.

Dr Sodjinou noted that the cholera epidemic should not be managed by the health sector alone and that a multisectoral approach is required as it involves water and sanitation, health education and community mobilization. He added that some of the areas are hard to reach and that the Country Office is working very closely with the Ministry of Transport.

As the rainy season has just started, control activities should be strengthened at country level.
WHO is working closely with partners including UNICEF, the US Centers for Disease Control and Prevention (CDC), Médecins Sans Frontières (MSF), Alima, and GAVI.

The major gap is funding. Currently the Country Office is working with the WHO contingency fund and is planning to submit funding proposals to Japan and CDC. It is critical to mobilize operational funds for implementation.

The briefing was followed by a question and answer (Q&A) session.

**Q&A**

**Q1:** What was the budget for the yellow fever response and how much has WHO received so far?
**A1:** As soon as the Strategic Response Plan launched, US$1 million was mobilized and that was extremely useful for moving ahead with the response. For DRC pre-emptive vaccination plans, a total budget of $34 million was proposed and donors’ responses have been positive.

**Q2:** What has been done for vector control alongside the yellow fever vaccination campaign?
**A2:** In DRC, an effort by the government to spray houses was supported by the partners, and social mobilization and messaging around mosquito bites have also been carried out with support from partners such as MSF and UNICEF. Angola is benefiting from Cuban cooperation that has been operating for malaria and vector management. The Cuban cooperation has already started conducting anthropological assessments in all areas covered by the vaccination campaigns. Data will provide further information on where to focus the control activities in the next phase. Vector control in urban areas is one of the most challenging areas of work and further work also needs to be done for malaria and other vector-borne diseases.

**Q3:** The 95% coverage of the vaccination campaign is impressive. Is there any quality assurance system to guarantee that the data are accurate?
**A3:** A strong independent monitoring system has been put in place with the methodology of sampling households in all areas where the campaign was held. The household survey covered over 84,000 individuals and found that 82–83% of them were vaccinated, which gave a coverage of 98.3%. More details on the methodology will be provided if required.

**Q4:** Following vaccination with the fractionated dose, is there any plan for re-vaccination? What is the strategy for the next phase?
**A4:** A surveillance system has been put in place and an immunogenicity study is ongoing to monitor how long the fractionated dose can protect populations. WHO is working on the long-term strategy for elimination of yellow fever in consultation with partners including GAVI.

**Q5:** How was the demand-side behaviour? Is there any resistance or refusal from the community?
**A5:** The response and participation from the community was very positive. Refusal of vaccination was rarely found. Social mobilization and community engagement have been critical before, during and after the vaccination campaign.
Q6: What are the challenges of the border countries (for example Congo, Botswana, Namibia) and what needs to be done for high-risk countries?
A6: Control at point of entry needs to be strengthened and the yellow fever vaccination entry requirements should be respected. Issuing a certificate after vaccination is a challenge in many countries. WHO’s current strategy is to inform all countries and ensure that they have capacities to detect quickly and respond effectively. WHO is organizing conferences and training with the emphasis of correctly applying case definition, strengthening laboratory capacities, and quickly implementing reactive vaccination campaigns to contain the outbreak. For the Republic of the Congo, WHO is planning a pre-emptive vaccination campaign in high-risk areas (Brazzaville and Pointe Noire). As part of the bigger strategy, it would be critical to strengthen the routine Expanded Programme on Immunization to include yellow fever. For the long-term perspective, WHO is planning to present to the next World Health Assembly a plan to vaccinate all high-risk countries over the next 10 years or more.

Q7: What kind of activities constitute social mobilization and risk communication in DRC?
A7: There was a great deal of support from HQ and AFRO in social mobilization and community engagement. The involvement of the community was great. Even after the end of the vaccination campaign in Kinshasa, social mobilizers continue to publicize “mop-up” campaigns to ensure that every last person has the opportunity to protect themselves and help end the outbreak.

Q8: How is WHO coordinating with the Ministry of Health, partners and civil society at the country level?
A8: The Country Office works closely with the Ministry of Health and maintains a good relationship. The Country Office has a national Global Health Cluster coordinator, and humanitarian coordination also includes civil society. WHO weekly situation reports have been shared with the partners on the ground and the Country Office has made all necessary efforts to engage with the partners. For example, the partners involved in the DRC mass vaccination campaign are invited to attend a regular meeting which is coordinated by the WHO Country office.

Q9: Which partners are involved at national and international levels? How many UN agencies are involved? How does WHO work with them?
A9: There are numerous partners involved in the WHO response to the yellow fever outbreak in DRC. They can be differentiated as technical partners, operational partners and donors. Each partner has brought its support and contributed to the success of the DRC mass vaccination campaign—for example, UNICEF for social mobilization, Germany for mobile laboratories, MSF for case management and vector control, Institut Pasteur for laboratory components, International Migration Organization for helping to implement cross-border actions, Alima for vector control, and Japan, the World Bank, CDC, GAVI and the Gates Foundation for vaccination.

Q10: Can you describe how the oneness component across the three levels of WHO has been implemented in the yellow fever response in DRC?
A10: The WHO Health Emergencies Programme has dramatically improved the way of communicating with each other and working together. HQ has reached out to AFRO and the country offices and involved them in developing the Strategic Response Plan. The incident management
systems (IMS) have been established at three levels with respective roles. Yellow fever is graded a level 2 emergency, which implies that the Country Office requires a strong IMS with support from the Regional Office. HQ has played the major role in vaccine shortage issues. WHO has sent more than 30 million vaccine doses to Angola and DRC through the International Coordinating Group global stockpile, with additional vaccine doses from the manufacturer Bio-Manguinhos in Brazil. The IMS structures have clearly indicated who are the focal points at each office and the process has been set up to keep everyone informed. At the beginning, three-level teleconferences were held twice per week and later focal points worked on a daily basis through email or phone to streamline communication. Thanks to the coordination among the three levels of office, to date 158 experts have been deployed to two countries. In terms of finance, there is maximum transparency and coordination among the offices as everyone knows where the money goes and where it is spent. WHO has worked as one office for the yellow fever outbreak.

Q11: How do you explain the four months of delay from the confirmation of the cases in Angola to the establishment of the IMS?
A11: HQ’s IMS was established after four months, but the Country Office and AFRO had taken immediate actions soon after the outbreak in Angola was reported. The background document with yellow fever timeline that is provided to the IOAC is incomplete.

Final remark and follow up action points

The Chair has asked the WHO Secretariat to provide a comprehensive progress report against the Yellow Fever Strategic Response Plan, June–August 2016 with a focus on what has been achieved, what are the measures taken by WHO and how effective the response has been, and what are the gaps, including a breakdown of finance.

The group has recommended that the progress report should include interactions with partners and donors, cluster coordination at the country level in DRC, management of simultaneous outbreaks such as cholera, WHO’s oneness component in the yellow fever response, how to institutionalize the oneness component for other emergencies, and outlines of business processes for HR deployment, fund disbursement and vaccine supply.

The WHO Secretariat is committed to submitting the requested progress report by mid-October 2016 for the IOAC’s review.
Annex. List of Participants

IOAC Members

1. Ms Precious Matsoso (Chairperson), Director General of Health, South Africa
2. Dr Geeta Rao Gupta, Deputy Executive Director, UNICEF
3. Dr Felicity Harvey, Director General for Public and International Health, UK
4. Dr Hiroki Nakatani, Professor for Global Initiatives, Keio University, Japan

WHO Secretariat

Democratic Republic of the Congo

- Dr Yokouide Allarangar, WHO Representative
- Dr Tiekoura Coulibaly, Yellow fever Incident Manager
- Dr Vincent Sodjinou, Cholera Incident Manager
- Dr Ernest Dabire, Coordinator Cluster HSE
- Dr Sambou Bakary, Coordinator Cluster DPC
- Dr Moïse Yapi, Coordinator Cluster IVD
- Dr Rosine Sama, ODM/HSE
- Mr Etukudo Akpan, OO/WHO
- Mr Abdoulaye Doumbia, FSO/AFRO
- Mr Basile Yapi, AO/IVD
- Mr François Akoa, AO/IM Yellow fever

African Regional Office

- Dr Zabulon Yoti, Technical Coordinator, WHE/AFRO
- Mr Etienne Magloire Minkoulou, Acting Yellow fever Incident Manager and Technical Officer, WHE/AFRO

Headquarters

- Dr Isabelle Nuttall, Director of the Office of the Director-General
- Dr Wilton Menchion, Yellow Fever Incident Management Team
- Ms Munjoo Park, IOAC Secretariat