

**International Coordinating Group on Vaccine Provision  
for Yellow Fever**

**Annual meeting  
13-14 September 2016**

© World Health Organization 2017

Some rights reserved. This work is available under the Creative Commons Attribution-NonCommercial-ShareAlike 3.0 IGO licence (CC BY-NC-SA 3.0 IGO; <https://creativecommons.org/licenses/by-nc-sa/3.0/igo>).

Under the terms of this licence, you may copy, redistribute and adapt the work for non-commercial purposes, provided the work is appropriately cited, as indicated below. In any use of this work, there should be no suggestion that WHO endorses any specific organization, products or services. The use of the WHO logo is not permitted. If you adapt the work, then you must license your work under the same or equivalent Creative Commons licence. If you create a translation of this work, you should add the following disclaimer along with the suggested citation: "This translation was not created by the World Health Organization (WHO). WHO is not responsible for the content or accuracy of this translation. The original English edition shall be the binding and authentic edition".

Any mediation relating to disputes arising under the licence shall be conducted in accordance with the mediation rules of the World Intellectual Property Organization..

**Suggested citation.** International Coordinating Group on Vaccine Provision for Yellow Fever Control: annual meeting 13-14 September 2016. Geneva: World Health Organization; 2017. Licence: CC BY-NC-SA 3.0 IGO.

**Cataloguing-in-Publication (CIP) data.** CIP data are available at <http://apps.who.int/iris>.

**Sales, rights and licensing.** To purchase WHO publications, see <http://apps.who.int/bookorders>. To submit requests for commercial use and queries on rights and licensing, see <http://www.who.int/about/licensing>.

**Third-party materials.** If you wish to reuse material from this work that is attributed to a third party, such as tables, figures or images, it is your responsibility to determine whether permission is needed for that reuse and to obtain permission from the copyright holder. The risk of claims resulting from infringement of any third-party-owned component in the work rests solely with the user.

**General disclaimers.** The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of WHO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

The mention of specific companies or of certain manufacturers' products does not imply that they are endorsed or recommended by WHO in preference to others of a similar nature that are not mentioned. Errors and omissions excepted, the names of proprietary products are distinguished by initial capital letters.

All reasonable precautions have been taken by WHO to verify the information contained in this publication. However, the published material is being distributed without warranty of any kind, either expressed or implied. The responsibility for the interpretation and use of the material lies with the reader. In no event shall WHO be liable for damages arising from its use.

This publication contains the report of the meeting of International Coordinating Group on Vaccine Provision for Yellow Fever Control and does not necessarily represent the decisions or policies of WHO.

## Table of Contents

Abbreviations .....	4
Executive summary .....	5
1. Review of ICG activities and ICG emergency stockpile .....	6
1.1 Outbreak events and response .....	6
1.2 Performance indicators .....	7
1.3 Update on YF emergency stockpile balance and Revolving Fund .....	8
1.4 Decision making process – vote versus consensus .....	9
1.5 YFV production and supply forecast .....	9
2. Progress on implementation of yellow fever immunization .....	9
2.1 Angola and DRC outbreak and lessons learned .....	9
2.2 Epidemiological situation of YF in Latin America and vaccination activities .....	10
2.3 Routine EPI in AFRO at district level – Angola, DRC and Togo .....	10
3. Outbreak response and prevention strategies .....	11
3.1 Risk assessment update and plans for 2016 and 2017 .....	11
3.2 YF initiative GAVI support.....	11
3.3 Update on the new YF control strategy – YF long term strategy.....	11
4. Vaccine procurement update 2015 - 2016 .....	12
5. Discussion.....	12
6. Recommendations .....	15
Annex I: 2008-2016 Outbreak Response.....	18
Annex II: Estimated Global supply 2017-2026 (risk adjusted) .....	19
Annex III: Manufacturers’ efforts to increase access to YF vaccine .....	20
Annex IV: List of participants .....	21
Annex V: Agenda.....	22

## Abbreviations

AFRO	WHO African Regional Office
CO	Country Office
DRC	Democratic Republic of Congo
EPI	Expanded programme on immunization
Gavi	Global vaccine alliance
ICG	International Coordinating Group on Vaccine Provision for Yellow Fever Control
IPD	Institute Pasteur Dakar
IM	Incident manager
IMS	Incident management system
M	Million
MOH	Ministry of Health
OC	Operational costs
PAHO	Pan American Health Organization
PO	Purchase order
SD	(UNICEF) Supply Division
SP	Sanofi Pasteur
RA	Risk assessments
RI	Routine immunization
RF	Revolving fund
UNICEF	United Nation Children's Emergency Fund
WHO	World Health Organization
YF	Yellow Fever

## **Executive summary**

On 13 and 14 September, the International Coordinating Group (ICG) on vaccine provision for Yellow Fever held its annual meeting to review the activities during 2015-2016 and epidemic response and to define the vaccine needs of the 2017 Yellow Fever vaccine stockpile. Discussion also focused on the Yellow Fever ICG mechanism, including the decision making process and criteria for vaccine release; the communication of the requests to countries and partners; the forecasting for 2017; the procurement strategy and processes (modus operandi); and the financing strategy. On the second day with the ICG extended partners the focus of the discussion was to share information with donors and manufacturers on the vaccine demand and projected supply of Yellow fever vaccine.

The epidemic season in 2016 was quite busy with large outbreaks in Angola and Democratic Republic of Congo. Over 30M doses Yellow Fever vaccines were distributed. At the same time, this season was complicated regarding obtaining funds (for Gavi non eligible countries) for both vaccines and operational costs. Based on the experience this season, the important role of the ICG and the ICG revolving fund in outbreak response was underlined.

The stockpile consisted of 6 million doses for the 2016 epidemic season and was replenished three times. A total of 30,203,430 Yellow Fever were shipped to respond to Angola, Democratic Republic of Congo and Uganda (total of ten requests for vaccines). The average time between the ICG approving the request up to the vaccine arriving in the country was 8.8 days, which is longer than the stipulated seven days by the ICG. The Revolving Fund was used to cover costs of vaccines for the Democratic Republic of Congo and Angola. It should be noted that without the revolving fund the response to Angola would not have been possible.

The main challenges identified by the ICG during the meeting include:

1. Number of cases reported include both the laboratory confirmed positive and negative cases (section 1)
2. Independent vaccine coverage surveys are not systematically conducted (section 1)
3. Absence of funding for vaccines and operational costs in non-eligible Gavi countries caused delays in the obtaining vaccines and consequently delayed implementation of the vaccination campaigns resulting in a wider spread of the epidemic (Section2)
4. Special emergency procedures are needed at WHO for rapid use of the revolving fund or the Emergency Contingency Funds (section 5)
5. Funding for vaccines should be provided as a package also covering operational costs (section 5)
6. The incident manager needs to consolidate all epidemiological data and verify the vaccine requests (Section 5)
7. Distinction between eligible and non-eligible GAVI countries hinders rapid outbreak response for resource poor countries and fragile states (section 5)

The ICG Members reached consensus that the YF outbreak forecast for 2017 will be six million doses of yellow fever vaccine. However, as in 2017 the emergency stockpile will be more a revolving mechanism, a constant of 6 million doses will be maintained throughout the year. The

members also agreed to continue to make decisions by consensus versus by vote/majority process.

The meeting concluded that a communication package for all partners is needed, as well as a section in the request form on demanding independent vaccine coverage survey as part of reporting requirements. The ICG recommends to the International Health Regulations that YF vaccination should be enforced for travellers and proof (vaccination cards) demanded at border settings and all point of departures. In addition, the WHO emergency mechanism needs to ensure quick access to the revolving fund to rapidly procure vaccines in emergencies to improve outbreak response. The ICG also recommends Gavi to no longer separate eligible and non-eligible countries during outbreak response.

## **1. Review of ICG activities and ICG emergency stockpile**

### **1.1 Outbreak events and response**

In 2016, large outbreaks were reported in Angola, Democratic Republic of Congo (DRC) and Uganda. In Angola alone, over 3867 - 5000 suspected cases were reported. This figure also includes the discarded cases which tested negative. The International Coordination Committee (ICG) for YF vaccine provision strongly suggests that the World Health Organization (WHO) should indicate only the number of positive laboratory confirmed cases and suspected cases reported and remove the negative cases. The DRC faced a different problem where in the Equator province YF is endemic and the large outbreak in the south of the country resulted from imported cases arriving from Angola. In the capital Kinshasa, exceptionally, a vaccination campaign was conducted with fractionated doses (8M doses used and in the border area another 3M doses). A follow up campaign with full doses will be needed to ensure lifelong protection. International spread of YF occurred to Mauritania (1), Kenya (2) and China (11). As a result of the YF outbreak risk elimination through mass campaign over the last years in West Africa, most countries are immunized. At present, however, Nigeria, a high endemic country has not been completely vaccinated.

In Latin America, Peru, Brazil and Colombia reported sylvatic YF outbreaks in 2016, not linked to the African outbreak. Each year in Peru YF cases are detected, however, in 2016, cases were also imported to non-endemic areas.

The administrative coverage is the theoretical coverage, i.e. the number of doses distributed per population. An independent vaccine coverage survey is required to obtain the real coverage. Angola was requested to conduct an independent vaccine coverage survey. Currently one is carried out in Luanda, and thereafter will be expanded to other areas of vaccination. Conducting an independent vaccine coverage survey is recommended systematically by WHO, as well as by the ICG when target population is > 100,000 people. In some areas the vaccine coverage data is more important, especially if a risk of expansion of the epidemic exists. Sometime, the lack of vaccination cards has complicated this. It would be useful if countries would include the methodology of the survey in the evaluation report.

## 1.2 Performance indicators

The beginning of 2016 was complicated due the large epidemic in Africa. The flexibility of the ICG Members has been key to the success of the outbreak response. The public health importance and political context were taken in to consideration and the results reflected this.

A total of 36,741,757 YF vaccine doses were requested of which 30,203,470 doses were shipped, as can be seen in table 1 below.

Country	Date received (2016)	Vaccines requested by country	Approval (total/partial)	Quantity shipped*
Angola #1	29 Jan	1,761,674	1,761,674	1,761,700
Angola #2	4 Feb	5,760,302	5,593,400	5,593,400
Angola #3	26 March	4,334,900	4,334,900	4,334,900
Uganda #4	22 April	714,579	714,579	714,600
Uganda #4bis	9 May	61,670	61,670	61,670
DRC #5	26 April	2,201,792	2,201,800	2,201,800
Angola #6	27 May	5,871,868	3,335,800	3,335,800
DRC #7	14 June	3,260,760	1,083,005	1,083,000
Angola #8	27 June	1,663,610	Not approved	0
DRC #9	18 July	5,770,000	5,770,000	5,770,000
Angola #10	24 August	3,100,000	3,100,000	3,100,000
DRC #11	30 August	340,542	340,542	340,500
Angola #10bis	30 August	1,906,060	1,906,060	1,906,100
<b>Total</b>		<b>36,747,757</b>	<b>30,203,430</b>	<b>30,203,470</b>

\*shipped quantities vary from approved quantities due to packaging

**Table 1:** vaccines requested and shipped

The request #8 from Angola was not approved as the proposed areas targeted for vaccination were already included in request #6 and no clear vaccination plan was provided. Unfortunately requests were too often incomplete and additional information had to be requested from the applying countries, creating some delays in the decision for vaccine allocation . On average it took 3.1 days to obtain this additional explanatory information, e.g. the numbers did not match in the different tables, nor was it clear how many vaccines were left from previous campaigns and thus still available for use. Some requests for Angola were released in phases, as the ICG decided to wait and ensure appropriate use of the initial doses before releasing a second and/or third shipment.

Partial approval was provided based on the justification provided by the countries:

- Angola (#6): 1,035,800 vaccine doses were granted in two phases following reception of detailed vaccination reports on all activities, comprehensive assessment on the impact of the used strategy and continuing transmission, as well as the status of vaccine stocks within the country.

- DRC (#7): 1,083,005 YF vaccine doses were granted for areas reporting autochthonous cases, as well as taking into consideration the recent SAGE recommendations for the use of fractional doses in pre-emptive vaccination campaigns to be conducted in Kinshasa and in areas bordering Angola.

	Reception to Circulation	Additional info submitted	Decision	Decision to Reception
Average	0.2	3.1	1.1	8.8

**Table 2:** ICG performance indicators AVERAGE (days)

Requests often arrive on Fridays, usually as a result of the process of reporting on a weekly basis, the compilation of the data and transferring from local to regional to national level. The lead time for vaccines to arrive once the vaccine request was approved was in 2016 for YF an average of 8.8 days, within the advocated time line of 10 days. The shipment time was relatively long; this will be indicted separately in the table with performance indicators, as well as the starting date of the vaccination campaign and reasons for delays.

### 1.3 Update on YF emergency stockpile balance and Revolving Fund

During the first half of 2016 more than 30M vaccines were shipped . For the first 6M doses, funds from the 2015 stockpile were used, as in 2015 the stockpile had not been accessed (request 1 and 2). Initially the Global Alliance (Gavi) refused to release these funds for Angola as it is a non-eligible GAVI country, however after discussions both GAVI and Angola agreed to pay each 50% of costs of the vaccines and transportation. For the release of an additional 6M doses for Angola, the funds from the 2016 stockpile were used to procure the vaccines. To quickly cover the vaccine procurement for DRC, the revolving fund (RF) was used as the 2016 funds were depleted. Reimbursement into the revolving fund (RF) will be requested from Gavi as DRC is an eligible Gavi country.

The requested demand for stockpile needs to be realistic considering production capacity per week/month and also be in line with a country's capacity to respond; there is no need to accumulate 20M doses in the emergency stockpile as no country would vaccinate 20 million people in one week. The stockpile should serve as the first line response while more time is

预览已结束，完整报告链接和二维码如下：

[https://www.yunbaogao.cn/report/index/report?reportId=5\\_26416](https://www.yunbaogao.cn/report/index/report?reportId=5_26416)

