International Coordinating Group on Vaccine Provision for Cholera Control

Annual meeting

12 - 13 July 2016

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Contents

Abbreviations

CERF	Central Emergency Response Funds
DRC	Democratic Republic of Congo
EPI	Expanded Programme on Immunization
Gavi	The Global vaccine alliance
OCV	Oral Cholera Vaccine
ICG	International Coordinating Group on Vaccine Provision for Epidemic Cholera Control
IFRC	International Federation of Red Cross and Red Crescent
M	Million
MOH	Ministry of Health
MSF	Medecins sans Frontiers
PQ	Prequalified
PQT	WHO's Prequalification team
SAGE	Scientific Advisory Group of Experts for immunization
SD	(UNICEF) Supply Division
RF	Revolving Fund
UNICEF	United Nation Children's Emergency Fund
WASH	Water, Sanitation, and Hygiene
WCO	WHO Country Office
WHO	World Health Organization

Executive summary

On 12 and 13 July, the International Coordinating Group (ICG) for cholera vaccine provision (OCV) held its annual meeting to review the epidemic season, vaccine procurement and supply and define the vaccine needs for 2017 stockpile. The executive members of the ICG are the following organizations: International Federation of Red Cross and Red Crescent (IFRC), Medecins sans Frontiers (MSF), United Nation Children's Emergency Fund (UNICEF) and the World Health Organization (WHO). Discussion focused on the OCV ICG mechanism, including ICG process indicators, vaccine supply projections, role of the ICG for OCV in the coming years, reimbursement from Global Vaccine Alliance (Gavi) non-eligible countries. On the second day the focus of the discussion was on the vaccine demand and projected supply from the OCV vaccine manufacturers.

The stockpile consists of 2 million doses for the 2016 epidemic season. In 2015, a total of 3,142,671 Oral Cholera Vaccines (OCV) were requested, of which 1,654,345 doses were released to respond to six requests for vaccines. In 2016, a total of 1,065,693 OCV were requested, of which 1,065,785 doses were released to respond to six requests for vaccines. The average time between the ICG approving the request up to the vaccine arriving in the country was 14.4 days, which is longer than the seven days the ICG strives for. On average the vaccination started 9.5 days after reception of the vaccine within the country.

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

1. Delays in shipping and arrival of the vaccines after the ICG approval of the request (section 2)
2. Delay in the starting the vaccination campaign after arrival of the vaccine (Section 2)
3. Forecasting for outbreaks remains complicated (Section 3)
4. Reimbursement from Gavi non-eligible countries in to the Revolving Fund (Section 6)
5. Under reporting of cholera cases (Section 8)
6. Indicators used for review by Gavi are routine immunization focussed and not on outbreak response (Section 8)

The meeting concluded that there is good news in terms of supply: in the near future there will be a substantial increase of vaccine production capacity, however a stockpile will always remain necessary. A better understanding on the time line with manufacturers exists as well as a better supply forecast. In the next year a discussion on the future role of the ICG will be needed; once there is no shortage there might no longer be a need for the ICG. A discussion on the revolving fund is needed and the mechanism for reimbursement by Gavi non-eligible countries. The Zambia example where response with a one-dose reactive campaign was received as important for facilitating response and rapidly controlling an outbreak.

The ICG Members reached consensus that the forecast for 2017 will be two Million doses of OCV at a continuous level.

1 Epidemiological update

Preliminary figures from 2015 show a total of 163,000 cases reported. From all countries reporting cholera cases, the majority of cases were detected in Afghanistan and Haiti. There is no significant decline in the number of reported cholera cases; still a high number of cases were reported also in Mozambique, Somalia and Democratic Republic of Congo (DRC) as well as long, country wide outbreaks occurred in Tanzania and Kenya. In Haiti the 40,000 cases reported are considered an underestimation of the real number of cases, as most areas are quite remote and are either underreporting or not reporting at all. The under-reporting was also considered significant in South Asian countries where Bangladesh reported zero cases and India reported 889 cases and 4 deaths.

Country (year)	**Cases**	**Deaths**
DRC (2015)	19,125	271
DRC (2016)	10,229	216
Haiti	43,487	494
Iraq (suspected cases)	4,016	?
India	889	4
Kenya (2014 – 2016)	15,242	239
Somalia (2016)	9139	441
Tanzania (2015 – 2016)	21,696	341
Zambia (2016)	948	9

Table 1: overview of reported cholera cases

Annex I provides a graphic overview of the worldwide distribution of Cholera in 2015, by Country.

Vaccination campaigns were conducted in Iraq, Malawi, South Sudan, Zambia and Haiti. In the latter, Water, Sanitation, and Hygiene (WASH) interventions have been implemented.

Often it is easier to mobilize OCV for outbreak response or humanitarian crisis than it is for control of endemic cholera. In humanitarian crisis situations, it is well known that through preventive vaccination campaigns, outbreaks can be controlled. However, in endemic situations, showing the benefits of vaccination to prevent deaths is challenging since WASH activities are implemented at the same time.

Country experience - Iraq

In Iraq, using OCV was originally not part of the cholera preparedness and response plan. For both the Ministry of Health (MOH) and the WHO Country Office (WCO) time was needed before they accepted to implement OCV campaigns. Delays were encountered in the vaccine

arrival as the Iraqi National Regulatory Authority (NRA) was, from the start, not included in the discussions with the MOH and the vaccine was not licensed in the country.

Lessons learned from the campaign in Iraq include: 1) the department of Expanded Programme on Immunization (EPI) played a critical role in the implementation of the OCV campaign activities including social mobilization, cold-chain management and transportation; 2) the intensive social mobilization activities created high demand; 3) the availability of operational funds contributed to the timely implementation and higher coverage; and 4) OCV has become one of the cholera preparedness and response interventions.

Country experience - Zambia

Under the leadership of the MOH, a clear sharing of the responsibilities was defined; MSF focused on vaccination and the Monitoring & Evaluation. The MOH focussed on the standard response including surveillance, case management, WASH, and sensitisation. As a good collaboration existed between the partners, the arrival of the vaccine was well prepared and vaccination started the day after arrival of the vaccine. To ensure coverage of the adult male population, the areas where they usually gather were targeted. As not enough vaccines were available, a one dose OCV strategy was implemented providing a high protection for a short term.

MSF is currently trying to gather evidence that one dose is sufficient to stop an outbreak. This is part of their efforts to be more efficient in responding to outbreaks/emergencies. The study first started in 2015 in Juba and is extended to other areas, including to Zambia for this outbreak.. The preliminary findings showed significant effectiveness of 1 dose regimen, close to the two dose regimen, which could possibly provide a significant change in future cholera outbreak response.

2 ICG response and Performance

The number of doses indicated below for 2015 and 2016 include only vaccines shipped for humanitarian and outbreak response.

A total of 3,142,671 OCV were requested from **June to October 2015** of which 1,654,345 doses were shipped, as can be seen in table 2 below.

Country	Date	Vaccines requested	Approval (total/partial/ refused	Quantity shipped
# 6 Nepal	2 June	459,132	Not approved	0
#7 Tanzania	23 June	164,582	Approved	254,590
# 8 South Sudan	3 July	104,430	Not approved	0
#9 South Sudan	7 July	639,466	Partially approved	270,340
#10 South Sudan	22 July	66,755	Approved	66,780

Country	Date	Vaccines requested	Approval (total/partial/ refused	Quantity shipped
#11 Cameroon	23 July	116,344	Approved	116,375
#12 Iraq	4 October	510,000	Approved	510,020
Total		**3,142,671**		**1,654,345**

Table 2 – Vaccines requested and shipped for reporting period 2015

A total of 1,065,693 OCV were requested from **January to March 2016** of which 1,065,785 doses were shipped, as can be seen in table 3 below.

Country	Date	Vaccines requested	Approval (total/partial/ refused	Quantity shipped
#1 Niger	12 Jan	195,132	Approved	195,160
#2 Malawi	23 Jan	160,000	Approved	160,020
#3 Malawi	24 Feb	40,000	Approved	40,005
#4 Zambia	24 March	598,131	Approved	598,150
#5 South Sudan	22 March	72,430	Approved	72,450
Total		**1,065,693**		**1,065,785***

* difference is due to packaging

Table 3 - Vaccines requested and shipped for reporting period 2016

The main reasons for refusal of requested vaccines include:

- South Sudan # 8 : The Monitoring and Evaluation was not clearly defined
- Nepal # 6 - revised request: There was no evidence of increased risk for cholera post-earthquake, nor was there evidence of strong partner's involvement. The request for a loan was not approved either as there was a shortage of vaccine.

The average time between the ICG approving the request up to the vaccine arriving in the country was 14.4 days, which is longer than the seven days the ICG strives for (see Annex II). These delays have implications at country level for the launching of the vaccination campaign. The average time between the vaccine arriving in the country to the start of the vaccination campaign was 9.5 days, with 18 days for Niger and 15 days for South Sudan.

The time lapse between the ICG decision to reception of vaccines is extremely long and variable. Even though the countries always receive the pre-alert documentation several days in advance of the shipment, they often only start preparing for the campaign once the vaccines arrive in the country leading to additional delays.

Reasons for delays in shipment include:

- Delay in release from the manufacturer (up to 4 days)

- Lack of license, authorization for use or/and importation
- Request for notification from both UNICEF and WHO that vaccines are humanitarian supplies before export licence was granted
- Shipment to South Sudan by ship and road takes time (transit via Nairobi)

The meeting participants asked to differentiate between the presentations and the analysis of on one side outbreak responses (for which the response should be implemented as soon as possible to have an impact) and on the other side the allocation of vaccines for preventive activities in humanitarian settings for which we have a bit of more time for implementation.

3 Oral cholera vaccine supply projections

At present a total of 3,639,211 doses of OCV are available with two manufacturers, as shown in table4. A discussion to reduce the price is ongoing.

Vaccine	Emergency stockpile	Non-emergency *	Total doses
Shanchol	1,858,915	446,395	2,305,310
Euvichol		1,333,901	1,333,901
Total	1,858,915	1,780,296	3,639,211

*unpacked

Table 4: OCV - currently available July 2016

Eubiologics vaccines, clarified that the 1.3M doses were produced (2015) including the component (thimerosal[1]) and this vaccine batch(es) was licensed and Prequalified (PQ) with this component and can be procured. Recently production has moved to 600L fermenter and thimerosal has been removed from the product. The Korean NRA licensed the new product which supersedes the "old" product. However, as the 2015 vaccines are still with a valid license, they can, therefore, still be used for the ICG stockpile. The manufacturer will issue a written communication to UNICEF SD so that these vaccines produced in 100L fermenter can be purchased.

Other producers exist for future production:

1. SBL Vaccin Sweden - WC Dukoral vaccine which is PQ, however they are not interested in outbreak response
2. Va-Biotech Vietnam - mORC-Vax– the NRA is functional, the vaccine is non PQ and no request or dossier submission has taken place

[1] also known as thiomersal

3. Incepta Bangladesh -Cholvax– the NRA is not functional and the vaccine will be available for the local market, they are interested in obtaining PQ for access to the global market
4. PaxVax-USA, Vaxchora – the CDC Advisory committee on Immunisation recommended vaccination with Vaxchora against cholera on 23 June 2016: "for all persons in an age- or risk-factor-based group" and "all adults 18 through 64 years"
5. Cuba: Finlay strain + National Centre LA – Vib chol 638 strain vaccine
6. KWC University of Gothenborg and Hillman labs - Second generation vaccine - a new oral mucosal adjuvant – potentiate intestinal mucosal response – providing longer term protection

4 Projections procurement

4.1 Stockpile-supply update UNICEF

At present, contractual-wise, UNICEF SD is quite flexible; contracts are set up and sufficient funds are available from Gavi. However, for emergency procurement UNICEF SD relies only on Shantha and for non-emergency response vaccine procurement mostly on Eubiologics. Therefore the stockpiles are not exchangeable; the ICG requested UNICEF SD to change the contracts with the manufacturers for 2017 in order to have more flexibility.

A list of countries exists where complications for delivery can be expected: Cuba, Iran, North Korea, Syria, North and South Sudan. A clause in the contract is needed and/or the country of origin requests certificates prior to shipping vaccines to these countries indicating the humanitarian nature of the supplies.

This was the case also where UNICEF SD had to meet Shantha's internal requirements, driven by the Government of India, and delays were encountered. A standard paragraph has now been inserted in the contracts, approved by UNICEF's legal office, indicating that UNICEF is not showing support to any political situation. This forms part of UNICEF SD's commitment to negotiate accelerated release from manufacturers.

4.2 Vaccine investment strategy – Gavi

The preparations for the Vaccine Investment Strategy Process number three starts in 2017. This will be set in two phases:

1. Analysis of WHO landscape vaccines for initial prioritization
2. In-depth analysis of shortlisted vaccines and development of recommendations

The key cholera vaccine challenges include the recurring campaigns that could be a programmatic burden as they are costly and supply constraints may hinder implementation. The

Gavi comprehensive review of the stockpile is planned as part of the vaccine investment strategy. As part of the process, the ICG is invited to review the strategy and provide input on the indicators that are important for Gavi to include.

5 Future role ICG OCV in the context of improved vaccine supply

The global vaccine supply situation will increase over the next years and a capacity of 7M doses can be expected in 2018 from Shantha and up to 25M doses from EuBiologics. Once there is no longer a shortage of OCV the ICG mechanism might no longer be needed. The manufacturers could then, in theory, manage the demand. At present it is too early to decide if the ICG is no longer needed as the ICG Members do not have confidence that vaccines can be shipped within ten days. The risk remains that even if the production capacity increases and there is no demand, the manufacturers might not produce at risk.

The need for a stockpile for emergencies will remain and as such will need to be managed: the levels of the stockpile will need to be defined, discussions with Gavi continued and the funding sources identified. However, this could be another type of stockpile and mechanism and not managed by the ICG. If funds are no longer available from Gavi, the revolving fund can be used to respond to emergencies as the likelihood is high that there will be a shortage of funds and not of vaccines. . The discussion also focused on the role & responsibility of the ICG in managing the revolving fund.

6 Reimbursement

The OCV stockpile is funded until 2018. The ICG stockpile is for both eligible and Gavi non-eligible countries. Recent the campaign costs for outbreaks and humanitarian crises have been covered also by other donors (Cargill, ECHO). For future deployments, Gavi will cover the operational costs for their eligible countries. Donors will still need to be identified for non-Gavi eligible countries, especially during emergency situations.

The Gavi non-eligible will be requested to reimburse the vaccines. Gavi will need to find a mechanism for reimbursement, via UNICEF SD or Gavi.

<u>Case study: Iraq</u>

In October 2015, during a vaccination campaign in Iraq, 250,000 IDPs were vaccinated with OCV. Funds were requested and obtained through the Central Emergency Response Fund (CERF) and given to WHO. The vaccines and the transport costs were therefore funded through CERF and thereafter transferred to Gavi. This was quite an elaborate and complicated process and WHO has no interest in being part of these funds transfer.

A decision is needed where these funds should be sent to: 1) either directly to UNICEF SD for future vaccine procurement; 2) or directly back to Gavi; 3) or to WHO in case WHO procures the vaccine for outbreak.

If the funds would be transferred to UNICEF SD, a MOU will be required for this mechanism as well as a communication from Gavi indicating that these reimbursed funds can be used to procure vaccines for future outbreaks.

7 Discussion

Reporting of cholera

Reporting the cholera cases for countries has always been sensitive due to political and economic reasons. Countries should report cholera cases through their International Health Regulations focal point, however this remains difficult to enforce. Countries tend not to report as this would negatively influence tourism to their countries and indicating that they do not invest sufficiently in water and sanitation. Vaccination against cholera is currently not part of countries' preventive, preparedness and response plans. Endemic countries can apply for preventive campaigns in hotspots, however vaccination should be part of a larger integrated strategy including implementing WASH activities.

Vaccine arrival

One of key problems with using vaccine in cholera outbreak is the timely arrival of vaccines in requesting countries. If vaccines arrives after the peak of the epidemic curve, it is too late to obtain an impact. Delays in confirmation and decision to prepare a request at country level between the first cases and the ICG request for vaccines, followed by a two-week period before arrival of the vaccines, results in vaccines not arriving in a timely manner at country level. These delays also question whether a strategy of using vaccines for outbreak response has an impact on the epidemic curve. An additional delay is that most countries wait for the vaccines to arrive before they start organizing the vaccination campaigns. Countries should start planning the campaign right after submitting a request. The pre-advice, sent to countries as soon as the freight forwarder has booked an airline, contains important information on the exact time and day of the vaccine's arrival in the country.

A strategy is needed to shorten the delay of vaccines arriving and being used in campaigns, including targeting the MOH and the NRAs as well as other ministries/organizations involved..

Delay in starting vaccination campaign

The time between the reception of the vaccines at country level to vaccination of the target population takes too long and this needs to improve. Countries argue that this delay is partially linked to uncertainty of the reception date (not known until the reception of the pre-advice) and

the country waiting until the vaccines arrive before starting to plan for the vaccination campaign. A better communication is needed from UNICEF SD to the country. The freight forwarder is contacted when the Purchase Order is received, so that they can communicate to the countries that e.g. in 4 days the shipment is at the airport ready for pickup. At present, while waiting for the vaccine to arrive, the staff implementing WASH activities, should start both macro and micro-planning for the vaccination campaigns rather than waiting until the vaccine is actually "on their doorstep".

OCV being a new vaccine

One of challenges is that OCV is a relatively new vaccine from two different manufacturers only (Shanchol and Euvichol). They have been licensed and prequalified in 2011 and 2015 respectively. Some of the MOH's have little knowledge of the vaccine. WHO and partners will need to focus with partners to educate at country level on the vaccine and its advantages. This is also an important aspect of the campaigns.

NRA approval and acceptance can be delayed when an outbreak occurs and the partners need to work with these NRAs to improve this to facilitate and speed up arrival.

Vaccine stock outside manufacturers

If shipping from India cannot be shortened, the suggestion was made to have vaccines stocked outside the manufacturers site. However, due to the complexity and increased costs, a separate discussion will be required. Rotation of vaccine stock is important and a "fresh" stock of vaccine is constantly needed. For OCV, in principal, a regional stock would not be useful as all vaccines are used. If not for outbreak response, they would be used in endemic settings.

ICG Request form

Feedback from users in the field indicated that the ICG request form is perceived as difficult to fill out and technical support is required for countries. Simplifying the form is strongly recommended.

Start of vaccination campaign

The decision to implement a vaccination campaign and subsequently requesting vaccines from the ICG is difficult to make when in the first weeks of an outbreak only a few cases are detected (spread out and not concentrated in one area). Partners and countries need to be convinced to plan for the vaccination campaign early and not wait to request vaccines.

Male/adult vaccination

The coverage of males (a population not used to be included in vaccination campaigns) is low; this was also seen in other countries. Social mobilizers are crucial to inform the men that they

should receive vaccination as well and not only the women and children. Such messages need to be included in future campaigns.

Outbreak response

WHO and partners need to increase the capacity to respond to outbreaks. Administering a single dose will facilitate the decision and the campaign logistics, as well as assist in convincing partners to use vaccines. The health care system is already stretched and organizing two rounds takes quite some resources. The additional advantage is that the target population will be doubled. The use of single dose for outbreak response will be discussed by the SAGE in April 2017.

Forecasting

The ICG Members agreed by consensus that a stockpile of 2 million doses for outbreak and humanitarian emergency response should be sufficient, together with 3-4 M doses for non-emergency campaigns. If needed, vaccines from the stock for preventive campaigns can be used for an urgent outbreak, and replenishment will be in to the reserve of preventive campaigns.

SAGE will review if for outbreak response a one-dose regimen would be acceptable. The current data for outbreak response is not sufficient, both in terms of delay and impact. Hence, for now during outbreak response two doses remain required.

Indicators used by Gavi

The indicators that Gavi uses for investment prioritization have been discussed and as such their analysis conducted is erroneous. Mostly their criteria is based on the number of cases and deaths to invest in vaccines for routine vaccination, however these are not sufficient for diseases with potential risk of causing epidemics. Economic costs is a good indicator, however measuring this against deaths averted during a public health emergency is not appropriate. Important in such an analysis should be the public health impact, i.e. the potential of disruption on the public health system from a large-scale outbreak, including the breaking down/overburdening of the health services and e.g. reduced access to maternal health services or interruption of EPI programs. As such Gavi makes the same misinterpretation as was the case with Yellow Fever (YF) vaccine; Gavi was planning to stop YF financial support after the investment case, which had an important impact on the manufacturers' decision to invest in this vaccine. After the 2016 Angola urban epidemic, Gavi requested WHO to present a new YF strategy to support other endemic countries in Africa and Latin America.

Operational costs:

The operational costs approved by the Gavi board is up to 65 cents per dose. Only Gavi eligible countries have access to these OC, non-Gavi countries should find their own financial mechanisms. It was discussed that such a policy may delay the vaccination campaigns. In these situations the Revolving Fund could be used. For vaccine support, depending on the income of the country, based on the Gavi transition model, the need for reimbursement will be decided.

For countries in transition phase 2 with low income, 45 cents/person will be provided. Countries in phase 1 will receive 65 cents/person. The ICG global stockpile is for all countries and currently the Gavi non-eligible need to reimburse the cost of vaccines. The mechanism of reimbursement has not yet established.

Revolving fund

The example of Angola which is a non-Gavi eligible country, clearly showed the importance of the ICG Revolving Fund (RF). The ICG was able to immediately procure the vaccine using the RF, however these funds are not to cover the OC. Therefore, some Gavi non-eligible countries may also face difficulties in having emergency funds for OC. Gavi is revising their state policy for countries in transition. Gavi disagrees with the use of the RF, however at present no other alternative to rapid access to emergency funds exists and the RF showed to be very useful in many occasions. If the RF would not exist, all funds would be reimbursed to Gavi and non-eligible countries would no longer have access to the current stockpile

The OCV Supply is increasing and the need for an ICG may cease, even if the need of having a OCV stockpile will persist to respond to emergencies. Ideally, a Gavi non-eligible country could procure directly from the manufacturer if there is no shortage of supplies. However, given the shortage of vaccine and that the ICG stockpile is available to all countries, regardless the Gavi eligibility, it is therefore completely justifiable to have a mechanism (funded and accountable) for emergency settings, that can be used to cover the costs of the vaccine already financed. If UNICEF SD procures vaccines for the Gavi non-eligible countries using Gavi funds and these funds will be reimbursed to Gavi, then a mechanism is needed for vaccines supply to Gavi non-eligible countries facing an emergency situation. The Secretariat contacted different donors to cover vaccination campaigns during outbreak response that need to be reimbursed.

8 Action points

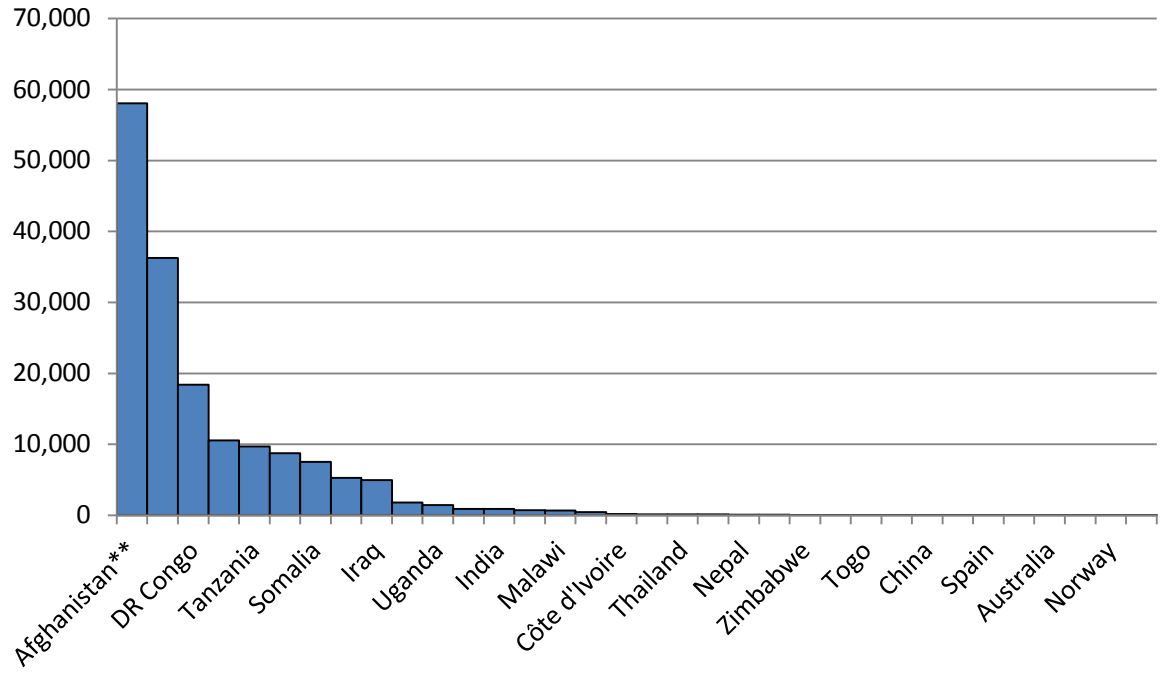
	Action point	**By whom**
Performance		
1	Streamline the process from shipment to destination Review all steps in the different business cases and report solutions for improvement to the ICG, and potentially try to have all the paperwork and approvals ready in advance. Negotiate contract flexibility between emergency and non-emergency stockpiles	UNICEF SD

2	Identify the requirements needed regarding paperwork for countries under international embargo in order to prepare in advance where feasible	UNICEF SD
3	Discuss the option of an intermediate storage closer to the countries where the vaccines are needed	ICG Secretariat and UNICEF SD
3	Inform the country when request is approved that the vaccines will arrive in maximum 7 days so that the country can start preparations for the campaign.	ICG Secretariat
4	Review the process of the implementation of the campaign	WHO, Disease Focal Points
<u>Discussions with manufacturers</u>		
5	Review delivery time with manufacturers, discuss with Shantha how to improve time for release	UNICEF SD
6	Prepare a communication for UNICEF SD that the 2015 vaccines produced in 100L fermenter has an export license and therefore can be used by the ICG	EUbiologics
7	Organize a meeting with EUbiologics, SD and PQ team to ensure that the ICG has access to the vaccine produced in 600L fermenter (as the fermentation is the same as the vaccines produced in 100L)	WHO, EVS
<u>Vaccine acceptance</u>		
8	Request the Cholera Global Taskforce to work with governments to prepare countries for OCV acceptance including NRAs	WHO
9	Add the importance of using OCV to the discussions at the EPI regional meetings so that OCV becomes part of national cholera response plans and not only as part of humanitarian response and outbreaks	WHO, Disease Focal Points
10	Develop advocacy material that the EPI managers can disseminate to different higher levels: health managers and policy makers	WHO Disease Focal Points
<u>Revolving fund</u>		

11	Find a solution for reimbursement of funds from Gavi non-eligible countries.	WHO and Gavi
12	Set up a mechanism between Gavi and UNICEF SD for the replenishment of funds	ICG Secretariat, Gavi and UNICEF SD
<u>ICG request form</u>		
13	Send feedback on the OCV request form	MSF (presenter)
<u>Review Gavi policy</u>		
14	Prepare a common position of the ICG in the review the Gavi strategic policy including the clear definition of roles	ICG
15	Prepare a position paper to advocate with Gavi and other donors for the need of an independent allocation mechanism of vaccines in short supply such as Men, YF, OCV for all countries	ICG
16	Advocate to Gavi to provide funds for a global stockpile (both eligible and non-eligible countries). In the absence of approval, allow other donors to contribute to supporting the non-eligible countries	WHO; ICG and ICG Secretariat
17	Develop and review the indicators and criteria for the review to be conducted by the Gavi policy team as the existing standard criteria for routine vaccination are not sufficient	WHO

Annexes

Annex I Worldwide Distribution of Cholera in 2015, by Country



**AWD in Afghanistan

The figures in the graph are based on to date (12 July 2016) available data.

Annex II Time-line overview of arrival of vaccines in requesting country

Countries	Reception to Circulation (working days)	Additional info submitted	Decision (working days)	Decision to Reception	Vaccination starts (after reception)	Number of doses released
#1 Niger	same day	NA	2 days	12 days	18 days	195,160
#2 Malawi	1 day	NA	1 day	15 days	7 days	160,020
#3 Malawi	same day	NA	same day	16 days	1 day	40,005
#4 Zambia	same day	NA	2 days	10 days	1 day	598,150
#5 South Sudan	same day	10 days	same day	24 days	15 days	72,450
#7 Tanzania	same day	2 days	1 day	11 days	13 days	254,590
#9 South Sudan	same day	2 days	1 day	13 days	8 days	270,340
#10 South Sudan	same day	same day	1 day	14 days	12 days	66,780
#11 Cameroon	1 day	4 days	same day	11 days	10 days	116,375
#12 Iraq	2 days	2 days	1 day	14 days	10 days	510,020

Annex III List of participants

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* Unable to participate

Annex IV Agenda

DAY 1

Closed session (Only ICG core members)

Time	Topic	Presenter
9:00 – 9:50	Introduction and welcome of participants Selection of chair	William Perea / Alejandro Costa
	Cholera Epidemiology update	Dominique Legros
10:30 – 10:45	**Coffee break**	
	ICG process indicators Stockpile update 2016/2017	Alexandra Hill Guillermo Gimeno
	Vaccine supply projections: EU-biologics, Incepta, Finlay, VaBiotech, Shantha	Alejandro Costa Steve Martin
13:00 – 14:00	**Lunch**	
	Role of the ICG for the coming years in the context of improved vaccine supply	Alejandro Costa
15:30 – 16:00	**Coffee break**	
	Reimbursement to Gavi from non-Gavi countries	Steve Martin
17:00 – 18:30	**Reception**	All (including extended partners)

DAY 2

Open session (extended Partners)

Time	Topic	Presenter
9:00 – 9:45	Introduction of participants	All
	Cholera Epidemiology update	Dominique Legros
	Experience with the use of OCV • Iraq • Zambia	Abdinasir ABUBAKAR, Marc PONCIN (MSF)
	Gavi next VIS Operational costs Reimbursement process for non-Gavi eligible countries	Melissa Ko (Gavi)
10:30 – 10:45	**Coffee break**	
	ICG procurement and reimbursement (ICG-UNICEF SD MOU, operational costs) Revolving Fund	Stephen Martin
	Procurement	UNICEF Supply Division
	Productions and vaccine development plans	Sanofi/Shantha/Crucell/ PaxVax /EU Biologics/ Va-Biotech/Finlay
13:00	Wrap up	Alejandro Costa