

## Ethiopia Joint Appraisal 2014

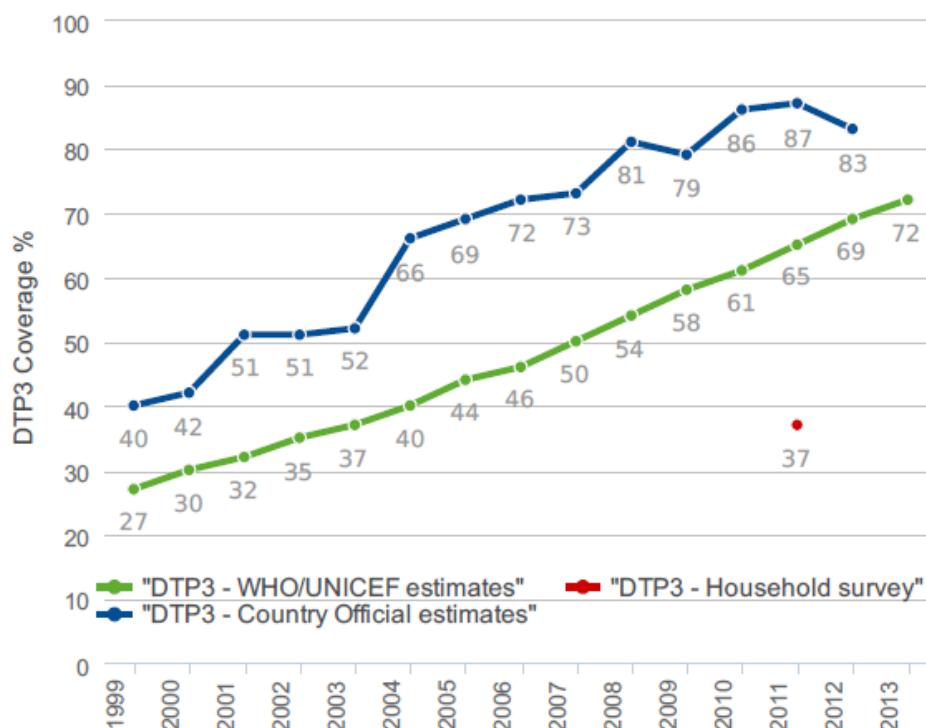
The Appraisal mission was conducted in Ethiopia from 18 to 22<sup>nd</sup> August 2014, by a team composed of representatives from: WHO CO, UNICEF PD, UNICEF ESARO, UNICEF CO, and GAVI Secretariat. AFRO could not participate due to the high level of staff mobilization for the response to the West Africa Ebola crisis. The Appraisal report was prepared by the members of the team. The EPI team of the FMOH organized the agenda, meetings and field visits, and provided the required details.

The team presented its findings and recommendations to the ICC during a debriefing meeting chaired by the State Minister, Operations on 22<sup>nd</sup> August. The ICC endorsed the report.

### 1. Achievements and Constraints

Ethiopia, with a population of over 88 million, is divided into 11 regional states, 103 zones and more than 800 Woredas administratively (The number of woredas vary every year as they keep emerging every year. The latest is 885 as per the woreda plan for EFY 2007). The national routine immunization program in this country is expected to fully vaccinate and protect against vaccine-preventable diseases a birth cohort of nearly 3 million children.

Evolution of coverage as per administrative data and WUENIC



Since 2011 the performance of the programme has improved, based on WHO-UNICEF estimates of DTP3 coverage showing an increase from 65% in 2011, to 72% in 2013. However the country is reporting declining DTP3 (from 83% to 82%) and Measles (from 80% to 76%) coverage according to its own administrative data, which may indicate improved data quality with less discrepancy with coverage survey data.



The **PCV vaccine** was introduced in 2011 and is reaching PCV3 63% in 2013 (WHO-UNICEF estimate). The gap between penta and PCV has been explained as registers not being updated and capturing PCV immunisations. These problems have now been rectified. Ethiopia conducted a PIE for PCV10 at the national level as well as in seven regions, from 25 March – 5 April 2013. The PIE found that in general the introduction of the PCV10 vaccine in Ethiopia went smoothly and the vaccine was well accepted in the country. Strengths identified included: extensive training nationwide, updating key recording and reporting tools; well established system for integrated supervision; development of a National Health Care Waste Management Strategy and Implementation Plan at the central level; regions using the opportunity of the introduction of PCV to repair, maintain, and redistribute their cold chain equipment; distributing appropriate IEC materials; establishment of a national AEFI committee; establishment of PBM sentinel surveillance at three major hospitals.

The key issues include: delayed introduction of the vaccine in some regions; inadequate training at subnational levels; data quality problems; waste management problems at some health facilities; constrained cold chain capacity; kerosene shortages in some health facilities; inadequate availability of IEC materials at some health facilities; suboptimal AEFI monitoring and surveillance; data quality problems at sentinel sites; and insufficient financial information on immunisation programme financing .

The **rotavirus vaccine** program was launched in Nov 2013, and so has been implemented for less than 12 months, hence there was no coverage reported in the APR. The introduction in Somali region has been delayed due to the concurrent outbreak of polio in the region, related to an outbreak in neighbouring Somalia, and is planned for September 2014.

**Measles SIAs** were conducted in 2010 with support from the Measles-Rubella Initiative and in 2013 with support from the GAVI Alliance. While the country requested for under 15 year old campaign due to increasing proportion of cases in children above 5 years of age, due to resource constraints and in the absence of SAGE recommendation on selecting a target age group and as GAVI's aim in providing support was to reduce deaths which were seen to be higher at those under 5 years of age, support was provided for children under 5 years of age (9-47 months in 2010 and 9-59 months of age in 2013). The campaign was implemented nationally from 29 May up to 3 June 2013 and in Somali region from 19-25 June. While a campaign should achieve at least 95% coverage, the post-SIA coverage survey indicates a national coverage of 90.6% with 95% confidence interval of 89.8% to 91.5%. Regional coverage estimates ranges from the highest in Beneshangul-Gumuz with 96.1% to the lowest coverage in Hareri Regional state with 78.0% coverage. Only Beneshangul-Gumuz achieved the goal of 95% coverage and Tigray region nearly achieved the goal, 94.7% coverage (95%CI: 92.5%, 96.2%). Regions with larger populations targeted for the campaign, Oromia and SNNPR each achieved coverage of about 92%. However, the coverage estimate for Amhara the second most populous region is less than the national SIA coverage (86.8 %)¹.

Ethiopia has conducted a vaccination campaign against **Meningitis A** from October 17 to 26, 2013. Initially the campaign was planned from 8 to 17 October but was postponed due to the polio campaign introduced urgently subsequently to the outbreak in Somali region.

This campaign was the first of three rounds planned to cover the whole country. A second round is scheduled for 2014 and a last one for 2015. About nineteen millions (18,926,853) population located in 30 zones were targeted and 20,819,538 doses of vaccine were delivered. No Independent Monitoring was carried out due to a delay in disbursement of funds, and only a brief technical report has been made available. A post SIA coverage survey was done, which showed that coverage per region varies from 95.8% (Tigray) to 104.4% (Oromia). A minimum coverage of

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¹ Of the 96 zones in the country, only 53 zones "passed", ranging from zero in BG to 2 of 10 in Addis Ababa, 8 of 13 in Amhara, and 4 of 6 in Somali and 2 of 2 in Hareri Region.



73% and a maximum of 108% were observed in zones. 469 AEFI cases were reported during the campaign, of which 138 were considered as being serious, 207 mild and 124 cases not specified.

## 2. Coordination and Governance

There are several levels of committees: ICC, technical ICC, working groups (logistics, M&E, communication), task force, as well as EPI quarterly meetings involving partners and Regional Health Bureaus (RHB). Except for these last ones, minutes are not systematically signed and attendance not systematically registered. Coordination seems sub-optimal with more bilateral meetings than forums.

An attempt at clarifying the respective roles and responsibility of the various committees was discussed in December 2013, and subsequently TOR developed with indication of required participation in the different committees have been clarified.

No NITAG has been established yet, but TORs are currently being drafted, with a view to establishing a NITAG in the coming year, drawing from expert groups that are already providing policy guidance to the Ministry.

## 3. Programme Management

A substantial progress was made with the establishment of EPI in 2013 as a program under the Mother and Child Health Directorate (MCHD), and the development of a strong team. The high staff turn-over/attrition is however a problem, with key team members having left between June and August 2014. It is noted that high turnover is a government-wide issue, with the relatively high private sector salaries contributing to employee turnover at all levels.

Despite the key role regions play in health, no region has a full-time EPI coordinator. Regional immunization programmes are managed by focal points (MNCH coordinators) who do not focus solely on immunization.

Following the release of the 2012 coverage cluster survey, which showed a lower than expected performance and wide regional disparities, a national Routine Immunization Improvement Plan (RIIP) was prepared on the basis of regional situation analysis. The RIIP is costed, although not entirely funded (GAVI HSS is disbursed through a pool funding mechanism, non-earmarked), and has an M&E framework. The goal of the RIIP is to reduce the number of unimmunized children by 50% by 2007 EFY (2014/15); and targets are (1) attain national DPT-3 coverage of 90% and 95% by EFY 2006 and 2007 and (2) achieve at least 80% coverage in 90% of the districts in each region. The strategies focus on:

- 1) Use a combination of approaches to reach everyone targeted for immunization taking the geographical and socio economic situations of regions
- 2) Increase community demand for immunization
- 3) Improve and strengthen vaccine-management systems in the country
- 4) Evaluate and strengthen national immunization programs

The government in collaboration with partners emphasized particular support to regions and zones with large number of unvaccinated children (35, now expanded to 51), with special dedicated experts assigned to these areas. WHO and UNICEF are supporting specifically 35 zones while CDC/START project and L-10 K support additional 10 and 7 zones respectively. Technical assistance to the selected priority zones has involved extensive engagement from the Minister as well as technical support and training for the experts.



At woreda level implementation is based on RED approach. Communication and social mobilization is particularly supported by PATH. Additional support is provided by UNICEF for advocacy, in line with the RIIP, amongst key leaders.

Implementation of the RIIP is underway and progress is being monitored by the task force and technical ICC. The mission was provided with an update, but there is no regular progress report on actual implementation as per the M&E framework.

Supportive supervision is organized at national level (1 or 2/year), regional and zonal level (quarterly) and woreda level (monthly). Main challenges are the lack of use of checklists, lack of follow up from previous visits and lack of funding.

The cMYP covers the period 2011-2015. It has been updated in 2012 (recommendation in para.9 Immunization financing).

The EPI policy has been revised in 2013 and updated in March 2014 to include the schedule, contraindications and AEFIs of the recently introduced PCV and Rota vaccines as well as the anticipated IPV. The MDVP has been updated highlighting that this applies only to TT and OPV vaccines (previously simplified as MDVP applies for liquid vaccines but this needed revision following liquid PCV vaccine introduction which should be discarded after six hours) However, the updated guideline is not yet printed and distributed to the intended users.

#### 4. Programme Delivery

An EVM assessment was conducted in late July 2013, which identified some issues related to temperature monitoring, preventive maintenance planning, lack of stock management information at peripheral level, poor control over vaccine distribution leading to stock outs at different levels, and issue with timely clearance of vaccines. As regards storage capacity, it is adequate at all levels, but the lack of clarity on the capacity dedicated by PFSA (Pharmaceutical Fund and Supply Agency, a parastatal in charge of procurement and logistics of all medical supplies) for EPI vaccines is an issue. Stock reporting from PFSA is an issue, with no regular and transparent communication with the program. In a context of capacity constraints in the cold chain, the country could not accommodate the request for earlier shipments of Men A vaccines for the October 2014 campaign that came to the country due to some challenge globally..

An EVM improvement plan has been subsequently prepared and is being implemented, but some activities seem to be behind schedule (ex. temperature monitoring devices not yet installed, capacity building activities not fully implemented, Oromia RVS issues still pending, computerized stock control system). Cold chain repair campaigns are being conducted with the support from CHAI and UNICEF, and a cold chain replacement and expansion plan 2014-2018 has been prepared, with a total budget of USD 49.3 million but no funding source well identified yet.

The cold chain and supply and logistics of vaccines is now being integrated into the Health Commodity Management Information System project, as vaccines supply and logistics are moving from EPI to PFSA. It was noted that no implementation progress report on the PFSA transition plan August 2013-August 2014 that was shared last year has been provided, and we are concerned that progress in the transition has been slow since its official endorsement in March 2012.

The Health Commodity Management Information System project was started in 2009 with US\$20m of funding from USAID led by JSI country office in Ethiopia and covers the warehousing, supply and logistics needs to all health commodities split into free ('program') drugs as well as paid for ('cost recovery') drugs. The project is scheduled to be complete by Sept 2015. Vaccines supply and logistics are being integrated into this project, and while there have been slow progress over the last year since initiation, the first phase is about to start with 3 out of the 13 cold



rooms at the regional level being set up with the computer systems and program to manage vaccine supply from the central stores.

Within these 3 regions, the system will be rolled down to the districts and Health facilities levels which is planned to take 6 months. Then the other regions will follow which will take around 2 years.

The progress to date on the commodities HMIS has resulted in the following improvements:

- infrastructure increases (over 5 years) where the number of Health centres covered has increased from 900 to 3200 and Health Posts from 0 to 15,000
- efficiency and accuracy gains where now at central and regional stores orders, delivery notes, record keeping, stock levels are automated
- Taken to scale – now 99% of all health commodities are in the system

There are still challenges to ensure that all staff use the system and not the backup manual process. Hence the future of the EPI programs supply and logistics will be linked to the success of this HMIS project. The B&MGF has funded the Vaccine integration into HMIS for 2 years with US\$2m. The PFSA confirmed that 40 staffs are being recruited to specifically manage the vaccines. The joint appraisal has noted that with the transition there is some impact on 'business as usual' which if not address could lead to lower performance in EPI.

CHAI support on the JSI led HCMIS project is in a mHealth initiative, where local software for a stock management system at Health Centre level is being piloted. This is due to be completed in 2014 and assessment report in 2015. The pilot is in 147 facilities in 8 regions. CHAI have a strong office in Ethiopia with 110 staff and 7 expatriates and vaccines is about 50% of their funding. They have been active in supporting the Rota launch, as well as significant training on cold chain and logistics and are assisting in addressing the Improvement plan. They have a grant from the B&MGF to provide TA for IPV which is planned for introduction in Sept 2015.

## 5. Monitoring and Evaluation, Surveillance and Data Quality

### 5.1 M&E and data quality

Significant gap is observed in immunization coverage among the reported administrative data, survey findings and WHO/UNICEF estimates.

Penta3 Coverage	WUENIC	JRF/APR	Coverage Survey	Surviving Infants (APR)
2011	65%	86%		2,815,285
2012	69%	84%	66%	2,832,654
2013	72%	82%		2,742,695

While all stakeholders acknowledge the Health Management Information System (HMIS) as the official data source for reporting immunization coverage, the immunization program also collects and uses program-specific data, sometimes thru a separate reporting channel. Key reasons for this seem to be associated with the (1) accessibility, (2) contents and (3) quality of the HMIS data.

(1) There is no systematic protocol for disseminating analysable data on a routine basis to programs and other key data users; standards are for data to be shared monthly and quarterly as well as annually.

(2) Not all data elements required by the immunization program are reported in the HMIS

(3) EPI stakeholders express concerns about the completeness and quality of immunization data in the HMIS

Both the HMIS and immunization program conduct periodic data quality assessments. Health information technicians are being recruited to assist with data management at health center



levels. Performance review meetings and integrated supportive supervision activities take place throughout the country and data quality issues are reviewed during these events.

For strategic data quality improvement, a systematic use of the assessment findings through a national and regional Data Quality Improvement Plan is needed. Furthermore, track the progress of data quality improvement through systematic documentation of desk review and assessment results. To facilitate this, cross-program collaboration and information sharing needs to be strengthened between HMIS and EPI.

To strengthen the use of data, it would be important to develop and implement a standard protocol for disseminating analysable HMIS data to programs and other data users on a monthly basis

The last immunization coverage survey was conducted in 2012. The Routine Immunization Improvement Plan (RIIP) includes a plan for an immunization coverage survey during 2006-2007 Ethiopian Fiscal Year (2014-2015). Considering the limitations of administrative data quality, this is a great opportunity to assess immunization coverage in communities and compare administrative data with an alternative current data source.

There are no gender-disaggregated data on coverage, as this is not part of the HMIS. Inequities are mainly identified as income-related, not gender-related, on the basis of the 2012 cluster survey but the country is encouraged to consider including gender in the HMIS.

## 5.2 Surveillance

The status of the VPD surveillance in the country has improved particularly AFP, measles and NNT. In this regard monitoring of surveillance indicators against program performance as well as immunity level is done regularly and program updates are shared with concerned bodies. The risk of additional WPV importations remains high given ongoing transmission in Somalia and the impact on polio eradication activities of the insecurity, difficult accessibility, and lack of infrastructure in areas of Ethiopia bordering Somalia, Sudan and South Sudan. Despite the activities of government and civil society organizations, some key AFP surveillance performance indicators have not been attained particularly at sub regional level. It is, therefore, important that AFP surveillance be strengthened in high risk areas to verify that any new WPV circulations are detected early enough for timely intervention. The other problems noted are the repeated measles outbreaks in some woredas of the country particularly in SNNPR region including inadequate investigation of outbreaks and timely detection of outbreaks. The OBs are thought to result from large gaps in population immunity due to poor coverage through routine and campaigns (goal for both is 95% coverage and SIAs that do not target a wide enough age range, among other factors. The late detection and investigation of OBs is thought to result from inadequate capacity of district level staff. On the other hand sentinel surveillance is going on for PBM and Rota in few selected hospitals in the country. Recently, intussusception surveillance started in 8 selected hospitals in the country to monitor whether there is significant relation between Rota vaccine and intussusception. Although we have different sentinel sites there are no such mechanism to monitor the impact of these interventions except sharing the data to AFRO, IST and others. As to vaccine safety there is no national database for vaccine safety on top of absence of reporting mechanism from lower level which currently under discussion on the way forward.

## 6. Global Polio Eradication Initiative

Ethiopia has been affected by the Horn of Africa polio outbreak, with a total number of WPV cases reported since the onset of the outbreak in August 2013 is 10. The last confirmed case date of onset was 5 January 2014. All cases were in the Somali Region



The polio high-risk areas are specifically targeted in the RIIP as “prioritized zones for RI support”. There is no single annual work plan for polio and RI, but polio campaigns have assisted in training for RI and NVS, and polio has contributed with staffing (50 staffs as surge capacity in Somali region) and transport fleet in improving routine immunization delivery, monitoring and evaluation.

IPV application to GAVI has been approved by the IRC in April 2014 and the introduction is planned in 2015.

## 7. Health System Strengthening

In Ethiopia the HSS grant is disbursed to the Millennium Development Goals Performance Fund (MDG PF), which is a pooled fund mechanism managed as a sector-wide approach.. The current grant was approved in February 2012, on the basis of a proposal that was framed as a stand-alone project under the HSFP. Subsequently GAVI signed the Joint Financing Arrangement (JFA), joining the MDG PF.

The objective of the MDG PF is to provide additional support to the implementation of the Health Sector Development Plan (HSDP IV). This is a SWAp-type support, based on a JANS. However, there is no real JAR, and no joint aide memoire embodying the commitments of the DPs (which are meeting monthly under the “HPN group”, of which GAVI is part). The HPN includes DFID, UNICEF, WHO, GAVI, The Netherlands, Italy, the World Bank, AECID – Spain, USAID, as core group, which provides a good level of oversight on the Fund. The GFATM is considering joining. The HSDP progress is reviewed during an Annual Review meeting (ARM), held in October of each year, and attended by partners, and a usually a GAVI representative. The HPN receives a MDG PF quarterly report, and the implementation and financial management of the activities are closely monitored by the DPs.

Partners agree on a national “comprehensive plan”, that is based on both a “top down” plan (“core plan”) and a “bottom up” approach (“woreda comprehensive plan”). There is no narrative plan in English (only the Amharic version is available, and DPs are working only on the basis of the excel spread sheet tracking the programs activities). The comprehensive plan identifies the GAVI contribution (VIG, operational support for campaigns and vaccines procurement).

Source of Funding comprehensive plan EFY 2007	US\$ million
Gavi	76.27
Government	20.4
MDG PF EFY 2006 and 2007	291.23

Because of the specific governance structure, the Joint Appraisal did not review the HSS grant.

**The JFA states that the disbursement triggers are:** “8.6. Subject to Article 8.3, for the first disbursement of the fiscal year the Signatory DPs will normally advance at least an amount sufficient to meet 50% of the annual contributions agreed between FMOH and the DPs. This first annual disbursement will be made, following the DPs’ receipt of the audit reports (in line with Article 12), MDG Fund Financial and Activity Report for the third quarter of the previous Ethiopian fiscal year, together with the agreed Annual Plan and cash flow forecast for the subsequent fiscal year. If agreed between the Signatories, as justified by the expected phasing of eligible expenditure, a larger share may be disbursed.”

The MDG PF contributors should not set up additional disbursement triggers other than the ones highlighted in the JFA (Article 8.6).

The SCM participated in the October Joint Consultative Forum meeting where the EFY Comprehensive Plan was discussed. A number of questions were raised by DP, but no written response has yet been provided by the Government. The Government has been asked to communicate to Gavi an official request for HSS tranche release.



## 8. Use of non-HSS Cash Grants from GAVI

### 8.1 Cash grants

The following cash grants were disbursed in 2013 to Ethiopia

Measles SIA - Operational costs	7,606,000
Meningitis A - operational costs	12,302,500
Vaccine Introduction Grant (rota)	2,469,000
<b>Total</b>	<b>22,377,500</b>

The funds are disbursed from the central level to the regions, then to the woredas. The financial reports are subsequently consolidated by the FMOH. Audit of the measles SIA operational costs (conducted in May-June 2013) will be finalized after the end of the Ethiopian Fiscal Year (EFY), and will be available in December 2014.

It was observed that EB 40.7 million (approx. USD 2.2 million) from the measles SIA campaigns (operational costs) have been left unutilized. EB 5 million from the PCV VIG are also in the FMOH accounts, not reported neither in the 2012 nor in the 2013 APR. The Government is required to propose a plan for the utilization of all these funds to support the RIIP implementation, and subsequently report of these activities and fund utilization.

The Men A campaign was conducted in October 2013 and no financial report will be available before the end of the EFY. This question will be followed up with the FMOH.

ISS overdue audit reports are still pending.

### 8.2. CSO

The HSS2 proposal (2012-2015) included activities to be undertaken by the CSOs. However, the budget from the MDG-PF had not been released yet preventing the implementation of planned activities. Steps are being made to allow this fund release (TORs and call for proposal have been finalized)

10 CSOs are currently engaged in polio response and routine immunization activities.

## 9. NVS Targets

According to the APR, the target vaccination coverage in 2015 is above 90% for Penta3, PCV3 and rota2. Though these targets for 2015 would require enough vaccine to cover at least 90% of the target population, the WUENICs for the past years suggest that the programme may be actually reaching some 70% of the target population. The doses planned for shipping in 2015 will need to be finalized based on vaccine stocks available at all levels in the country and more realistic assessments of the coverage likely to be reached in 2015. The shipment pattern for the last 3 years also suggests the country is being overly optimistic when using the admin coverage data since in 2012, 2013 and current year a significant quantity (15-40%) of the planned doses are postponed to the next year.

## 10. Immunisation Financing and Sustainability

Financial sustainability is assumed in the Growth Transformation Plan 1 (which ends in 2015), which plans that external resource will progressively decline as a percentage of the national budget, with a commensurate increase in internal revenue. The budget for the health sector has been growing, as part of the efforts to ensure universal access. Currently 70% of the budget is dedicated to "pro-poor sectors". External assistance continues however to finance a large portion of the social sector budget. The new Growth Transformation Plan (2016-2021) is under preparation, and it is recommended that the new cMYP be prepared to coincide with this macroeconomic planning cycle.



Ethiopia has until now timely paid for co-financing of GAVI supported vaccines. However the fact that this co-financing is entirely budgeted under the MDG PF raises substantial issues both in terms of financial sustainability and of potential contribution of Gavi HSS in the vaccines co-financing. The Ministry has assured that funds from the World Bank IDA are used to co-finance, but these funds are merged into the MDG PF, therefore not separately identified.

It is noted that a better adjustment of doses to the actual needs of the programs would save substantial amount of co-financing to the country.

## 11. Technical Assistance

There is considerable support from WHO, UNICEF, CHAI, JSI, USAID, PATH available to the EPI program, which also facilitates the country to embark on new programs.

On the basis of the findings of the mission, a particular focus for TA and coordination are required in the following areas: dedicated TA for cold chain/supply chain and in particular stock management, increase in dedicated support for equity improvement, which is already part of the partners' support to the RIIP, and data quality and data management.

## 12. Recommendations for the Review Panel

Supported programmes	Active until	Recommendation
DTP-HepB-Hib, 1 dose(s) per vial, LIQUID	2015	Renewal without a change in presentation with a revision of quantities based on stock position in country at end of 2014.
Pneumococcal (PCV10), 2 dose(s) per vial, LIQUID	2014	Renewal without a change in presentation on the basis of required country targets
Rotavirus, 2 -dose schedule	2015	Approval on the basis of required country targets

Ethiopia reported achievement as per the JRF of 2,259,212 children immunized with Penta 3 in 2013 (down from an estimated 2,761,628 planned in 2012), and is planning to immunize 2,745,828 in 2014.

Taking into account the history of shipments and the estimated stock level observed during the joint appraisal, as well as the policy of monthly stocks at central and peripheral level, it is proposed to evaluate the requirement for 2015 at 6.5 million doses of pentavalent. This would have the advantage of freeing space for storage and decreasing the current co-financing level, which appears to be much too high when compared with what the country is actually utilizing.

For rotavirus and PCV, the recommendation is to approve the proposed targets, and monitor the stock level to take corrective actions if required.

There is no change in the vaccine wastage; all remain as per the indicative rates set by WHO for the respective vaccine type, doses per vial and program. No significant evolution of drop-out rates<sup>2</sup>

### Request for programme extension

Vaccine	Start year	End year
Pneumococcal (PCV10), 2 dose(s) per vial, LIQUID	2015	2017

<sup>2</sup> In the 2012 report, the weighted Ethiopian EPI coverage by antigen is DPT-HepB-Hib1 80.0%; adjusted to DPT-HepB-Hib3 65.7%; (the adjustment is made to the DPT-HepB-Hib-3 coverage using the DPT-HepB-Hib-1-3 drop-out rate from card as a better estimate of the true drop-out rate for data collected by caregiver recall).