Joint appraisal report

Country	Eritrea
Reporting period	*Month/Year of the last appraisal report – 15 May, 2013 – 14 May, 2014* *Month/Year of the current appraisal 15 May, 2014 – 14 May, 2015*
cMYP period	*Year – 2012-2016*
Fiscal period	*Month – January – December*
Graduation date	*NA*

1. EXECUTIVE SUMMARY

(MAXIMUM 2 PAGES)

➢ **The appraisal process**

- The appraisal process of the country took place with all joint appraisal team members in the country. A team was formed from the Ministry of Health Policy, Planning & HRD Department, EPI unit, Project Management Unit, UNICEF and WHO at country level. At HQs level, GAVI Secretariat is a member and is frequently consulted. Hence, the joint appraisal team is responsible to carry out the appraisal and report on time.
- In this process several face-to-face dialogue and meetings were conducted in the country between the stakeholders. At regional/global level dialogue took place with partners through emails and teleconference for better clarification and exchange of information. WHO and GAVI partners were consulted and their inputs and comments were incorporated. Based on these relevant documents were reviewed and data analyzed: the comprehensive country multiyear plan, annual progress report, financial reports and post-introduction evaluations of measles second dose and Rota vaccines documents, EPI coverage survey of 2013 and annual work plan were reviewed. Implementation of the work plan and evaluation of activities funded by GAVI for EPI and HSS were appraised as well. This whole Joint Appraisal report has been presented to all HSCC members and their approval was secured by their signatures as presented in the attached document.

- Eritrea has been receiving GAVI support since 2002, the total amount committed since 2002 is about US$ 17.25 million out of which US$ 14.84 million has been disbursed till March 2015. Vaccine support accounts for 75% and non-vaccine support for 25% of the total amount. GAVI grant support for the procurement and introduction of new vaccines covers almost above 80% of the total expenses and this makes the country to scale-up its co-financing amount in the procurement of vaccines and covering other operational cost to strengthen the routine vaccination services in the country.The country started the GAVI funded HSS implementation in 2010 (US$ 2.7 million). The program implementation has been delayed due to various administrative reasons (delayed implementation, reporting and disbursements) and currently the program is in its last year of implementation. The Country received the last tranche of US$ 715,250 in Nov 2014.

- **Achievements**
  - The country introduced Hep.B vaccine in 2002; Hib vaccine in 2008; and measles second dose in 2012; rotavirus vaccine in Aug 2014; PCV to be introduced in August 2015 and IPV in November 2015. MNT eliminated; polio-free for the last 10 years; measles controlled, and scaling-up to eradication phase and strong disease surveillance system in place for EPI target diseases; implemented Sustainable Outreach Service (SOS) to reach the less accessible areas and marginalized populations to achieve equitable immunization services in all localities.
  - Eritrea Population Health Survey (EPHS), EPI coverage survey and the WHO & UNICEF joint coverage reports indicated that coverage for under one year age children is above 95% and Penta1- Penta-3 drop out is below the WHO recommended benchmark.
  - The HSS grant funded has 46 activities under 6 major objectives. 33 (71%) of the activities have been completed, 8 activities will be completed in the coming months (Nov-Dec 2015) and completion rate of 5 activities will remain below 100% (related to development and implementation of some national level policies by HRD. The country has received the entire amount approved under the HSS (US$ 2,777,800) and had US$ 1,072,617 at the beginning of 2014 and has spent US$ 647,962 (burn rate of 60%) and carried forward US$ 424,655 to 2015. The country has been able to meet all targets set under HSS.

- **Challenges**
  - EPI vaccine shipment and delivery from abroad using chartered plane is too expensive and it is not easy to accommodate it at one time delivery arrival of different vaccines at national level and could affect the storage capacity.
  - Shortage of skilled human resources to conduct routine maintenance of the cold chain system and unavailability of adequate maintenance kits and spare parts for the cold chain. Shortage of transport and fuel to carry out outreach visits in hard to reach areas and for regular supervisory visits.
  - The government is committed to co-finance 20% of the new vaccine cost, but, still there is a need to co-finance 10% for the traditional vaccines which are procured through UNICEF.
  - Delay of release of funds after the submission of the APR reports to GAVI secrétariat and the need for adjusting the reporting period to match the Eritrea's fiscal year (Jan – Dec.)
  - Reporting and utilization of data for planning and decision making at lower levels remains to be unsatisfactory.

- **Key recommendations**
  - Expansion and strengthening of Sustainable Outreach Service (SOS) in less accessible geographical areas and nomadic population using RED/REC strategy.
  - Provide refreshment training for the biomedical engineering staffs on cold chain equipment maintenance, strengthen community participation during micro planning and strengthen to improve data quality self-assessment (DQS) at district and service levels.
  - Advocate for increased resource allocation of Government co-financing amount for procurement of new underused and traditional vaccines for routine vaccination service.

- **HSS and New and underused vaccine support**
  - The surviving children for immunization in 2015 was 115,829 and surviving infants for vaccination in 2016 are 118,333 which is 2.8% growth projection of each year. Eritrea requests the renewal of the new and underused vaccines according to the agreement made for procurement of DPT-HepB-Hib, Rotarix and Pneumococcal Conjugated Vaccines (PCV-

13). It also requests grant fund support for Measles second dose (MCV2) according the plan, and renewal of the grant support for the procurement of PCV-13 of fully liquid formulation of one dose vial of three vaccination schedules and IPV injection of 5 dose vials to be given in the 3rd vaccination schedule at 14th week of child age. The Government also pledges to co-finance the above listed vaccines according the GAVI decision letter to increasing the co-financing on yearly bases as previous years practice.

- Provision of solar systems to facilities to maintain the cold chain system, supply of photo voltaic solar systems to selected health facilities; support training institutes to build health workers capacity for the continuous production of human resources for health; development of policy document and guidelines and production and dissemination of policy and plan documents are the main strategic focus of the current GAVI/HSS grant.

➢ **Financial management:**

- The onetime grant GAVI financial support for the introduction of new vaccines (VIG) is managed under the director of finance of the Ministry of Health within the project unit along with other government budget. The budget is utilized in accordance to the activity line proposed and follows the rules and regulations of the Ministry of Finance of the State of the Government of Eritrea. For activities planned to be implemented at sub national level budget is allocated for each zoba and the financial head transfers the budget according the budget break down made by the program manager. After completing the work plan, the zonal medical office submits his activity report and liquidation is made on the utilized budget. Annual audit is done by the general audit section of the country managed under the President Office. Finical management has not been any major changes worth reporting in the context in which the GAVI/HSS grants were utilized. The management arrangements remained constant with the PMU managing finances, the HSS focal person coordinating stakeholders as far as implementation of activities is concerned and compiling APR reports and the HSCC providing overall policy guidelines.

1.1. GAVI grant portfolio overview

Eritrea has been receiving GAVI support since 2002, the total amount committed since 2002 is about US$ 17.25 million out of which US$ 14.84 million has been disbursed till March 2015. Vaccine support accounts for 75% and non-vaccine support for 25% of the total amount. The country has introduced Penta (2008), measles second dose (2012) and Rota (in 2014) with GAVI support. PCV (July 2015) and IPV (2015) will be introduced in coming months.The GAVI Grants support for the procurement of new and under use of vaccines have encouraged the country to assess and determine the priority public health problems on vaccine preventable diseases and prepare and submit proposals for the introduction of new vaccines. GAVI grant support for the procurement and introduction of new vaccines covers almost above 80% of the total expenses and this makes the country to scale-up its co-financing amount in the procurement of vaccines and covering other operational cost to strengthen the routine vaccination services in the country.

The country started the GAVI funded HSS implementation in 2010 (US$ 2.7 million). The program implementation has been delayed due to various administrative reasons (delayed implementation, reporting and disbursements) and currently the program is in its last year of implementation. The Country received the last tranche of US$ 715,250 in Nov 2014.

The GAVI HSS support is meant to strengthen the health systems which in turn are also meant to help sustain a vibrant national immunisation system. Initially when the GAVI/HSS was

conceived there was not much focus on the EPI program. But when the reprogramming was done in 2013 activities that also strengthen the EPI program were given extra emphasis. Health system strengthening required tackling key systems challenges, categorized at three levels in the Eritrean context: health policy level barriers, health services delivery level barriers and community level barriers. Once these barriers were identified they were changed into actionable, EPI linked statements as objectives.

Health Policy Level Barriers:

- Need for completion of the formulation of the National Health Policy (NHP) and National Health Sector Development Plan (NHSDP);
- Strengthening HRD for sustainable HRH work force production, retention and maintenance;

Addressing the lack of policy framework for RBM and utilization of HMIS for evidence-based decision making as well as for Health Promotion including lack of routine EPI specific communication policy framework.

Health Service Delivery Level Barriers:

- Weak Results Based Management with evident skill deficits in Strategic planning, monitoring and evaluation and utilization of HMIS for evidence-based decision making;
- Destruction of health infrastructure by war, hence need for rehabilitation and support; lack of essential medicines and equipment depriving communities of access to quality health services

Community Level Barriers:

- The life style of the nomadic population at the coastal districts, high dropout rate between BCG – Measles, limited community empowerment, inequitable access to health services.

The current GAVI HSS grant cannot address all the above explained barriers, but is aimed at helping tackling some of them, in which the MoH takes care of the remaining, by using other means at its disposal. Based on the above stated rational therefore the HSCC has developed six SMART objectives to effectively strengthen Eritrea's health system, by utilizing the current funding opportunity over four years of implementation period.

1.2. Summary of grant performance, challenges and key recommendations

Grant performance (programmatic and financial management of NVS and HSS grants)

Achievements

1. Eritrea has had many achievements - it introduced Hep.B vaccine in 2002, Hib vaccine in 2008, and measles second dose in 2012, rotavirus vaccine in Aug 2014 and plans to introduce PCV in August, 2015 and IPV in November, 2015.

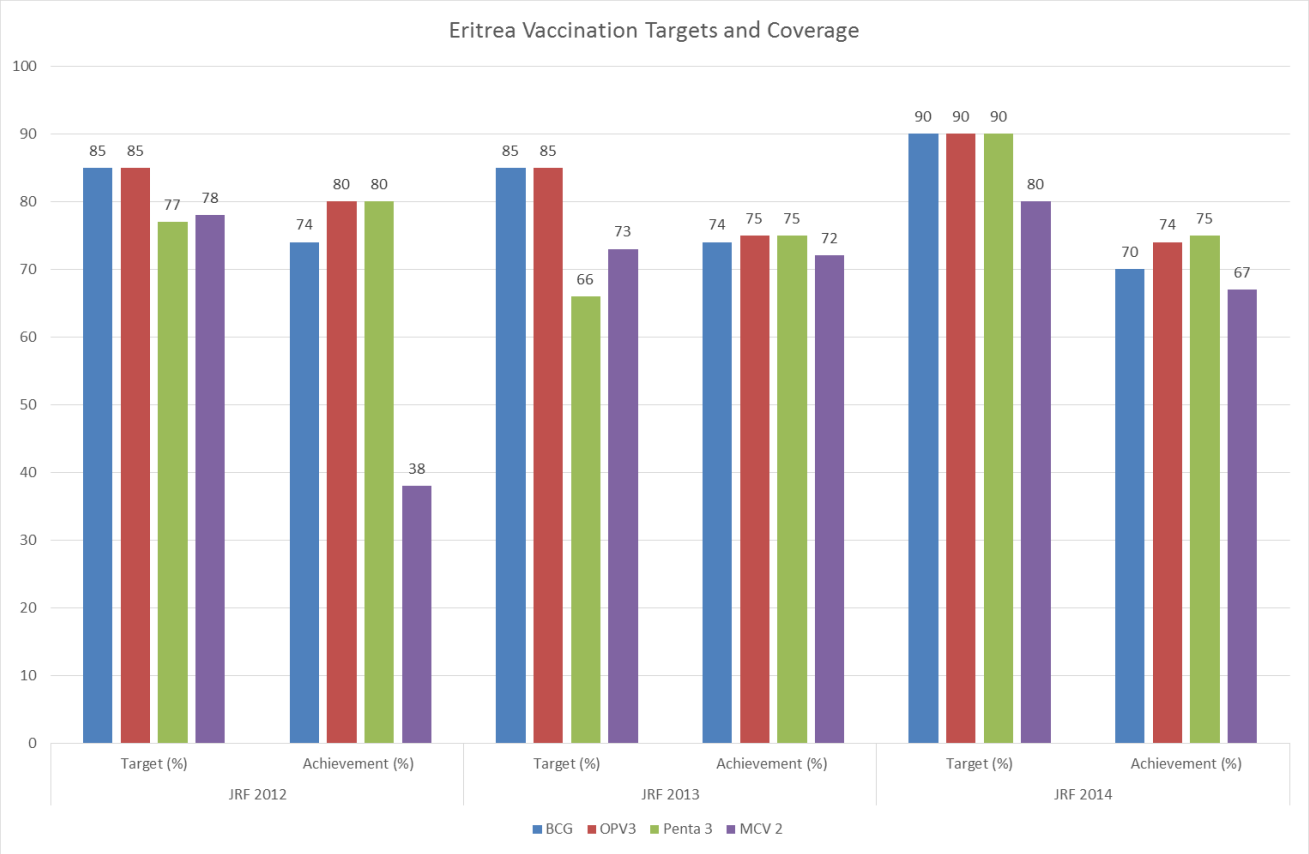
2. The country has eliminated MNT, polio-free for the last 10 years, measles controlled, and scaling-up to eradication phase. The country has well-structured a strong disease surveillance system in place for EPI target diseases.

3. Eritrea has implemented a new strategy called Sustainable Outreach Service (SOS) to reach out to less accessible geographically areas, marginalized populations to achieve equitable immunization services in all localities. EPI coverage survey 2013 reports that

sex-disaggregated data indicated that 93.4% of boys and 92.2% of girls of target population for immunization were fully immunized with Penta 3 before one year of age.

4. In Eritrea the routine administrative coverage is much lower as compared to the survey report and other population health surveys. The denominator is a major problem in computing the coverage. Population census has not been conducted that would have helped to determine the actual target population in all levels. The denominator the country is using may not be accurate, because 3% projections for population growth from 2002 may seem to be overstated. As a result the routine administrative coverage has been below the targets for all antigens as per the JRF. In 2010 Eritrea Population Health Survey (EPHS) was carried out at national level by the National Statistics Office (NSO), EPI coverage survey was done in 2013 by external consultants and the WHO & UNICEF joint coverage report is prepared on a yearly bases. All these reports indicated that vaccine dose uptake on the recommended age for all antigens is almost above 95% coverage for under one year age children. The Penta1- Penta-3 drop out is below the WHO recommended benchmark.

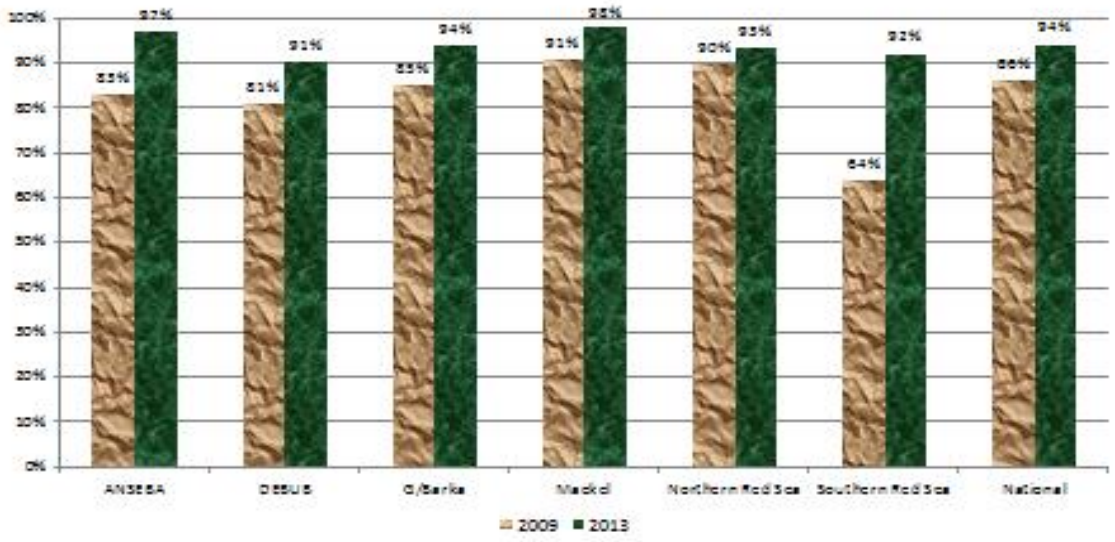
The Graph below indicates routine administrative coverage as per in JRF



This graph shows the achievement is below the targets. But this is because of the denominator problem. This actual achievement is verified every two to three years by conducting EPI coverage surveys using independent external consultants, including WHO and UNICEF estimates.

The graph below indicates EPI coverage survey results valid coverage and vaccination card retention at household levels of 2009 and 20012 at national and sub national levels.

EPI Coverage Surveys, Child Health Card Retention 2009 Vs 2013



- Using the opportunity of introduction of new vaccines, New Vaccine Support (NVS), the country was able to use the GAVI Vaccine Introduction Grant (VIG) support to strengthen the existing structure of routine vaccination program. This was done through capacity building of the health workers and make available of at least two EPI trained health workers in each health facility to carry out appropriate handling of cold chain and vaccine administration.

- Procurement and installation of new walk-in cold rooms and refrigerators to attain adequate storage capacity and contingency for optimal vaccine storage at national and sub national levels. Conducting social mobilization activities to increase community awareness and participation on strengthening the routine vaccination services was also done.

- In 2012 GAVI HSS budget activity line was reprogrammed to focus more on support of strengthening the routine vaccination services in the country. Health facilities in remote areas were equipped with solar light to motivate and encourage and retain health workers and provide un interrupted access to routine vaccination services in the setting to increase vaccination coverage to >90% and decrease vaccination drop-out rate to <10%.

- Procurement and installation of 3 incinerators for safe disposal of EPI injection safety materials and other medical wastes for three community hospitals.

- Using GAVI VIG support, the program was able to update and print EPI policy guidelines, training manuals and EPI data reporting tools by incorporating the new vaccines in EPI reporting tools.

- Development and dissemination of NHP and HSSDP

- Developed guidelines of Kebabi Health Committee, referral systems and common emergencies at Hospital and HC levels,

- Up graded and equipped of training institutions with ICT equipment both at zonal and HQs levels, Strengthened Zonal and National training institutes were provided with ICT, training materials, equipment, transport, fuel.
- Capacity building (training) in IDSR, HMIS, and RBM skills,
- Conduction of periodic integrated supportive supervision,
- The HSS grant funded 46 activities under 6 major objectives. 33 of the activities have been completed (71%). 8 activities will be completed in coming months (by Nov-Dec 2015) and completion rate of 5 activities will remain below 100% (related to development and implementation of some national level policies by HRD. The country has received the entire amount approved under the HSS (US$ 2,777,800) and had US$ 1,072,617 at the beginning of 2014 and has spent US$ 647,962 (burn rate of 60%) and carried forward US$ 424,655 to 2015.

The country has been able to meet all targets set under HSS

Name of Objective or Indicator (Insert as many rows as necessary)	Baseline		Agreed target till end of support in original HSS application	2014 Target						Data Source	Explanation if any targets were not achieved
	Baseline value	Baseline source/date			2010	2011	2012	2013	2014		
Under five mortality rate (per 1000)	93	2006	70/1000	63/1000					63	2010 EPHS	
Number / % of Zobas achieving ≥80% Penta 3 coverage	33	2006	100%						100%	EPI Coverage survey - 2013	
National Penta. 3 coverage	82	2006, WHO & UNICEF	85%						95%	EPI Coverage survey	
# of HWs distributed according to plan	0	2008/HRD division	100% (4460)	100% (4460)					100% (4460)	HRD	
# of HMT members trained	25	2008/HF mgt division	100% (120)	100% (120)					100% (120)	HFMD	
# of HMIS bulletin available in health facilities	0	2008/HIMS	100% (300)	100% (300)					100% (300)	HIS	
# training sessions conducted in RBM skill 1&2	0	2008/HF mgt division	100% (4)	100% (4)					100% (4)	HFMD	

# of HFs provided with water supply and solar system	0	2008/HF mgt division	100% (4)	50%					50%	HFMD	Remaining 50% of budget used to procure solar gadgets
Referral and emergency service policy document developed	0	2008/HF mgt division	100% (1)	100% (1)					100% (1)	HFMD	
# of HWs trained in triage and emergency management	0	2008/HF mgt division	100% (120)	100% (120)					100% (120)	HFMD	
# of integrated outreach services conducted	0	2008/EPI	100% (8)	100% (8)					100% (8)	EPI	

Challenges

- EPI vaccine shipment and delivery from abroad using chartered plane is too expensive and it is not easy to accommodate the onetime delivery arrival of different vaccines at national level and could affect the storage capacity.

- Shortage of skilled human resources to conduct routine maintenance of the cold chain system (walk-in cold rooms, electrical and solar refrigerators) and unavailability of adequate maintenance kits and spare parts for the cold chain.

- Transport and fuel shortage to carry out planned outreach visits at district level particularly in hard to reach areas and to conduct supervisory visits from national to sub national and district levels.

- While the government is committed to co-finance 20% of the new vaccine cost, still there is a need to co-finance the traditional vaccines which are procured through UNICEF supply division.
- Delay of release of funds after the submission of the APR reports to GAVI secrétariat and the need for adjusting the reporting period to match the Eritrea's fiscal year (Jan – Dec.)

- Reporting and utilization of data for planning and decision making at. lower levels remains to be unsatisfactory

Key recommended actions to achieve sustained coverage and equity

- Expansion and strengthening of Sustainable Outreach Service (SOS) in less accessible geographical areas and nomadic population segments using RED/REC strategy to enhance routine vaccination services and increase immunization coverage in children before one year of age.

- Provide Refreshment training for the biomedical engineering division staffs to update and build their capacity on cold chain equipment maintenance.

- Strengthen community participation by involving community health agents, village administrators and local Community Based Organization (CBO) during zonal and sub-zonal micro planning to increase their participation and contribution on child vaccination program to decrease vaccination drop-out rates.

- Advocate for increased resource allocation of Government co-financing amount for procurement of new underused and traditional vaccines for routine vaccination service.
- Strengthen to improve data quality self-assessment (DQS) at district to enhance proper reporting and utilization of data for planning and decision making at service level.

1.3 Requests to GAVI's High Level Review Panel

Grant Renewals

New and underused vaccine support

The country acknowledges the renewal of the new and underused vaccines according to the agreement made for procurement of DPT-HepB-Hib, Rotarix and Pneumococcal Conjugated Vaccines (PCV-13) which is planned to be introduced in July 2015. The Government also pledges to co-finance the above listed vaccines according the GAVI decision letter by increasing the co-financing level on yearly bases as previous years practice. The EPI program will advocate for higher government authority commitment to increase their awareness and interest to increase the co-financing amount and sustain their funding commitment for the procurement of new and underused vaccines, procurements of spare parts for cold chain equipment, make transport support and fuel subsidy for outreach services and other EPI operational activities.

Type of Support	Current Vaccine	Preferred presentation	Active until
Routine New Vaccines Support	Measles second dose, 10 dose(s) per vial, LYOPHILISED	Measles second dose, 10 dose(s) per vial, LYOPHILISED	2016
Routine New Vaccines Support	DTP-HepB-Hib, 1 dose(s) per vial, LIQUID	DTP-HepB-Hib, 1 dose(s) per vial, LIQUID	2015
Routine New Vaccines Support	Rotavirus, 2-dose schedule	Rotavirus, 2-dose schedule	2016
Routine New Vaccines Support	Pneumococcal (PCV13), 1 dose(s) per vial, LIQUID	Pneumococcal (PCV13), 1 dose(s) per vial, LIQUID	2016

The country would like also to have the grant fund support for Measles second dose (MCV2) according the plan. Upon completion of the 5 years grant plan, the government will be in a

position to take responsibility of procuring measles vaccine for the second dose to keep on the vaccination schedule of MCV2 at 18 months age of our children to increase herd immunity.

According to the work plan of 2015 and GAVI approved country proposals for introduction of new vaccines, PCV-13 of fully liquid formulation of one dose vial of three vaccination schedules in injection form and IPV injection form of 5 dose vials in the 3rd vaccination schedule of OPV in 14th week of child age. Both vaccines will be introduced into the routine vaccination program in July, 2015 and November, 2015 respectively. Renewal of the grant support for the procurement of these vaccines will continue based on the existing GAVI and Government bilateral agreement of vaccine introduction protocol.

Health systems strengthening support

The country is not requesting any funding for this year, because the existing HSS funding is also ending this year. Currently the end project evaluation is being conducted and this will be finalized the by end of July 2015. Subsequently, the plan to apply for a new round of funding is in early September 2015. This means no cost extension, reprogramming or re-allocation is requested.

1.4 Brief description of joint appraisal process

The primary purpose of the MOH, Health systems is to promote, restore and maintain health. It encompasses people, institutions and resources, arranged together in accordance with established policies, to improve the health of the population they serve, while responding to people's legitimate expectations and protecting them against the cost of ill-health through a variety of activities whose primary intent is to improve health.

There is a Health Systems Coordinating Committee (HSCC) and is chaired by the Director General of Policy Planning and HRD and avails representatives from various divisions in the Ministry as members of the committee. The committee oversees overall implementation status of all grants including the GF and GAVI/HSS, according the activity line of the budget. Regular meeting is conducted on quarterly basis regularly as required. Minutes of such meetings are attached herewith.

Based on this a team was formed from the Ministry of Health Policy, Planning & HRD Department, EPI unit, Project Management Unit, UNICEF and WHO at country level. At HQs level, GAVI Secretariat is a member and is frequently consulted. Hence, the joint appraisal team is responsible to carry out the appraisal and report on time.

The appraisal process of the country took place with all joint appraisal team members in the country. In this process several face-to-face dialogue and meetings were conducted in the country between the stakeholders. At regional/global level dialogue took place with partners through emails and teleconference for better clarification and exchange of information. WHO and GAVI partners were consulted and their inputs and comments were incorporated. Based on these relevant documents were reviewed and data analyzed. The comprehensive multiyear plan, annual progress report, financial reports and post-introduction evaluations of measles second dose and Rota vaccines documents, EPI coverage survey (2013), activities were also reviewed on annual work plan basis. Implementation of the work plan and

evaluation of activities funded by GAVI for EPI and HSS were appraised as well. Technical team also shared with draft document with relevant experts for receiving of feedback and comments, some of them were incorporated into the final report.

The team has also conducted several discussions with HSCC members during the planning and preparation of the Joint Appraisal document so as to secure final approval. The joint appraisal process and findings were endorsed by the HSCC members.

Hence, the team has mainly accomplished; management of the entire process as per agreed timelines. These included the follow-up of each step; collection of relevant sources of data and documents for report writing; appraisal and documentation of the findings; and report-writing, and finalizing the joint appraisal report.

This whole Joint Appraisal report has been presented to all HSCC members and their approval was secured by their signatures as presented in the attached document.

A teleconferencing meeting was conducted in which from the country side the HSS focal person, the PMU director, one WHO and two UNICEF representatives participated. Key members from GAVI HQs and WHO/IST also participated and played a leading role. Finally the country team has incorporated all comments and suggestions entertained in the conference.

2. COUNTRY CONTEXT

(MAXIMUM 1-2 PAGES)

2.1. Comment on the key contextual factors that directly affect the performance of Gavi grants.

Administratively the country is divided into six administrative zones known as Zobas:
Gash Barka (GB), Anseba, Debub, Debubawi Keyh Bahri (DKB), Maekel and Semenawi Kehy Bahri (SKB), 58 Sub Zones, 715 administrative areas and 2,564 villages. Population census has not been carried out in Eritrea, annual population estimates are given by the Ministry of Local Government.

The EPI Unit at national level is under the department of public health/family and community health division. The unit is responsible for policy standards, priority setting, and capacity building, and links with other stakeholders and donor partners for resource mobilization. The unit has 6 persons including the national EPI manager, logistics manager, data manager, cold chain focal person, EPI medical technician (solar refrigeration technician) and assistant cold chain focal person.

At the Zoba (6) level, the EPI falls under the Family and Community Health Division and there are 58 districts (sub zobas) in the country. EPI service delivery is integrated with other MCH services and it is delivered as a package in all health facilities (285) in static and outreach services (385). Each HF has 2 EPI trained focal persons (vaccinators). The programme delivers immunization for children against nine vaccine preventable diseases namely – Tuberculosis, Diphtheria, Whooping Cough, Tetanus, Polio, Measles, Hepatitis B, Homophiles influenza type B and Rota virus cause diarrhea.

The EPI unit has a central cold chain store, and cold chain stores and walk-in cold rooms are also available in each of the Zoba. The Zoba cold chain stores collect vaccines from the central EPI cold chain store quarterly, and the health facilities collect vaccines from the Zoba cold chain stores monthly. Procurement of vaccines and injection safety materials are carried out through UNICEF SD.

WHO provides support in the form of technical assistance such as training and surveillance activities on the EPI Target diseases. In addition to this WHO & UNICEF provide operational fund on routine and supplementary immunization activities. GAVI supports for new and under used vaccines and injection safety materials procurement funds and provides also VIG during the introduction of new vaccines.

In the Eritrea, there have not been any major changes worth reporting in the context in which the GAVI/HSS grants were utilized. The management arrangements remained constant with the PMU managing finances, the HSS focal person coordinating stakeholders as far as implementation of activities is concerned and compiling APR reports and the HSCC providing overall policy guidelines.

The political commitment to the achievement of high level of immunization coverage remained unwavering. Hence everything to achieve such a level of commitment was done with government funding complemented with partners support including GAVI grants.

However, some of the challenges that the government have been facing in maintaining the cold chain systems were the frequent interruption of central electricity supplies which required mitigating efforts of supplying selected facilities with solar systems and high staff attrition, that required investments to help staff retention which included provision of incentives to high performing personnel and supporting in service training and staff up grading institutions.

Leadership, governance and programme management

The HSCC is led by the Director General of the Department of Policy, Planning and HRD. Other departments in the Ministry and especially those directorates whose function is related to systems strengthening and enhancement of the EPI program are active members. These include the division of services delivery(Health Care Services Delivery), the division of Health Information Systems, the division of Environmental Health and the PMU who manages finances and procurement issues

Costing and financing

In 2014 majority of the funds for immunization were sourced from donors and partner organization. GAVI provided about 32% of the overall funds which were used for new and underutilized vaccines, injection supplies and personnel. The other partners supported traditional vaccines (UNICEF), cold chain (JICA) and personnel (UNICEF and WHO). The country's contribution in 2013 was 14% and in 2014 it was 6.5%, this raises the issue of financial sustainability. The government is committed to increasing its contribution and has been regularly making the co-financing payments for GAVI supported vaccines. The table below shows expenditure on immunization program in Eritrea.

	Total Expenditures for Immunisation 2013 (US$)	**%**	**Total Expenditures for Immunisation 2014 (US$)**	**%**
Country	452,600	14.1	170,500	6.5
GAVI	590,635	18.5	843,225	32.3
UNICEF	737,233	23.0	424,405	16.2
WHO	969,324	30.3	385,000	14.7
JICA	450,000	14.1	340,000	13.0
Total	3,199,792		2,613,130	

The Government has fulfilled its co-financing obligation as per the GAVI decision letter for Pentavalent, and Rota for year 2014 and 2015. The commitment is also to be fulfilled for the new vaccines such as PCV to be introduced. Financial sustainability mechanism plan need to be developed and endorsed by the Ministry of finance to fulfill the commitment of increasing the funding by 10% every year, which is important for ensuring the priority and sustainability.

Human resources management, cold chain and logistics, immunization service delivery, surveillance and reporting, demand generation and communication

Effective vaccine management system has been functional using vaccine management tools. Through IPV introduction Rapid Response Funds (RRF), two walk in cold rooms have been procured and installed to strengthen the cold chain capacity. Cold chain monitoring system is being strengthened by developing cold chain equipment replacement and expansion plan is on-going, and on progress. To monitor all cold rooms through the introduction of Central Temperature Monitoring (CTM) system and temperature mapping study at national level on progress.

3. GRANT PERFORMANCE, CHALLENGES AND RENEWAL REQUESTS

(MAXIMUM 3-5 PAGES)

3.1. New and underused vaccine support

3.1.1. Grant performance and challenges

The general objective of Expanded Program on Immunization (EPI) is to provide accessible and equitable vaccination services in all localities by improving access and utilization of the routine vaccination services by addressing all problems affecting different component of the EPI program. This objective could be achieved through procurement and delivery of vaccines

according the target population. Securing optimum temperature and adequate storage capacity for vaccines at different levels to secure potent vaccines to conduct vaccination service at static at health facility level in routine bases. Implementation of sustainable outreach services in less accessible area and nomadic population segments.

GAVI support for the country is more focused on financial support on procurement and shipment of new vaccines. In addition to this GAVI provides financial support as Vaccine Introduction Grant (VIG) for the introduction new vaccines such as Measles second dose (MCV2) and Rotarix vaccines in 2014. This one time VIG financial support is utilized for capacity building of health workers on the introduction of new vaccines, developing and printing of social mobilization materials during introduction of new vaccines and updating and printing of EPI reporting tools and guidelines. But Immunization Services Strengthening Support (ISS) is crucial to expand and sustain routine vaccination services in all localities to obtain equitable access to vaccination service to all children. The county recommends having support of GAVI ISS to increase access and utilization of routine vaccination service in remote geographical areas. The EPI communication strategy was developed before two years but because of budget constraints and funding shortage of partners for printing, the country is not able to disseminate the tools at service level.

In Eritrea there are limited socio-economic and geographical barriers that hinders on time vaccine dose uptake in association to the recommended schedules and the country has developed RED/REC strategies to address these problems. To implement this strategy the government is committed to provide transport support and made fuel subsidy but still there is a gap in addressing some localities. But partner's financial support in these areas is limited. To reach all children with vaccination services and decrease the number of unimmunized children; there is a need of partner's technical and financial support in these areas to improve access and utilization of vaccination services for all children. Based on the EPI coverage survey results of 2013, equity in gender and ethnicity is almost fulfilled and all citizens have equal opportunity to access and utilize the available vaccination service in their setting and this achievement needs to be sustainable with technical and financial support from partners.

The country has introduced new vaccines; Measles second dose (MCV2) and Rotarix vaccines into routine vaccination program in 2013 and 2014 respectively. Measles 2nd dose was introduced according the plan and it was successfully implemented to decrease measles disease susceptibility and increased herd immunity among young children. During the introduction of Rotarix vaccine in 2014, the country has experienced EPI logistic delivery challenges and the introduction of the new vaccine was delayed by one month from planned time, because of late delivery of the vaccine. At the same time the procured quantity of Rotarix vaccine doses were below the target, considering the target population for the introduction year and expected vaccination coverage of the same year. The country has experienced two weeks Rotarix vaccine stock out at national. It is highly recommended to revise the target, population for Rota vaccination and expected coverage of the vaccine for the same year otherwise the same problem will be face in 2016. The baseline target of section 4 of the APR, 2014, we are kindly reminding that GAVI decision letter for the procurement of Rota vaccines for 2016 should go accordingly for both GAVI support and Gov. co-financing amount for the procurement of Rota vaccine. The government is in a position to procure the one time shortfall 27,800 doses of Rota for 2014 through UNICEF SD to correct the program implementation errors gap.

Health works are aware and are following and reporting Adverse Effects Following

Immunization (AEFI). The AEFI reporting format is available in each health facility. Training and sensitization was provided for the health workers by the EPI program integrated with Immunization In Practice (IIP) modular training. In addition, the pharmacovigilance unit of the regulatory service of the Ministry of Health has also provided sensitization and orientation for health workers on AEFI along with drug reaction training at sub national level. Based on this, health staffs working for EPI program are vigilant on reporting the AEFI to the regulatory service and the EPI program.

In 2014 Data Quality Self-assessment was provided in all zobas. The main objectives of DQS training was to harmonize the system of data reporting and utilization the data sets at service and district level and to enhance planning and decision making based on the obtained information from the aggregated data. But still there is a need for financial and technical support from GAVI and other partner's to carry out data quality evaluation at national level to improve data reporting system, clean and harmonized data sets of the EPI program that could help for planning and vaccine forecasting purposes.
Eritrea has carried out Measles 2nd dose and Rotarix vaccines Post Introduction Evaluation (PIE) in Feb. 2015 with technical support of external vaccine introduction experts. The evaluation was done at national in different sections of the program, at sub national, district, health service and community levels. To obtain representative sample size from the six administrative zobas, the country was divided in to three geographical areas: Eastern Low Land, Western Low Land and High Land. Adequate sample size was obtained to evaluate the impact of the introduction of the two vaccines in different levels.

The main objectives of the evaluation were:

1. To conduct comprehensive evaluation of the impact of the introduction of MCV2 & Rotavirus vaccines in routine immunization programme.
2. To identify challenges associated with the introduction that can be addressed in future introduction plan.

Some of the key findings of MCV2 and Rotarix vaccines PIE were:

<u>Strengths</u>

- Cold chain capacity was expanded at national and regional levels with adequate net storage capacity.
- Coverage data for all vaccines including the MCV2 and Rota was available for the year (2014) even though rota was introduced in August 2014. Immunization coverage data, vaccine wastage rate and vaccine stock management are computerized at national and sub national levels and immunization monitoring charts are updated at all levels visited.
- The national policy and practice in use of AD syringes, needles, and safety boxes, disposal of used syringes and needles, no recapping of used syringes and needles is in good practice. Incinerators are used where applicable and pit burning was done in facilities without incinerators for waste disposal.
- In Eritrea, Food and Drug Administration (FDA) is the national regulatory authority (NRA) responsible for vaccine registration and the NRA is also responsible for Pharmacovigilance and safety monitoring (AEFI) and AEFI monitoring procedure available at service level.
- Introduction of the new vaccines increased community awareness about EPI.

Weaknesses

- Few immunization field guides and summary sheets found at the regional level are yet to be updated to include the two vaccines. (NB. At this time all are updated and distributed)
- Few new staffs (especially at lower levels) are not conversant with the formula for calculating the immunization coverage and vaccine wastage rate.
- The bundling system of vaccines and AD syringes is not full practiced and this can cause avoidable shortages in the future if stock is not carefully planned
- There were financial implications for cold chain, waste management, and development of communication materials and training which had to be sourced from partners.
  After the introduction of PCV & IPV, in the first quarter of 2016, PIE of these two vaccines will be done and technical and financial support will be requested from WHO/IST.

The main bottle neck in immunization program delivery is inadequate cold chain management and optimal vaccine storages. There is a gap of skilled man power for proper and planned maintenance of the cold chain equipments at different levels. To address these problems and gaps, there is a need of partners' to provide training and upgrading the capacity of the biomedical engineering unit within the Ministry of Health. In addition, the cold chain maintenance workshop within the biomedical division had shortages of maintenance kits and spare parts to conduct routine maintenance activities on the cold chain equipments. In health facilities located in remote area; there is frequent turn over and low retention of the healthcare providers and shortage of EPI trained staffs. The quality of the vaccination service could be compromised especially with the introduction of new vaccines that could increase work load of the health workers at service level. Hence, the zonal management team should consider training EPI focal persons from the newly assigned health workers to upgrade and update knowledge of vaccination program that needs budget support from our partners on a yearly basis. EPI communication strategy was developed and consensus building workshop done before two years. Due to budget constraints and the communication tools are not yet printed out and distributed to service level to utilize them.

3.1.2. NVS renewal request / Future plans and priorities

Surviving children for immunization in 2015 was 115,829 and surviving infants for vaccination in 2016 will be 118,333 which is 2.8% growth projection of each year. The country wants to get the vaccine presentation of DPT-HepB-Hep, one dose vial fully liquid formulation and Rotarix vaccine, one dose tube for two vaccination schedules. Based on this, the country didn't to make any change in vaccine presentation for both DPT-HepB-Hep and Rotarix vaccines. It the same as that of the previous years.

As stated in section 3.1.1 of JA, there were Roatix vaccine shortages in 2014. The country

was expecting to get the annual targets of eligible children born from January 2014 and the program has provided the vaccine based on the annual target starting from January 2014. But the procured and delivered Rota vaccine was calculated from the time of the introduction of the new vaccine that is only for new births starting from July, 2014 in which we were not aware of that. As consequences, there was stock out of the Rota vaccine for two weeks in November 2014 at national level. This was not the only the problem, the calculation of eligible children for Rota vaccination was not according the target and expected vaccination coverage for that year in association to other vaccines such as Penta 1st and 2nd dose which are provided in the same vaccination schedule. This also affects the calculation for required amount Rota vaccine doses for the targets. The baseline targets for Rota vaccination for consecutive years in section 4 of the APR 2014 was revised and are expecting that GAVI colleagues to revise the decision letter for Rota procurement in 2016 which is already made which is below the target.

3.2. Health systems strengthening (HSS) support

3.2.1. Grant performance and challenges

As far as HSS support is concerned, the grant performance rating was very good being realistic of what can be achieved with a total fund of $ 2.7 million grant over four years' time. The initial design of the project included too many activities with too little and fragmented budget allocations that required reprogramming as corrective measures to make it more focused and aligned to the EPI program.
Some of the main bottlenecks include, delay of disbursement for one year, resulting in delayed implementation of activities and loss of momentum. The allocated budget was not also adequate (scanty) and fragmented to meet the requirement for HSS.
One of the main challenges is the inability to vividly demonstrate achievements of outputs/outcomes that are attributable to GAVI/HSS funds due the fact that the level of funding was very small, albeit very useful in the final analysis.

3.2.2. Strategic focus of HSS grant

- Supply of photo voltaic solar systems to selected health facilities to improve their service delivery capabilities and sustain the cold chains systems;
- Support to training institutions for the continuous production of human resources for health and development of policy document and guidelines that included the NHP, HSSDP, emergency services as well as referral systems guidelines and community level guidelines are the key activities and strategic focus of the current GAVI/HSS grant.
- Provision of solar systems to facilities, to create conducive work environment for staff by making power supply available in the facilities is directly linked to strengthening the EPI program.
- Retention of staff by motivating them to work in remote areas that provide PHC services including immunizations and conducting outreach services also benefits the system in general and delivering vaccines to all with priority to the hard to reach areas

mitigating barriers to achieving better immunization outcomes.

- Production and dissemination for use of policy and plan documents is an overarching achievement benefiting every one and not least the EPI program.
- Building staff accommodation for health workers serving in remote facilities. This has contribution in staff retention which in turn strengthened health systems and led to more children get vaccinated.
- To build health workers capacity in EPI related data with acceptable degree of accuracy and timeliness a focusing on to the training of health workers in DQS.

3.2.3. Request for a new tranche, no-cost extension, re-allocation or reprogramming of HSS funding / Future HSS application plans

The current HSS support is ending this year, the last tranche of money being released in November 2014. Now the country is preparing to apply for a second round of funding support. The cut end date for application we are aiming to meet is at or before 8th, September 2015. An expression of interest (EOI) has already been presented to GAVI on May 15, 2015.

This obviously means that the country is not requesting for a new tranche of HSS funds this year, nor any no cost extension or any planned changes in terms of reallocation or reprogramming.

3.3. Graduation plan implementation *(if relevant)*

This is not applicable to Eritrea.

3.4. Financial management of all cash grants

The onetime grant GAVI financial support for the introduction of new vaccines (VIG) is managed under the director of finance of the Ministry of Health within the project unit along with other government budget. The budget is utilized in accordance to the activity line proposed and follows the rules and regulations of the Ministry of Finance of the State of the Government of Eritrea. For activities planned to be implemented at sub national level such as training of health workers, budget is allocated for each zoba and the financial head transfers the budget according the budget break down made by the program manager. After completing the work plan, the zonal medical office submits his activity report and liquidation is made on the utilized budget. Annual audit is done by the general audit section of the country managed under the President Office.

In the Eritrea, finical management has not been any major changes worth reporting in the context in which the GAVI/HSS grants were utilized. The management arrangements remained constant with the PMU managing finances, the HSS focal person coordinating

stakeholders as far as implementation of activities is concerned and compiling APR reports and the HSCC providing overall policy guidelines.

3.5. Recommended actions

Actions	Responsibility (government, WHO, UNICEF, civil society organisations, other partners, GAVI Secretariat)	Timeline	Potential financial resources needed and source(s) of funding
Expanding and strengthening of Sustainable Outreach Service (SOS) in less accessible geographical areas and nomadic population segments using RED/REC strategy in the vaccination services and increase immunization coverage in children before one year of age.	WHO and UNICEF and other partners to support the Gov.	2015-2018	GAVI, WHO and UNICEF
Integration and implementation of vaccination services with/during Child Health & Nutrition Week (CHNW), Global Vaccination Week (GVW) and other related opportunities to trace vaccine dose defaulters, increase timely vaccine dose uptake and increase community awareness to vaccinate a child, based on the recommended schedules.	WHO and UNICEF and other partners	2016-2020	GAVI, WHO and UNICEF
Technical and financial support of None Governmental Organization (NGOs) and Community Based Organization (CBO) as to enhance outreach vaccination service to achieve sustainable high immunization coverage among children age 0- 12 months.	EPI /HSS/ICC.	2016-2018	MOH, GAVI,WHO and UNICEF
Strengthen community participation by involving community health agents, village administrators and local Community Based Organization (CBO) during zonal and sub-zonal micro planning as to increase their participation and contribution on child vaccination program.	MOH, WHO, UNICEF, GAVI…	2016-2018	MOH, GAVI,WHO and UNICEF
Advocate to increase 10& of budget by the government for procurement of new and traditional vaccines.	MOH, WHO, UNICEF, GAVI…	2016	MOH, GAVI,WHO and UNICEF
Accelerate country progress and improving national capacity in building adequate immunization supply chain management system, including cold chain management	MoH, UNICEF, WHO, JICA, GAVI	2016-2018	MoH, UNICEF, WHO, JICA, GAVI

Strengthen to improve Data Quality Self-assessment at zoba level on quarterly basis.	MOH, WHO, UNICEF, GAVI…	2016-2018	MOH, GAVI,WHO and UNICEF
Coordinate immunization financing through the ICC to ensure adequate and appropriate donor support.	Support Gov. ICC.	2016-2020	MOH, GAVI,WHO and UNICEF

4. TECHNICAL ASSISTANCE

(MAXIMUM 1 PAGE)

4.1 Current areas of activities and agency responsibilities

The specific support provided in 2014 include:

- UNICEF and JICA provided financial and logistical support in the procurement of EPI vaccines and syringes, cold chain (cold rooms, refrigerators) for the whole country.
- WHO and UNICEF provided technical and financial support in the development and implementation of communication strategy and health promotion activities, to conduct integrated immunization activities with child health and Nutrition week, on basic / refresher training to EPI service providers,
- WHO provided financial and technical support for the implementation of Sustainable Outreach Service (SOS), to conduct polio SNID in selected high risk areas, training of service providers on Rota vaccine introduction, Implementation of DQS at zoba level on quarterly basis, conduct post introduction evaluation of MCV2 and rota vaccine.
- WHO provided financial support to print and disseminate updated IDSR generic guidelines, to conduct surveillance training and sensitization of health workers/clinicians on new vaccine surveillance , supplied specimen collection tools and reversal cold chain support to strengthen Hib, PBM, Rota virus sentinel sites in National Paediatrics Referral Hospital, and supported to the national Measles, PBM, Rota sentinel site.

4.2 Future needs

Technical and financial assistance is needed to implement the following activities:

- Accelerating country progress and improving national capacity in building adequate immunization supply chain management (iSCM) system.
- Supporting the Ministry of Health in developing quality Effective Vaccine Management (EVM) Improvement Plans (IPs) and adequately implementing EVM IPs,
- Ensuring availability and implementation of the standard operating procedures (SOPs) for good vaccine management practices, conducting temperature

monitoring and vaccine wastage studies, scaling up introduction `of 30-day Temperature Recorder (30 DTRs), identifying gaps in cold chain storage capacity and developing replenishment plans to ensure adequate cold chain capacity at all levels.

- Supporting sustainability of immunization services, through development of clear plan, costing and approaches for increasing the contribution from Government for procurement of vaccines.
- To provide technical assistance to improvement data quality, with focus on village and district levels and children from vulnerable families.
- To provide support in the increase of demand for immunization services, further improvement of health awareness, health promotion to ensure that immunization services are accessible and demanded by vulnerable.
- Procurement of photovoltaic solar system to boost the EPI program and health System
- To build health workers capacity in EPI related activates

5. ENDORSEMENT BY ICC, HSCC OR EQUIVALENT & ADDITIONAL COMMENTS

Endorsement of this JAR by the HSCC is provided as attachment with the minutes

Brief description of how the joint appraisal was endorsed by the relevant national coordination mechanism: The joint appraisal report was led and fully endorsed by the HSCC whose signatures of endorsement is attached as and annex.
Issues raised during debriefing of joint appraisal findings to national coordination mechanism: There were no substantive issues worth reporting during the debriefing of the joint appraisal findings to the HSCC.
Any additional comments from • Ministry of Health: • Partners: • GAVI Senior Country Manager:

6. ANNEXES

[Please include the following Annexes when submitting the report, and any others as necessary]

- **Annex A. Key data** (this will be provided by the GAVI Secretariat)

- **Annex B. Status of implementation of the key actions from the last joint appraisal and any additional High Level Review Panel (HLRP) recommendations:**

  This is the only Joint Appraisal exercise that we are conducting.

Key actions from the last appraisal or additional HLRP recommendations	**Current status of implementation**

- **Annex C. Description of joint appraisal process :** We feel that this has been adequately covered in section 1.4

Joint appraisal report write up team members

- Tewelde Yohannes MOH, Policy and Planning office
- Tedros Yehdego MoH, EPI Manager
- Eyob Tecle MOH, MPU Manager
- Tzeggai Beraki WHO, EPI focal person
- Semere Ghebrgiorgis WHO HSP, advisor
- Yodit Huruy UNICEF, Maternal Child Health Specialist.
- Cholpon Imanalieva UNICEF, Health and Nutrition Specialist

- **Annex D. HSS grant overview**

General information on the HSS grant							
1.1 HSS grant approval date			October 03, 2007				
1.2 Date of reprogramming approved by IRC, if any							
1.3 Total grant amount (US$)			2,778,000.00				
1.4 Grant duration			4 Years				
1.5 Implementation year			2010 – 2014				
(US$ in million)	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**
1.6 Grant approved as per Decision Letter			664,000	684,000	704,500	725,500	
1.7 Disbursement of tranches			664,000	694,250	704,500	=	715,250
1.8 Annual expenditure			225,486	474,192	570,045	435,660	647,962
1.9 Delays in implementation (yes/no), with reasons			Implementation delays occurred as result of delayed disbursement of funds from GAVI HQ.				
1.10 Previous HSS grants (duration and amount approved)			None				

1.11 List HSS grant objectives

Objective 1: To complete formulation of the National Health Policy and National Health Sector Development Plan by the end of 2010
Objective 2: To increase the production of new health workers by 7% annually so as to strengthen the capacity of human resource for health to deliver health services effectively and efficiently
Objective 3: To establish functional participatory management structures at all levels of the health systems by the end of 2010.
Objective 4: To strengthen Results Based Management (RBM) of health services to reflect strong evidence based decision making (EBDM) at all levels of the health system
Objective 5: To rehabilitate health facility infrastructure for provision of quality health services
Objective 6: To improve delivery of essential health care packages, including provision of integrated maternal and child health (MCH) services, at all levels of health care provision

1.12 Amount and scope of reprogramming (if relevant) N/A