

**ETHIOPIA**

**Health Millennium Development Goals Support Program-for-Results**

**Technical Assessment**

**October 30, 2012**

## ABBREVIATIONS AND ACRONYMS

AIDS	Acquired Immune Deficiency Syndrome	IDA	International Development Association
ART	Antiretroviral Treatment	IHP+	International Health Partnership
CDC	Center for Disease Control	JCCC	Joint Core Coordinating Committee
CPS	Country Partnership Strategy	JCF	Joint Consultative Forum
CSA	Central Statistical Agency	JFA	Joint Financing Arrangement
DHS	Demographic and Health Survey	KPI	Key Performance Indicators
DLI	Disbursement Linked Indicators	M & E	Monitoring & Evaluation
EDHS	Ethiopia Demographic Health Survey	MDG	Millennium Development Goal
EHNRI	Ethiopia Health and Nutrition Research Institute	MDGPF	Millennium Development Goal Performance Fund
FMHACA	Food, Medicine and Health Care Administration and Control Agency	MEFF	Medium Term Federal Expenditure Financing Framework
FMOH	Federal Ministry of Health	MOFED	Ministry of Finance and Economic Development
GAVI	Global Alliance for Vaccines and Immunization	NHA	National Health Account
GDP	Gross Domestic Product	PBS	Protection of Basic Services
GOE	Government of Ethiopia	PDO	Project Development Objective
GTP	Growth and Transformation Plan	PforR	Program-for-Results
HAPCO	HIV/AIDS Prevention and Control Office	PFSA	Pharmaceutical Fund and Supply Agency
HC	Health Center	RHB	Regional Health Bureau
HEP	Health Extension Program	SSA	Sub-Saharan Africa
HEW	Health Extension Worker	TB	Tuberculosis
HIV	Human Immunodeficiency Virus	UNICEF	United Nations Children's' Emergency Fund
HMIS	Health Management Information System	UNFPA	United Nations Population Fund
HRITF	Health Results Innovation Trust Fund	WHO	World Health Organization
HSDP	Health Sector Development Program	WorHO	Woreda Health Officers

# ETHIOPIA

## Health Millennium Development Goals Support Program-for-Results

### Table of Contents

I.	Context and Scope.....	4
A.	Background .....	4
B.	Program Scope .....	5
II.	Strategic relevance of the HSDP IV.....	7
III.	Soundness of Technical Approach.....	8
A.	Public Health Service Delivery .....	10
B.	Institutional Environment .....	14
C.	Costing of the HSDP IV .....	16
IV.	Assessment of Monitoring and Evaluation Arrangements.....	18
A.	Health Management Information System .....	18
B.	Household Surveys.....	19
C.	Health Facility Surveys .....	19
V.	The Expenditure Framework .....	21
A.	Planning and Budgeting Process .....	22
B.	The Budget classification system .....	23
C.	Trends in total health expenditure .....	23
D.	Level, distribution and execution of government expenditure .....	25
E.	Effectiveness and efficiency of public expenditure on Health.....	29
VI.	Program Economic Evaluation.....	29
VII.	Key Challenges and government response .....	31

## I. Context and Scope

1. This technical assessment has been carried out as a part of the preparation of the health Program-for-Results operation (PforR) in Ethiopia. As the proposed operation complements the Health Sector Development Program IV (HSDP IV), the focus of this assessment is on broader program covering strategic relevance, technical soundness, results framework, monitoring and evaluation systems, institutional arrangements and capacity, and governance structures. The assessment also covers the expenditure program and economic justification for the program. This assessment however cannot be considered as a comprehensive review of the Ethiopian health system and has primary focus on key areas relevant for the proposed PforR operation.

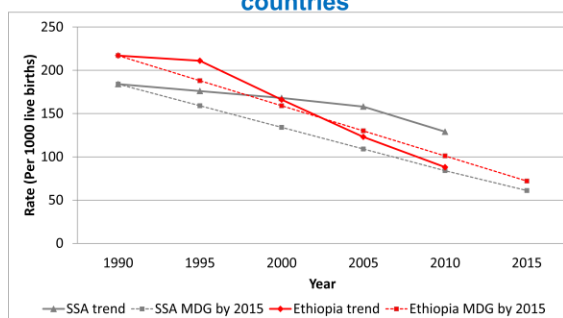
### A. Background

2. Over the past two decades, Ethiopia has made significant progress in key human development indicators. Primary school enrollments have quadrupled, child mortality has been cut in half, and the number of people with access to clean water has more than doubled. According to the 2011 Ethiopia Demographic and Health Survey (DHS), there is a rapid decrease in infant and under-five mortality (infant mortality has decreased by 23 percent, from 77 in 2005 to 59 deaths per 1,000 live births in 2011 and under-five mortality has decreased by 28 percent, from 123 to 88 per 1,000 live births). The joint UN MDG progress assessment suggests that Ethiopia is on track to reach Millennium Development Goals (MDGs) for child health, HIV/AIDS (Human Immunodeficiency Virus/ Acquired Immune Deficiency Syndrome), and malaria. This makes Ethiopia one of the few countries in Africa with a real chance of attaining the Health MDGs. Ethiopia also demonstrates that with strong national commitment, it is feasible to make progress towards MDGs even in resource constrained settings.

#### 3. Ethiopia is on track to achieve MDG 4

- Doubled life expectancy of children under 5 over past 20 years
- Lives of over half a million children saved in the past 5 years
- Nutrition status of children improved with stunting prevalence decreased by 12 % during the past decade.

**Figure 1. Trend of U5MR in Ethiopia and SSA countries**



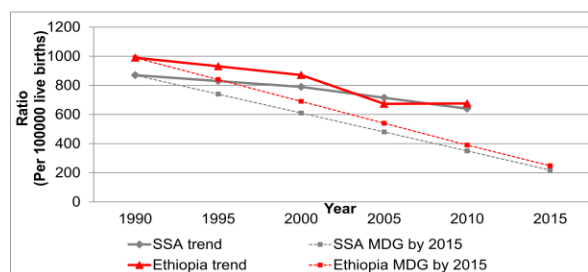
Source: "Challenges and perspectives in achieving MDGs in Ethiopia", Sandro Accorsi, presented at 13th World Congress on Public Health at Addis Ababa, April 24, 2012. The presentation slides were provided by Italian Cooperation.

#### 4. Ethiopia is on track to achieve MDG 6

- Low HIV prevalence and high ART (Antiretroviral Treatment) coverage with improvement in knowledge of HIV/AIDS and way to prevent it
- TB (Tuberculosis) Case detection is high and treatment success rates are high 83% (target 85%)
- The three-pronged approach for malaria control (early diagnosis and effective treatment, vector control and epidemic control) with high coverage and use of insecticide-treated nets has contributed to reduction in malaria incidence by half.

5. Despite these positive achievements, huge challenges still remain. One out of every 11 children born dies before the 5<sup>th</sup> birthday and the maternal mortality has not changed significantly during the past five years and remains at 676 per 100,000 live births. Nearly a third of deaths among women aged 15-40 years are due to maternal causes<sup>1</sup>. While there has been notable progress in coverage for evidence based interventions for child health and use of contraceptives, coverage for maternal health services such as antenatal care and skilled care during child birth remains low compared to the regional averages (Table 1). More importantly, Ethiopia is still among poorest countries in the world with a large and widely dispersed population. Therefore, there is need for considerable investments to step up its ongoing efforts to improve coverage for basic health and nutrition services to accelerate progress towards the health MDGs by 2015.

**Figure 2. Trend of MMR in Ethiopia and SSA countries**



Source: "Challenges and perspectives in achieving MDGs in Ethiopia", Sandro Accorsi, presented at 13th World Congress on Public Health at Addis Ababa, April 24, 2012. The presentation slides were provided by Italian Cooperation.

<b>Table 1. Progress of Key Health Indicators</b>			
<b>Key Indicator</b>	<b>2005 DHS</b>	<b>2011 DHS</b>	<b>Sub – Saharan Africa</b>
Infant Mortality Rate (per 1000 live births)	77	59	76*
Under Five Mortality (per 1000 live births)	123	88	121*
Pregnant women receiving antenatal care from a skilled provider or Health Extension Worker (%)	27.8%	42.6%	70%**
Deliveries attended by Skilled Providers (%)	5.7%	10.0%	46%**
Children receiving DPT3 by 12 months of age (%)	29.0%	34.7%	71%***
Children under 6 months exclusively breast fed	31.6%	52.0%	30%*****
Children under five stunted (% below 2 SD)	51.3%	44.4%	42%****
Contraceptive Prevalence Rate (any modern method) among currently married women	13.9%	27.3%	22%**
* Levels and Trends in Child Mortality Report 2011 Estimates developed by the UN inter-agency Group for Child Mortality Estimation			
** UN MDG Report 2011			
*** World Health Statistics 2011**** UN Data 2003-2009			
***** United Nations Children's' Emergency Fund (UNICEF) Progress for children 2007			

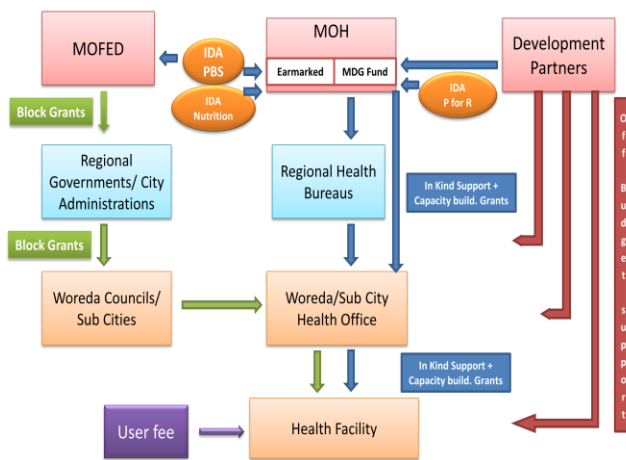
## **B. Program Scope**

6. The HSDP IV provides the overarching strategic framework for the health sector and reflects Government of Ethiopia's commitment to achieve the Health MDGs. It supports human capital development and remains the critical vehicle for achieving Ethiopia's Growth and Transformation Plan (GTP) goals related to health. HSDP IV envisions a strong "client centric" approach to improve access to

<sup>1</sup> Ethiopia Demographic and Health Survey 2011

health services; in particular, ensuring timeliness, quality, safety and responsiveness. The scope of the proposed PforR operation will be within the overarching framework provided by the HSDP IV.

**Figure 3. HSDP IV Financing Sources and Funds Flow**



7. As shown in Figure 3, the HSDP IV receives financing from several sources. The three main financing sources for HSDP IV are public finances which includes contributions made by donors through the budget; off-budget support from some donors; and private out of pocket expenditures. The two main channels for public financing of HSDP IV are: (a) the block grants transferred by the Federal Ministry of Finance and Economic Development (MOFED) to regional states which in turn release them to Woreda Councils to make sectoral allocations based on identified local priorities (Channel 1); (b) resources provided through the Ministry of Health

in kind to sub-national levels which include non-earmarked support from partners pooled under the MDG performance fund (MDGPF) as well as earmarked funds provided by some donors for specific program areas (Channel 2).

8. Specifically, support from the proposed PforR operation to the HDSP IV will be limited to activities supported by the MDGPF with exception to procurements exceeding high-value thresholds for PforR operations. Hitherto, the Bank has been supporting the HSDP IV through the PBS (Protection of Basic Services) and Nutrition Projects. The PBS through the block grants provides for about a third of the salary costs of the Health Extension Workers. In addition, PBS II has provided funding to the FMOH for supply of essential medical products. The nutrition project also provides support for targeted interventions. While the support from PBS through the block grants will continue under the proposed PBS III, the PforR operation will provide direct support to the FMOH (Federal Ministry of Health). To ensure better harmonization, such support will be channeled through a sub account to the “MDGPF”.

9. The proposed support from IDA (International Development Association) and Health Results Innovation Trust Fund (HRITF) grant through the MDGPF will be linked to achievement of agreed results that are under the direct control of the Government. However, it is important to note that these results will need coherent efforts through the entire sector and require inputs from activities financed by other financing sources such as block grants.

**Therefore, the scope of the technical assessment covers the entire HSDP IV.**

**Box 1. Health Sector Goal, Objectives and Targets of Growth and Transformation Plan**

- Improve the health of the population through provision of promotive, preventive, curative and rehabilitative health services.
- Improve Access to Health Service:* This objective includes availing of affordable health service to improve health of mothers, neonates, children, adolescent and youth, reduce the incidences and prevalence of communicable and non - communicable diseases and Improve hygiene and environmental health.
- Improve quality of health services:* It includes provision of health services as per the standard by health facilities at all levels.
- Major Targets
1. Decrease maternal mortality ratio
  2. Decrease under five mortality from
  3. Increase use of family planning services
  4. Increase Penta 3 immunization coverage
  5. Reduce incidence of HIV in adults and maintain the incidence at 2.4%
  6. Reduce Prevalence of malaria to below 0.7%

## II. Strategic relevance of the HSDP IV

10. The successive HSDPs started from 1996 provided the overarching strategic framework and direction for the sector. The Bank is one of the earliest supporters of HSDP and financed the HSDP I. From 2006, the HSDP programs are being supported by the Bank through the nation-wide program for PBS and subsequently the nutrition project with focus on community based interventions. The PBS follows a programmatic approach covering several sectors with strong focus on human development (education, health, water and agriculture) while strengthening local government capacity to improve accountability in managing public resources. The PBS is owned by the Government of Ethiopia and to a large extent uses country systems.

11. Ethiopia has effectively harmonized support from its development partners in the health sector and was the first country to sign International Health Partnership (IHP+) Compact. The IHP+ provided an opportunity for Ethiopia to mobilize and harmonize internal and external resources to support HSDP. A HSDP Harmonization Manual and Joint Financing Arrangement are in place to facilitate such harmonization.

12. Currently Ethiopia is implementing its fourth HSDP (HSDP IV) covering the period 2011-2015. The HSDP IV reflects the Ethiopian government's vision to achieve the health sector goals set under the GTP which are closely aligned with MDGs (Box 1). The scope of HSDP IV covers the entire health sector and all sources of financing. The HSDP IV has a stronger focus on results and quality of services giving focused attention among others to maternal and child health, HIV/AIDS and tuberculosis in order to achieve all health MDGs. Ethiopia's progress is important for achieving the regional and global health MDGs.

13. Thus, the HSDP is addressing the most important global as well as country aspirations for improving health outcomes. Supporting the HSDP IV through the PforR instrument focusing on results would further significantly help to improve the progress towards achievement of MDGs that need acceleration and complement the support from all partners including the Bank through the PBS.

14. The HSDP IV is fully aligned with the Country Partnership Strategy (CPS) 2012-17. The CPS is strongly anchored within the government's Growth and Transformation Plan and builds on what has been achieved so far and continues its support in areas where there is strong government ownership. The proposed operation is fully aligned with pillar two of the CPS which aims to enhance resilience and reduce vulnerabilities by improving delivery of social services and developing a comprehensive approach to social protection and risk management. An important outcome envisaged by the CPS under this pillar is increasing access to quality health and education services. The HSDP IV is also consistent with the foundation of good governance and state building envisaged by the CPS that focuses on improving public service performance management and responsiveness; enhancing space for citizen participation in development process; and enhancing public financial management, procurement, transparency and accountability. The key results of the proposed operation are fully aligned with CPS indicators and milestones proposed for the health sector. The PforR approach is consistent with the CPS commitment to continue with the practice of joint financing of projects wherever possible and use of country systems.

15. The HSDP IV is consistent with the Africa Regional Strategy's principles of strengthening public agencies to share resources more fairly and to reduce the number of shocks for the poor and limit the damage from those that do occur. The program gives special attention to the underserved populations in four regions that need special attention and health financing reforms towards universal health coverage. Providing better information on what citizens should expect from their governments, as well as mobilizing the communities to demand for health services is an important theme of the program. The Bank's Health Nutrition and Population Strategy of 2007 makes a strong case for sharpening the focus on results as envisaged by the HSDP IV.

### **III. Soundness of Technical Approach**

16. The HSDP IV has many of the critical building blocks required for a program that can deliver results. These include:

- Highest level political commitment to achieve health MDGs;
- A technically sound and costed strategic plan well aligned with Ethiopia's Growth and Transition Plan and MDGs;
- Clearly defined and costed set of evidence-based interventions supported by a results framework with multi-year financing plan;
- Well established processes and tools for evidence-based planning and efficient use of resources on a sustained basis;
- Clearly defined governance structures involving key stakeholders; and
- Strong donor coordination and aid harmonization governed by the International Health Partnership+ (IHP+) compact, HSDP harmonization manual, and Joint Financing Arrangement .

17. Considering the challenges in delivering health services in low resource settings, the Government of Ethiopia focused on effective delivery of basic health services and improving health behaviors at household levels through the Health Extension Program (HEP). Each health post staffed by two Health Extension Workers (HEWs) serves between 3000-5000 population offering 16 packages of health interventions categorized into four areas: family health, disease prevention and control, hygiene and environmental health and health promotion. The HEWs select model families with the help of village administration and train them to improve behaviors. The program has established criteria for household behavior improvements. The program has so far trained 12 million households and remains the main driver for the progress made by Ethiopia on Health MDG achievement. The PBS program complements the government's efforts by paying part of salaries of the HEWs.

18. Past experiences have demonstrated that they did help the country to make steady improvements in the health outcomes. The key strategic interventions envisaged by the HSDP IV are quite relevant for the country context and give priority attention to address the challenges of equitable access, quality of services, human resource availability and commodity security along with demand side interventions of community mobilization and gender mainstreaming.

19. Specific strategies include: (a) Expanding the HEP to urban and pastoralist communities and improving quality in the rural areas; (b) Putting in place comprehensive continuous quality improvement system; (c) Scaling-up of civil service reform to enhance leadership at all levels of the system and build



implementation capacities; (d) Special attention to programs that were not able achieve their targets; (e) Human resource development and motivational strategies to address the gaps in availability and skill mix; (f) Health infrastructure development with focus on enabling selected health centers to provide emergency surgical and comprehensive emergency obstetric care, logistic hubs for effective storage and distribution of pharmaceuticals and information and communication technology infrastructure; (g) Special attention to four regions facing unique challenges in service delivery and health systems development; (h) Raising community awareness and training health professionals on health effects of climate change working in collaboration with the environmental protection agency, and (i) Gender mainstreaming to increase the use of health services by women.

20. The evidence on the ground clearly suggests that significant contributions have been made by policies and strategies used by Ethiopia in making progress towards child health and disease control MDGs through successive HSDPs (Table 1). The strategies being implemented by HSDP IV are evidence based and are highly relevant for developing countries to improve health outcomes in a resource constrained setting. The HSDP IV envisages addressing the key gaps in health systems to deliver essential health services to improve the coverage for evidence based interventions giving attention to quality and reducing inequities.

<b>Table 2. Results Chain of HSDP IV</b>				
<b>Priority area</b>	<b>Impact</b>	<b>Outcomes</b>	<b>Strategic interventions</b>	<b>Service delivery norms</b>
Maternal and New born health	Maternal Mortality Ratio: 267 per 100,000 live births	<ul style="list-style-type: none"> <li>Contraceptive Prevalence Rate: 66%</li> <li>Deliveries attended by skilled birth attendants: 62%</li> </ul>	<ul style="list-style-type: none"> <li>Health Extension Program</li> <li>Health development army</li> <li>Supply chain management</li> <li>Regulatory systems</li> <li>Harmonization and alignment</li> <li>Health care financing</li> <li>Human resource development</li> <li>Health information systems</li> <li>Continuous quality improvement program</li> <li>Referral systems</li> </ul>	<ul style="list-style-type: none"> <li>One Health Post for 3,000- 5,000 population</li> <li>One Health Center for 15,000- 25,000 population</li> <li>One Primary Hospital for 60,000-100,000 population</li> <li>One General Hospital for 1,000,000- 1,500,000 population</li> <li>One Specialty Hospital for 3,500,000- 5,000,000 population</li> </ul>
Child Health	Under 5 mortality 68 per 1000 live births	<ul style="list-style-type: none"> <li>Fully immunized: 90%</li> <li>Pneumonia treatment: 81%</li> </ul>		
HIV/AIDS	HIV incidence 0.14	<ul style="list-style-type: none"> <li>Persons on Anti Retroviral Treatment: 486,966</li> <li>Prevention of Mother to Child Transmission: 77%</li> </ul>		
TB	Mortality for all forms of TB: 20 per 100,000 population	<ul style="list-style-type: none"> <li>TB case detection rate: 75%</li> </ul>		
Malaria	Malaria Incidence (laboratory confirmed) <5 per 1000 population	<ul style="list-style-type: none"> <li>Pregnant women who slept under the LLIN the previous night: 86%</li> </ul>		
Nutrition	Stunting prevalence 30%			

21. The HSDP IV has a well-defined results chain linking the inputs to the outcomes envisaged and how these outcomes contribute to the MDGs and GTP results (Table 2). The proposed PforR operation will contribute to these outcomes by joining other key partners supporting the MDGPF, which addresses specific gaps in priority program areas (mostly maternal and child health) and health systems. It uses more modest targets for disbursement based on the past trends observed within the country and other

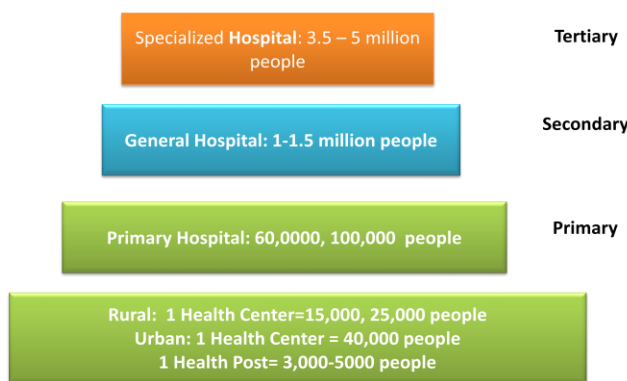
developing countries<sup>2</sup> and focuses on indicators that under the direct control of the Government following the PforR principles.

22. The real challenge ahead for Ethiopia is making progress towards the maternal health MDG. The HSDP IV critically analyzed the challenges and gaps in HSDP III in delivering maternal, neonatal, child and adolescent health services and proposed strategies and actions that have a strong evidence base to improve maternal health outcomes. Summary of this analysis is available in the section of public service delivery that follows.

## A. Public Health Service Delivery

23. Ethiopia has a three tier public health service delivery system as shown in Figure 4. The primary level covers 60,000 to 100,000 people each, consisting of a primary hospital, health centers (one for 15,000-25,000 population) and their satellite health posts (one for 3,000 to 5,000 population). The secondary level has a general hospital covering 1 -1.5 million people while the tertiary level provides specialized hospital catering to 3.5-5 million population. There are 277 private not-for-profit clinics and 1,788 private-for-profit clinics in the country. The total hospital beds are 13,992 which provides 1.9 beds per 10,000 population which is much lower than the average for Sub-Saharan Africa (SSA) (9 beds per 10,000) and global level (27 beds per 10,000).

Figure 4. Three Tier Public Health System in Ethiopia



24. Ethiopia is on track to achieve the MDGs for child health and disease control programs. The real challenge ahead is in making progress towards maternal health MDG which will also impact further gains in child health MDG as new born deaths now count a major share of infant deaths. The HSDP IV critically analyzed the challenges and gaps in HSPIII in delivering maternal, neonatal, child and adolescent health services (Annex 2 of HSDP IV, Page 95). A summary of this analysis is presented in Table 3. Similar systematic analysis was undertaken for disease prevention and control, Nutrition, health extension program, other health systems issues.

25. Using the UN inter-agency tool (The Marginal Budgeting for Bottlenecks) the HSDP IV program has undertaken comprehensive analysis of systemic bottlenecks to identify possible causes and potential solutions (Annex 3 of HSDP IV). This analysis covers three distinct types of services: (a) family oriented community based services; (b) population-oriented schedulable services and (c) individual oriented clinical services. Table 4 lists some of the operational problems and strategies proposed by HSDP IV to address such problems. The identified bottlenecks are common in most developing countries. However, solutions need to be responsive to local needs. Considering the wide variation in needs, capacities and demand for health services within Ethiopia these solutions need to be tailor made.

<sup>2</sup> A study conducted by the World Bank reviewed global data on the annual rate of change of selected indicators. It shows that the global average of annual rates of change (1988-2008) is 0.9% for contraceptive prevalence rate, 1.2% for antenatal care (at least one visit), 1.2% for skilled birth attendance and 2.0% for DPT3 coverage. The details of this study can be found from "Anessa Arur, Rianna Mohammed, Eduard Bos, Setting Targets in Health, Nutrition and Population Projects, January 2011",

**Table 3. Evidence Based Strategies for achieving Maternal Health MDG**

Challenges	Opportunities	Strategies
<ul style="list-style-type: none"> <li>• Skilled delivery remains low in all regions</li> <li>• Health centers are not providing round the clock services due to supply side constraints such as shortage, high turnover and skill gap of midwives at health center, non-availability of equipment and supplies</li> <li>• Poor access to Basic and Emergency Obstetric care remains a major challenge for saving the lives of pregnant women with complications due to weak referral systems, lack of skilled surgeons/obstetricians and anesthesiologists and blood banking/transfusion.</li> <li>• Demand side barriers such as cultural issues and limitations due to physical and financial access to health services also limit the use of safe motherhood and family planning services</li> </ul>	<p>Strong political commitment to improve the delivery of evidence based maternal and reproductive health services through:</p> <ul style="list-style-type: none"> <li>• upgrading of health centers to primary hospitals to improve access to skilled delivery and emergency obstetric care</li> <li>• accelerated midwifery training, training of HEWs on clean and safe delivery and efforts to ensure availability of FP commodities</li> <li>• strengthening referral services through provision of ambulances</li> <li>• improving access to safe abortion services through Health Centers (HC)</li> </ul>	<ul style="list-style-type: none"> <li>• Provide round the clock delivery services by all health centers and CEmOC services by all primary hospitals</li> <li>• Accelerate the expansion of health centers that can provide BEmOC</li> <li>• Continue to support the accelerated midwifery training and initiate in-service trainings</li> <li>• Train health officer in emergency obstetric and surgical care</li> <li>• Develop retention mechanisms for skilled staff especially midwives, obstetricians and</li> <li>• Scale up the competency training for HEWs to provide clean and safe delivery including essential newborn care</li> <li>• Enhance the efforts of community mobilization to generate demand for facility based deliveries</li> <li>• Deploy female HEWs in pastoralist communities</li> <li>• Introduce maternal death audits at the community and household levels</li> </ul>

**Table 4. Bottlenecks Identified by UN Inter-agency Tool and Proposed Operational Strategies under HSDP IV to Address Them**

Major systemic bottleneck	Possible cause	Proposed operational strategy by HDSP IV
<p><u>Family Oriented community based services:</u> Availability and capacity of HEWs and essential commodities</p>	<ul style="list-style-type: none"> <li>• Inadequate capacity of HEWs</li> <li>• Attrition rate due to low motivation</li> <li>• Inadequate supply and stock out of essential commodities especially ORS,</li> </ul>	<ul style="list-style-type: none"> <li>• Integrated refresher training of HEW</li> <li>• Strengthened supportive supervision</li> <li>• Rewarding performance through recognition and providing opportunities for career growth</li> <li>• Strengthened supply chain management including social marketing</li> </ul>
<p><u>Population oriented schedulable services:</u> Availability and capacity of health workers, accessibility of services and supply of essential commodities. Poor demand for services.</p>	<ul style="list-style-type: none"> <li>• Inadequate/inaccessible functional primary health facilities</li> <li>• Poor quality of services</li> <li>• Inadequate integration of PMTCT series</li> <li>• Stock-out of supplies</li> <li>• Shortage of skilled providers</li> <li>• Poor demand for services due to cultural factors especially status of women, and geographic barriers</li> </ul>	<ul style="list-style-type: none"> <li>• Expanding the network of functional health facilities</li> <li>• Pre-service and in service training for providers</li> <li>• Continuous quality improvement</li> <li>• Expansion and integrated delivery of PMTCT with Antenatal care at health centers</li> <li>• Social mobilization involving women and traditional leaders</li> <li>• Catch-up campaigns to enhance coverage</li> </ul>
<p><u>Individual oriented clinical services:</u></p>	<ul style="list-style-type: none"> <li>• Inadequate number of trained midwives.</li> </ul>	<ul style="list-style-type: none"> <li>• Increased pre-service and in-service training in midwifery</li> </ul>

<p>Availability of and capacity of health workers, accessibility of services and low utilization.</p>	<ul style="list-style-type: none"> <li>• High turnover of trained professions/poor motivation</li> <li>• Lack of access to water supply</li> <li>• Weak diagnostic services</li> <li>• Weak referral linkages</li> <li>• Poor adherence to algorithms</li> </ul>	<ul style="list-style-type: none"> <li>• Introduction of motivation schemes rewards for performance to motivate and retain health staff</li> <li>• Priority attention to making health centers functional with all critical inputs</li> <li>• Expanding provision of IMNCI and diagnostic services to all health centers</li> <li>• Strengthen procurement and supply chain management</li> </ul>
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### Health Human Resources

26. The shortage of human resources for health is well recognized in Sub-Saharan Africa and Ethiopia also faces the same challenge in its efforts to achieve MDGs. The Physician population ratio in 2009 stood at one for 36,158 which is quite low compared to World Health Organization (WHO) standard of 1for10,000 population. The nurse population ratio stood at one for 20,109 in 2009<sup>3</sup>. Ethiopia has given priority attention to addressing the human resource shortages in the health sector, which contributed to a steep increase in the number of health professionals in the country. The country now has nearly 34,000 health extension workers, health officers increased four-fold (from 700 to 3,702), and the number of nurses nearly doubled (15,000 to 29,500) in recent years. There has been a notable increase in the number of health staff training institutions with 14 universities and 23 regional health science colleges offering health worker’s training. A new physician training approach using an integrated curriculum was proposed in 13 medical schools.

27. However, overall shortage, uneven distribution, rapid turnover and shortage of providers with skills for priority maternal and new born services remain major challenges. The health workforce density (0.84 per 1000 people) is very low compared to the WHO recommendation of 2.3 per1000 that ensures adequate coverage for essential health services. Such shortages are more acute for medical doctors, midwives, nurses and specialists, especially obstetricians and anesthetists. Further, health staff, particularly doctors, is unevenly distributed favoring urban areas than rural and pastoral areas. For example, due to the unavailability of specialists, the Afar region could not operate even one comprehensive emergency obstetric and new born care services. Competencies of health officers and nurses to offer basic emergency obstetric care services are low and nearly two-thirds of medical doctors lack skills to offer emergency obstetric care.

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<sup>3</sup> HSDP IV Program Document FMOH

<b>Region</b>	<b>Population</b>	<b>Physicians</b>	<b>Health officers</b>	<b>Nurses</b>	<b>Midwives</b>	<b>HEWs</b>
Afar	1,473,863	98,258	50,823	7,967	–	3,930
Oromia	28,756,503	76,075	64,189	5,706	100,197	2,234
Somalia	4,672,984	65,817	389,415	14,882	103,844	4,248
SNNPR	15,927,649	65,817	72,398	4,002	50,404	2,126
Ben-Gumuz	711,702	59,309	16,945	1,575	19,235	1,426
Amhara	17,804,309	58,567	41,024	4,698	83,983	2,775
Tigray	4,532,875	44,880	24,111	1,944	24,502	3,600
Gambella	332,599	25,585	25,585	3,655	83,150	728
Dire Dawa	360,183	6,796	18,957	1,324	18,009	4,867
Harari	193,002	6,655	6,226	699	6,655	6,031
Addis Ababa	2,854,462	3,056	16,791	845	11,699	–
<b>National</b>	<b>77,812,236</b>	<b>36,158</b>	<b>48,451</b>	<b>3,870</b>	<b>56,427</b>	<b>2,545</b>

*Source: FMOH 2009/10*

28. The FMOH is using several strategies to motivate and retain health staff. These include: (a) Mandatory public service after graduation; (b) Financial incentives for highly critical staff such as housing, salary top-ups; (c) Training opportunities for those working in rural and pastoral areas. Skills gaps are being addressed through competency based training in midwifery and introduction of new training in emergency obstetric and surgical care for health officers.

#### Health Products and Supply Chain

29. Timely procurement and distribution of health products is critical for delivery of health services. In Ethiopia, over three-fourths of pharmaceuticals are imported either through procurement or through donations. The health sector procurement used to be fragmented with procurement done by various FMOH units and independent agencies. Duplication of effort and inefficiencies resulted in frequent stock-out of pharmaceuticals and wastage. Ethiopia developed a comprehensive Logistic Master plan in 2006 to ensure uninterrupted supply of quality essential health products at affordable prices and promotion of their rational use. The Pharmaceutical Fund and Supply Agency (PFSA) was established to manage the system through operating a revolving drug fund, several program funds (including MDGPF) and supply chain management. With support from various partners the PFSA has established 24 regional hubs through leasing, obtained necessary logistic equipment and trucks for distribution of medical products and equipment. In addition, 12 new warehouses are being built and 5 more are being expanded. PFSA charges about 6% handling charges for distribution of program commodities and equipment.

30. The Joint Review Mission (JRM) 2011 noted that the PFSA was able to meet 98% of its planned target for procurement. However, health facilities still report stock-out of essential commodities especially Oral Rehydration Salt, antibiotics, test kits and surgical supplies. The main reasons attributed for this are: inadequate financing of revolving drug fund, poor forecasting, delays in shipment etc. More importantly high turnover of experienced staff in PFSA, especially in its branch offices, remains a challenge.

31. To address these constraints, the government has started training health facilities in storage, rational use and ordering and 200 facilities are being developed as model facilities to demonstrate these

practices. A health commodities management information system has been introduced in five branches of PFSA and 70 health facilities. Drug and therapeutic committees have been instituted in 474 facilities.

## B. Institutional Environment

32. Ethiopia follows a decentralized federal structure of administration and the Constitution provides for shared responsibility for health policy making, regulation and service delivery between the FMOH, Regional Health Bureaus (RHBs) and Woreda Health Offices (WorHOs). Proclamation No. 475/1995 of Federal Democratic Republic of Ethiopia defines the powers and duties of executive agencies. The main responsibilities of the FMOH include national health policy formulation, expansion of health services, establishment and operation of national referral hospitals and national level study and research centers, determining standards and operational protocols, regulation of health services and professional education in public health, and prevention, control and eradication of communicable diseases.

33. The FMOH has recently been restructured under the nationwide health sector reform. There are three general directorates and eleven directorates under the FMOH. The general directorates are: (a) Health Promotion and Disease Prevention that has three Health Extension Directorates); (b) Policy, Planning and Financing General Directorate that has three directorates and (c) Office of the Minister. The directorates are: Agrarian Health Extension; Pastoralist Health Extension, Urban Health Extension; Policy, planning and M&E; Financial Resource Mobilization; Finance; Audit and Compliance; Human Resource; Medical Services; Public Relations and Health Infrastructure.

34. The Policy, Planning and Financing General Directorate is in charge of strategic and annual planning, resource mobilization, donor coordination and monitoring and evaluation through Health Management Information Systems (HMIS) and Joint Review Missions. The three directorates of the Health Extension Program are responsible for coordinating and supporting the HEP in their respective regions. The Medical service Directorate coordinates development of standards for curative care and monitoring their compliance by hospitals and health centers.

35. There are four authorized agencies under the FMOH with specific mandates and they are appointed by the Prime Minister and report to both FMOH and the MOFED. These include

- *The Food, Medicine and Health Care Administration and Control Agency (FMHACA)* responsible for safety and quality of foods and medicines, licensing and inspection of health professionals, pharmaceuticals, food establishments and health institutions;
- *The HIV/AIDS Prevention and Control Office (HAPCO)* focusing on improving the knowledge, attitude, behavior and practices related to prevention and control of HIV/AIDS and healthy lifestyles;
- *The Ethiopian Health Nutrition Research Institute (EHNRI)* conducting public health and nutrition research and studies contributing to improving the health of the population, as well as monitoring and managing public health emergencies;
- *The Pharmaceutical Fund and Supply Agency* responsible for procurement and distribution of safe and affordable essential medicines, medical supplies and equipment including the supplies for the priority national programs and operation of drug revolving fund.



36. The FMOH also supports regions in systems development and designing health sector programs and plans which are aligned with national plans and goals. The FMOH mobilizes additional resources to improve service delivery and creates appropriate platforms for mutual accountability, information flow and efficient use of resources.

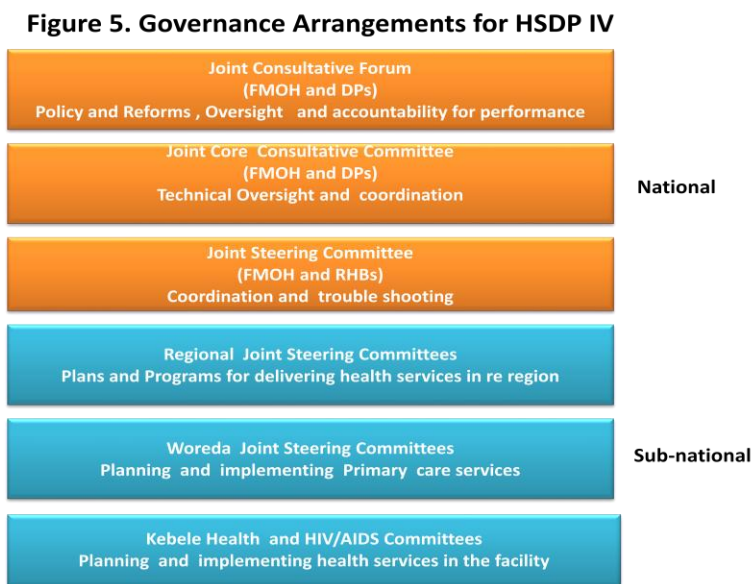
37. The RHBs are responsible for plans and programs for people of their region to deliver health services based on national health policy, health service delivery within the region including all types of hospitals, licensing health facilities and ensure adequate supply of safe and affordable medicines and supplies. The WorHOs manage and coordinate the primary health care units (health centers and health posts) and responsible for planning, financing and monitoring the health progress and service delivery within the Woreda.

38. The Woreda based national planning introduced by FMOH and RHBs in 2007/08 helps in evidence based and results oriented bottoms up planning to achieve the MDG goals based on the indicative resource envelope provided by FMOH and RHBs. These plans are aggregated at the regional level and final compilation in to the national plan is done by FMOH.

Governance Structures and Institutional Capacity:

39. There are well established governance structures at different levels of the Ethiopian health system to effectively plan and use these resources (Figure 5).

40. There is strong recognition that over the years the health systems in most developing countries have become increasingly complex due to changes in international aid architecture and responding to ad hoc needs resulting in vertical program and duplication. The HSDP IV aims to rationalize these structures and improve overall governance in the health sector to ensure effective harmonization as well as better accountability. The IHP+ also provides strong impetus for this. The HSDP Harmonization Manual describes the governance structures.



41. The Joint Consultative Forum (JCF) chaired by the Minister of Health and co-chaired by the lead partner in the sector is the highest body for dialogue on sector policy and reform issues between Government of Ethiopia (GOE), its partners and wider stakeholders. The JCF will also oversees the allocation, implementation and use of the MDG performance fund, PBS, Global Alliance for Vaccines and Immunization (GAVI) and other donor supported projects ensuring effective linkages between support provided by different partners, regional bureaus and other sectors.

42. The Joint Core Coordinating Committee (JCCC) chaired by the Director General of Policy, Plan and Finance General Directorate supported by the Directorate is the technical arm for the JCF. The JCCC will provide operational oversight and monitor the implementation of all pooled and non-pooled funds provided by partners to the health sector. The JCCC is also responsible for organizing and coordinating monitoring and evaluation of the program as well as facilitating relevant meetings and missions including technical assignments recommended by JCF. The Regional Health Bureaus are engaged through the FMOH-RHB Joint Steering Committee . The program based Technical Working Groups focus on addressing specific technical issues in priority national programs.

43. Regions, Zones and Woredas respectively are expected to establish Joint Steering Committees which meet quarterly to discuss and address implementation bottlenecks. Each Kebele (Village) is expected to have one health and HIV/AIDS committee which meets once every month. Most Regions have established Governing Boards for health centers and hospitals that include representatives of community. These Boards meet once every quarter to discuss and endorse plans as well as monitor performance.

44. There are strong institutional capacities at the Federal Level demonstrated by the effective use of evidence based policy making and focus on development and implementation of high impact interventions. The focus on improving access to such interventions predominantly targeting the community level through the HEW Program has immensely helped in making progress on MDGs for child health and disease control. Development of a network of Health Posts and Health Centers supported by the HEW to improve access to preventive and basic curative services as well as household behaviors was given attention during HSDP III.

45. However, the sub-national institutional arrangements are variable and the coordination mechanisms such as Joint Steering Committees at Woreda, Zone and Regional levels are not effective. There are no linkages between program based technical working groups with JCCC which is leading the overall technical dialogue. Due to high turnover, the facility Boards have not meet regularly resulting in delayed decisions.

### **C. Costing of the HSDP IV**

46. The HSDP IV used an evidence based costing and budgeting tool<sup>4</sup> to estimate resources needed for scaling up evidence-based high-impact interventions in terms of morbidity and mortality reduction towards achieving MDGs.

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<sup>4</sup> Marginal Budgeting for Bottlenecks is a tool developed by the World Bank, UNICEF and the National Ministries of Health from several countries



<b>Table 6. Estimated Resource Needs for HSDP IV under the Base Case Scenario (US\$ Million)</b>				
<b>Program Areas</b>		<b>Baseline 2009/10</b>	<b>Estimated resource needs</b>	
			<b>Annual</b>	<b>5 year</b>
<b>1. Leadership and Governance</b>		<b>33.85</b>	<b>272.452</b>	<b>1362.26</b>
1.1	Community Empowerment	31.93	6.78	159.65
1.2	M&E and Operational Research	27.77	7.36	138.85
1.3	System Strengthening & Capacity Development	212.75	19.71	1063.76
<b>2. Strengthening Service Delivery</b>		<b>626.12</b>	<b>838.94</b>	<b>4194.7</b>
2.1	Maternal-Newborn & RH-Adolescent Health	94.32	31.27	471.62
2.2	Child Health	45.14	25.06	225.7
2.3	Nutrition	21.65	6.38	108.27
2.4	Hygiene Environmental Health	31.84	7.87	159.21
2.5	Prevention and Control of Malaria	160.87	111.45	804.36
2.6	Prevention and Control of HIV/AIDS	233.59	276.25	1167.98
2.7	Prevention and Control of TB & Leprosy	141.51	152.72	707.53
2.8	Prevention and Control of Other Communicable Dis.	35.92	0.24	179.6
2.9	Prevention and Control of Non-Communicable Dis.	47.18	0.27	235.89
2.10	Public Health Emergency Management	7.19	0.45	35.97
2.11	Public Health/Nutrition Research & Quality Ass.	19.71	14.16	98.57
<b>3. Expansion and Strengthening of health infrastructure and resources</b>		<b>223.09</b>	<b>653.91</b>	<b>3269.54</b>
3.1	Expansion of PHC facilities	94.74	39.38	473.69
3.2	Hospital Infrastructure	226.97	30.11	1134.86
3.3	HR Salaries and Training	191.60	54.33	958.01
3.4	Pharmaceuticals and Medical Equipment	130.94	97.00	654.71
3.5	Health care Financing	9.65	2.17	48.27
<b>TOTAL</b>		<b>883.06</b>	<b>1765.3</b>	<b>8826.5</b>

*Source: Based on HSDP IV Program Document Page no 75 and Page 72*

47. The costing of the HSDP IV used two scenarios (base and best case) and the base case scenario focuses on achieving the MDGs while the best case scenario aims to achieve more than the MDG targets. The base-case scenario envisages using existing infrastructure and human resources to provide universal access to health centers with a back-up of primary hospitals providing emergency surgical and obstetric care. The best-case scenario envisages providing effective clinical care at all levels of the health system. It is estimated that the total budget required will be US\$ 8.8 billion and US\$ 10.8 billion respectively for the base and best case scenarios. This requires the current total base of US\$ 884 million (by both government and development partners) to annually (2009-10 as shown in the annex) increase by 9% for base case and 13.5% for best case scenarios. As shown in Table 6, the overall HSDP program budget is organized under three areas: 1. Leadership and Governance; 2. Strengthening Service Delivery; and 3. Expansion and strengthening health infrastructure and resources.

48. The model based approach estimates resources needs for achieving all the MDGs by 2015. The overall resource envelope that will be potentially available for the sector to improve the effectiveness of the health system in delivering these results needs to be assessed taking in to account all sources of health financing. The HSDP IV estimates that around US\$ 4.5 billion will be available for the health sector based on the estimated growth in the public expenditure and commitments made by the partners. This implies either a substantial financing gap needs to be filled during HSDP IV (4.3 billion) to successfully achieve all results by 2015, or it may take longer time to achieve the MDGs. It is also pertinent to note that these estimates do not include household expenditures on health contributing to over a third of total health expenditures.

49. The out of pocket expenditures primarily finance episodic curative care and not promotive and preventive care which have larger externalities. The out of pocket expenditures also will not finance critical infrastructure inputs required for health systems, regulation, quality control and effective risk pooling important for improving health outcomes. The Bank is already supporting nutrition program which successfully leveraged support from several other partners while the PBS will continue to support the health extension program through block grants. Recently GOE has provided about Birr 15 billion (US\$ 0.9 Billion) for creation of essential infrastructure to achieve the MDGs across the sectors. Despite these inputs, there will be financing gaps for the health systems strengthening. While the priority disease control programs seemed to have adequate financing with exception to malaria, the maternal-newborn, reproductive and adolescent health, child health, and nutrition programs require more resources.

50. Despite strong commitment to Ethiopia through IHP+, the donor support to the health sector still remains disease focused, unpredictable and fragmented. There are about 10 multilateral and 20 bilateral donors and over 50 international Non-governmental Organizations working in the health sector. Most of the external support (nearly 80%) is earmarked to specific diseases or areas which limits the flexibility of the GOE to strengthen health systems and priority health services. Further, reporting requirements by all donors are still to be harmonized resulting in increased transaction costs for the FMOH to meet donor specific needs.

## **IV. Assessment of Monitoring and Evaluation Arrangements**

### **A. Health Management Information System**

51. The FMOH introduced a new routine HMIS beginning in 2007. This ensured harmonized reporting for the country, with all Regions using the same HMIS reporting forms and standardized definitions for data items reported. The Regions provide aggregate information to the Federal level HMIS (F-HMIS) by facility type and ownership. Service statistics are reported quarterly and other facility program and resource information annually. The FMOH has identified 108 indicators that they will monitor using this information.

52. The FMOH has put in place a mechanism of semi-annual validation to improve the quality and reliability of the HMIS data. In addition to FMOH staff, academic institutions and technical partners (UNICEF and WHO) participate in the validation.

53. The 2011 HMIS Performance Assessment identified the following weaknesses which are relevant to using the routine HMIS for reporting on DLIs.

- Around 50% of HCs and 70% of Hospitals were using the new HMIS system. However, only 55% have complete source documents and there were regional variations.
- 5% of Woreda HOs, 13% of Zonal Health Desks, and 18% of RHBs had allocated budgets for M&E
- Computers for HMIS were available in 29% of HC and 80% of Hospitals; 56% of Woreda Health Offices, 75% of Zonal Health Divisions, and all RHBs.
- Data validity checking at the facility level following the HMIS guidelines (described as Lot Quality Assurance Sampling) is taking place routinely in 33% of HCs and 40% of Hospitals

while such validation is much lower at Woreda Health Offices and the Zonal Health Departments (20% and 13% respectively)

54. In addition, the Ethiopia Hospital Reform Program generates a quarterly report for 36 Key Performance Indicators (KPIs) for hospitals. The KPIs are the core set of indicators that form the foundation of the Hospital Performance Monitoring and Improvement Framework for Ethiopia covering service quality, client responsiveness and governance aspects. Hospital level reports on KPIs are submitted to the RHBs on a monthly basis, and the RHBs submit quarterly reports on the KPIs, by hospital, to the Medical Services Directorate in FMOH using Excel spreadsheets. This information is compiled into aggregate reports and then shared with the F-HMIS. There are plans to introduce KPIs for the health centers as well.

## B. Household Surveys

55. **Demographic Health Survey:** The DHS uses a standard methodology and results are generally regarded internationally as one of the most reliable measures of population based coverage information. The Central Statistical Agency (CSA), an entity independent of the FMOH, has conducted DHSs (nationally and regionally representative household surveys that provide demographic, health service utilization, and basic health status information) with technical support from ICF Macro. The most recent round was completed in 2011. It has been agreed that another DHS in 2015/2016 and for a mini-DHS (collecting a sub-set of the full DHS data) in 2013/2014 as a part of the HSDP IV mid-term review.

56. **Cluster survey for Immunization:** With funding and technical assistance from the Gates Foundation, WHO and UNICEF, and under the managerial lead of the Ethiopian Health and Nutrition Research Institute (EHNRI), the government is currently conducting a nation-wide cluster survey to provide current information on immunization coverage and to triangulate the coverage data from a variety of sources. This survey will also provide facility-level corroborating information on readiness to provide immunization services. The report of this survey is expected in October 2012 will provide baseline for immunization coverage.

57. **Other special surveys** are carried out on a needs basis. Recent surveys include the following:

- Ethiopian Population Based National TB Prevalence Survey. 2010, carried out by the FMOH/ EHNRI.
- Nutritional baseline (report was not reviewed), carried out by the FMOH/ EHNRI.
- Five-Year Global Fund Health Impact Evaluation: Main Final Report. September 2008, carried out by EHNRI and ICF Macro.

## C. Health Facility Surveys

58. There have been several topic-specific surveys using health facility level information. These are not routine surveys, but rather were carried out to provide information needed for specific program purposes. Those for which reports are available include:

- *Assessment of Emergency Obstetric and Newborn Care 2008*, carried out by the FMOH, UNICEF, WHO, and the Averting Maternal Death and Disability program at Columbia University, New York, USA.
- UNICEF is hoping to repeat this survey by linking with a planned 2013 United States Center for Disease Control (CDC) study that will evaluate maternal health interventions, combinations of interventions, and impact.
- *Ethiopia National Health Facility Survey 2005*, carried out by the FMOH/ HAPCO, Department of Community Health, Faculty of Medicine, Addis Ababa, the US CDC, Ethiopia Office, World Health Organization, and Engender Health. The results of the survey describe the basic characteristics of HIV/AIDS/TB and STI components of the supply of health services at the time that the survey was carried out.
- *Quantitative Service Delivery Survey In Health* - Ethiopia, December 2010, carried out by the Centre of Development Consulting, Addis Ababa, Ethiopia. This was an assessment of health facilities and services related to the PBS Project.
- *Five-Year Global Fund Health Impact Evaluation: Health Facility Report: 2008*, carried out by EHNRI and ICF Macro.
- *Commodity Tracking and Stock Management Study*. May 2011, carried out by FMOH and EHNRI. This study evaluated commodity logistics systems for vaccines, tracer drugs, and bed nets.

59. Despite of existing efforts, there are no systematic processes for assessing readiness to provide services in health facilities. In the future, this function may be systematized through the Regional Health and Health Related Services and Products Quality Control Authorities using FMHACA standards or the Balanced Score Card. A national partner for implementation needs to be identified. This can serve two purposes. First, to provide process data for estimating the error rate and second, to measure change in health facility readiness to provide priority maternal, newborn and child health services. A summary index for readiness to provide services will allow comparisons over a period of time, providing a context for changes in service statistics.

60. The CSA is independent of the FMOH and has the capacity with technical support for implementing a rapid health facility assessment to assess readiness. The agency has indicated, however, that they may not be able to participate in an annual health facility assessment exercise unless this is a high priority by the government. Given the other responsibilities and commitments of the CSA, it is highly unlikely for them to undertake such activity on annual basis.

61. Although the Ethiopian Health and Nutrition Research Institution reports to the FMOH, they are also quasi-independent. They have been the national implementing agency for multiple facility-based studies and, with strong technical support, the Institution should be able to provide unbiased results of acceptable quality on readiness to provide priority health services.

62. In addition, two nationally representative Health Facility Assessments are being discussed among donors and with the FMOH for 2013. The data elements and methods for their measurement can readily be folded into either of these surveys to provide truly independent validation of the results from an EHNRI implemented survey.

- The World Bank will be contracting for a baseline survey for PBS3. This survey will include a nationally representative sample of HCs and Health Posts.

- USAID and ICF Macro will be discussing interest in a Service Provision Assessment. This survey usually includes a nationally and regionally representative sample of facilities of all levels, and covers all basic maternal/newborn/child/ reproductive health services as well as HIV/AIDS, TB, and Malaria services.

63. Thus, there are multiple new and innovative activities ongoing within Ethiopia that aim to improve and strengthen the availability of reliable and valid data on health services. These include:

- Rolling out of new HMIS
- Institutionalization of semiannual HMIS data validation
- Introduction of new KPIs for hospitals covering wide range of process, quality and governance measures.
- Development of standard tools for integrated supportive supervision
- Monitoring the service quality by the Health and Health Related Services and Products Quality Control Authority

64. When above new initiatives are fully functional, they should contribute to increased accuracy and validity of health systems data. At this time, however, these systems are still evolving and will not be able to provide credible data on all process DLIs monitored under this PforR operation. Also, some of the proposed DLIs will require population based information while others need data from the health system. Therefore, the proposed results Monitoring & Evaluation arrangements for this PforR operation includes a combination of well-established population based surveys for population based information and rapid facility assessments for health systems data.

## V. The Expenditure Framework

65. As part of the expenditure framework assessment, a comprehensive review of the health expenditure patterns in Ethiopia during the period 2005/06 to 2010/11 (focusing on HSDPIII period: 2005/2006-2009/2010) was undertaken<sup>5</sup> and the key policy issues relevant for the proposed PforR operation are summarized. The Key policy messages from the expenditure analysis are:

- There is considerable increase in per capita total health spending from US\$ 5.6 in 1999/2000 to US\$ 16.9 in 2007/08. However, this is still less than half of the resource envelope recommended for delivering a basic package of health services and the average for low income countries in the region. Despite this, efficient use available resources helped Ethiopia to make significant progress towards attaining MDG 4 and 6.
- The external support for the health sector has grown six fold during this period (US\$ 0.9 to 6.3 per capita) while domestic spending increased by 80% (US\$ 1.9 to 3.4). Private spending significantly increased from US\$ 2.8 to 6.4 and remains an important source of health expenditure in Ethiopia.

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<sup>5</sup> Data source: audited MOFED account data from 2005 to 2011 at federal and 11 regions. For data available in these sources, one can refer to the section of “budget classification system”. Despite of frequent interactions with MOFED, the acquired data misses data for Afar region (2005, 2006), Somali region (2005, 2006, 2007, 2008), Harrari region (2010) and Gambella region (2010). Some of the analysis results at aggregate level may need some adjustment after missing data will be obtained from the government.

- Ethiopia has a well-established practice of planning and budgeting at the decentralized levels guided by the overall medium term financial forecasts made by the Federal government.
- Ethiopia has a strong budget classification system which enables tracking of expenditures by levels and broad expenditure categories including the source of financing. About 9% of the government budget is allocated for the health sector in 2010/11.
- The share of capital expenditure has steeply grown substantially during HSDPIII period, from 21 % (2005-06) to 70% (2009-10) due to much needed basic health infrastructure development consisting of health centers and primary hospitals to address the need for improving clinical services and referral care, especially for achieving MDG 5. However, a large part of the public expenditure on health (80%) at Woreda level is spent on recurring costs, mostly salaries.
- There is a wide difference in per capita public expenditures on health between the regions (US\$ 2.1 in Amhara to US\$ 10.3 in Harari) which could be due to higher unit costs of delivering health services to smaller and widely dispersed communities.
- Ethiopia fared better than other SSA countries in terms of efficient use of resources provided to the health sector. Only middle and high income countries in the region fared better than Ethiopia in terms of getting better life expectancy at birth for the expenditures incurred.

## A. Planning and Budgeting Process

66. **The five year health sector development program is implemented through the annual budgeting process.** This involves both bottom-up and top-down planning exercises. The bottom-up planning and budgeting: each Woreda Health Office engages partners and prepares evidence based plans and consolidated budget requests with targets aligned to national goals. Each Woreda takes in to consideration available financing for the fiscal year which includes the budget ceiling provided by the Woreda council, estimated in kind transfers from the FMOH (e.g the MDG Fund), and other resources at the Woreda level including user fees. The proposed budget will then be negotiated with the Woreda council, as part of the budget preparation and approval process (Box 2).

### Box 2: Sub-National Budgeting Process

#### Local planning prior to budget ceiling notification

- Communities at sub-kebele and kebele levels identify and prioritize projects based on local needs
- Kebele Council approves the draft Kebele need based plan
- Woreda Development Committee with the assistance of Woreda sector offices prepares draft need based Woreda plan taking into account the inputs provided in the Kebeles' plan
- Woreda cabinet appraise the draft need based Woreda plan and the Woreda council approves it

#### Local level Planning and budgeting after budget ceiling notification:

- Ministry of Financing and Economic Development (MOFED) notifies the indicative regional transfer to Bureau Finance and Economic Development (BOFEDs)
- BOFED notifies Woreda transfer to Woreda Finance and Economic Department (WOFEDs)
- WOFED makes budget call to the Woreda public bodies along with tentative budget guidelines
- Government development committee at Kebele level revise the need based plan and appraises the annual activities and projects as per the indicative budget
- Kebele cabinet and the kebele council approves the revised plans and budgets
- Woreda sector offices and Woreda Development Committee reviews the kebele plans & budgets and

*Source: Ethiopia Public Finance Review 2010, World Bank*



67. **The Medium Term Federal Expenditure Financing Framework (MEFF):** The top-down process follows the decentralized fiscal arrangement and involves the MOFED preparing the Medium Term Federal Government Finance Forecast<sup>6</sup> which is approved by the national Parliament with general purpose and specific purpose grants to regional states in accordance with the national equity formula<sup>7</sup>. The regional states subsequently establish the general purpose grants for Woredas and Woreda councils in turn provide sectoral ceilings. The general purpose and specific purpose grants include external loans and on-budget external grants. In addition to these grants there are other external resource flowing from the FMOH to the regions and woredas (e.g. MDG funds, vertical programs financed through external funds) mostly in the form of in-kind assistance and support for capacity building.

## B. The Budget classification system

68. **In Ethiopia, overall government budget and expenditures are organized into eleven categories** and allow tracking and analysis in multitude of ways. Within the broader budget categories, public bodies have discretion to code their programs, sub-agencies, sub-programs and projects in consultation with the MOFED. Specifically for health sector, both budget and expenditure are disaggregated by its type (capital and recurrent), for capital budget/expenditure, it is possible to track the source of funding (domestic, loan and assistance) and for recurrent budget/expenditure, it is possible to track whether it is for salary payment or operating expenses. For both capital and recurrent budget/expenditure, it is possible to track cost centers such as support and advisory, primary health care, hospital affairs and services, disease prevention and control, capacity building, and public health control. In addition, all budget/expenditure at regional level may be disaggregated by bureau versus Woreda.

69. **The budget classification system allows tracking of expenditures and provision of timely information on expenditure composition.** As a matter of fact, most of the results are based on the account data provided by MOFED and the data is now available with just one year lag. However, it is still unclear how the flow of external assistance may affect expenditure tracking, especially the off-budget external assistance fund. The FMOH has made efforts in mapping all resources including donor funds. A more comprehensive picture may be presented once this data is available from the Ministry.

## C. Trends in total health expenditure

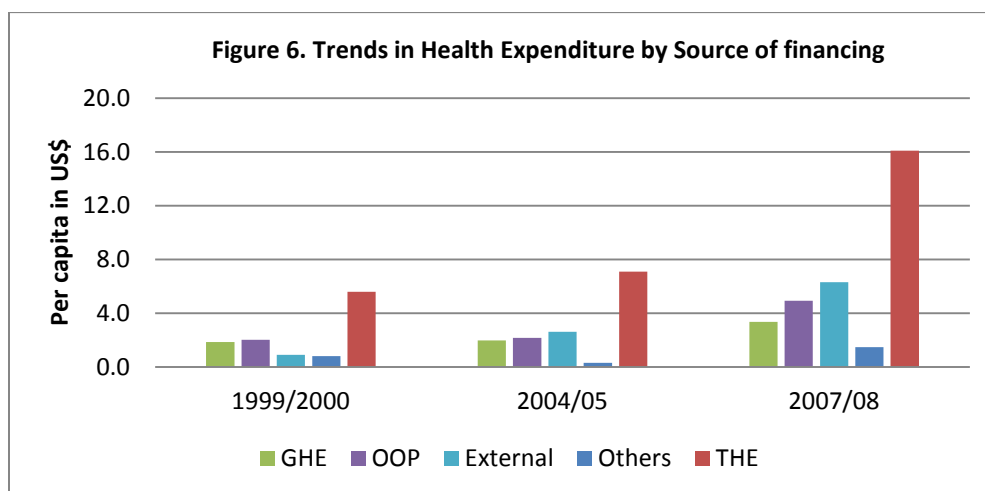
70. Total health expenditure in Ethiopia has steadily increased overtime. Four rounds of National Health Accounts (NHA) show a continued increase in total health expenditure over the years. Per capita spending on health increased from US\$5.6 to US\$16.09 between 1999/00 and 2007/08 (Figure 6). However, spending on health as a proportion of GDP has remained relatively flat around 5 percent for the same time period. As detailed in the fourth round NHA for the year 2007/08, the three major financing sources for health in Ethiopia are: i) external assistance 39 percent, ii) out-of-pocket expenditure 37 percent, and iii) government budget 21 percent. Both public and private financing has increased over the years.

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<sup>6</sup> The MEFF is a three years rolling multiyear budgeting tool. The principles are similar to MTEF. However, the MEFF provides sectoral projection for the Federal ministries only. It does not provide aggregated sectoral projections. Sectoral allocations will only be known at the Woreda level. The inter-governmental transfer from federal to regions and from regions to Woredas is in block grants.

<sup>7</sup> Detailed description of the inter-governmental fiscal transfer including the equity formula and its evolution are attached as Annex A in this report.

- Public spending increased faster, mostly due to a sharp increase of donor funding. Between 1999/00 and 2007/08, public spending on health more than tripled from per capita US\$2.8 to US\$9.7. External financing per capita increased faster by over six fold from US\$0.9 to US\$6.3 per capita. Domestic public spending increased by 80 percent from US\$1.9 to US\$3.4 per capita.

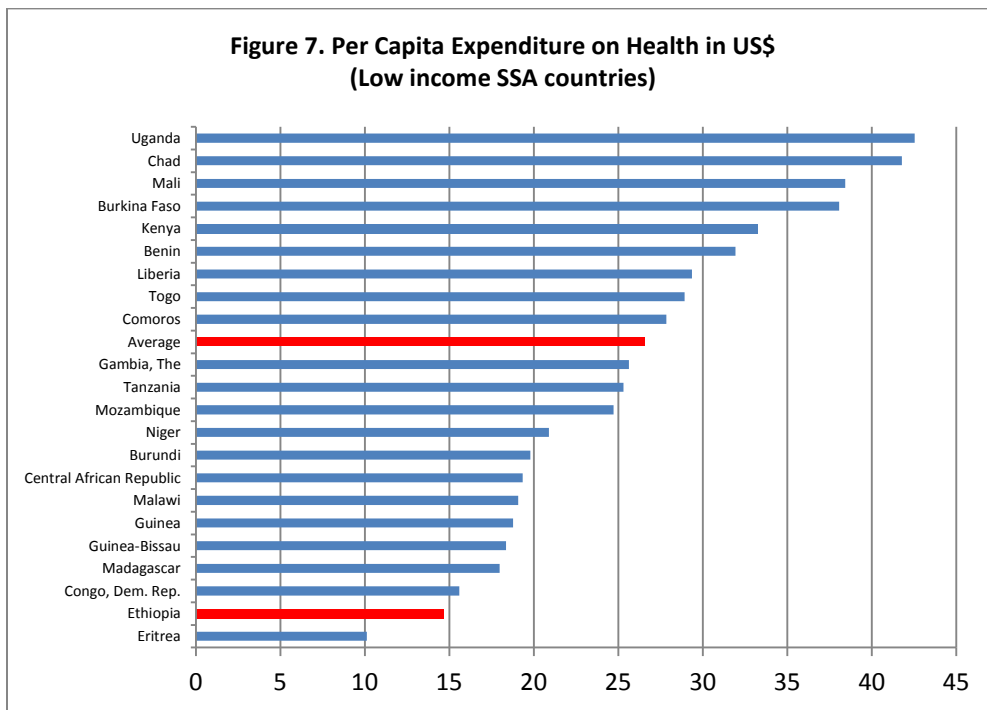


*Source: Second, Third and Fourth Round National Health Accounts*

- Private spending on health increased significantly over the period. Between 1999/00 and 2007/08, private spending more than doubled from US\$2.8 to US\$6.4. Out-of-pocket spending remains a major source of finance accounting for a third of the total health spending and increased in per capita from US\$2.0 in 1999/00 to US\$4.9 in 2007/08.
- The overall financing mix between public and private has shifted from fifty-fifty in 1999/00 to a sixty-forty ratio in 2007/08 with increased predominance of the public financing.

71. Despite the considerable increase, total health expenditure in Ethiopia remains low compared to other low income SSA countries. The per capita spending of US\$ 14.68 in 2009 is less than 60 percent the average of the low income countries in SSA (US\$ 25.6) as shown in Figure 7. This reflects: i) the low resource base of Ethiopia. GDP has been growing rapidly over the last five years, but remains one of the lowest in the Africa region at about US\$400 per capita. ii) a lower than average budget allocation to health, compared to SSA countries. During the last ten years, the Government allocation to health has increased from 4 percent to 8 percent. iii) a relatively lower level of external aid than in other SSA countries.





Source: World Bank HNP Databank, 2010

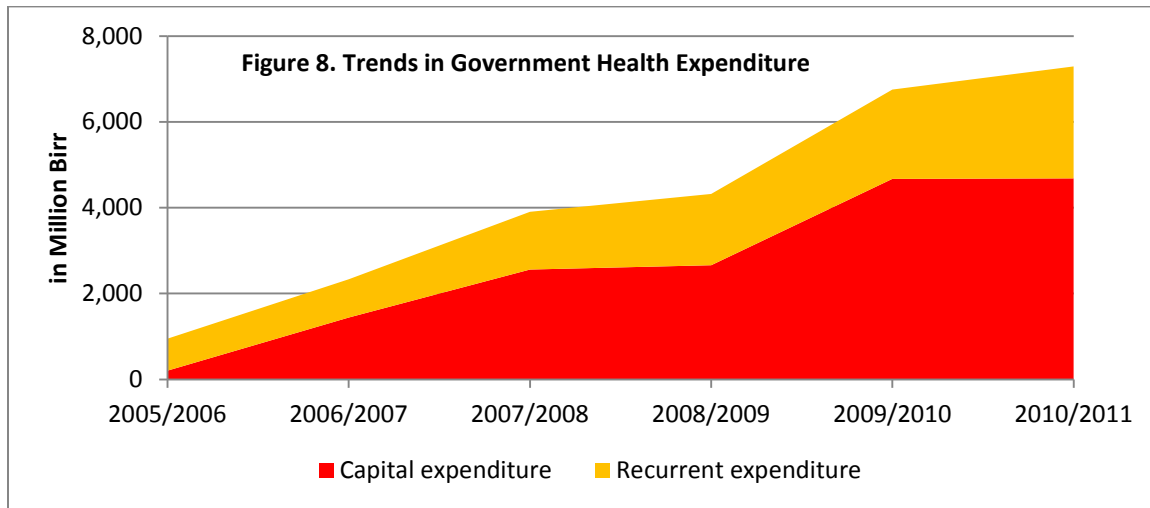
#### D. Level, distribution and execution of government expenditure

72. There has been considerable increase in government health spending in Ethiopia. As shown in Table 7, the percentage of government budget on health has increased over time. Overall, 8.8 percent of government budget is allocated for the health sector in 2010/2011. However, as discussed below, because of the better efficiency in the use of the limited resources, Ethiopia's health outcomes compares well with other countries that are spending higher resources.

	National	Federal	Regional
2005/2006	3.8%	0.8%	8.1%
2006/2007	7.6%	7.6%	7.7%
2007/2008	9.2%	9.6%	8.6%
2008/2009	8.7%	8.5%	9.0%
2009/2010	8.2%	7.1%	10.1%
2010/2011	8.8%	8.2%	9.7%

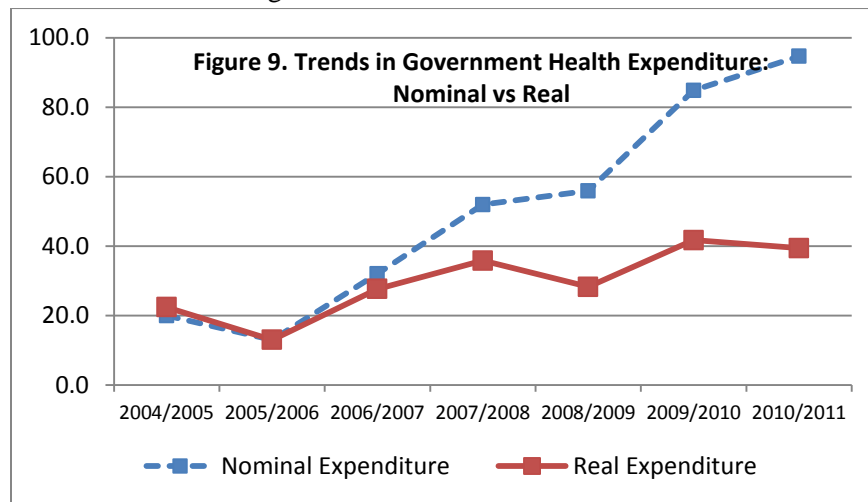
Source: MOFED, Government Accounts

73. **Government health expenditure has considerably increased in nominal terms.** Nominal health expenditure increased from about 1 billion Birr (US\$112 million) in 2005/06 to 7.3 billion Birr (US\$499 million) in 2010/11 (Figure 8). The share of capital expenditure in health grew from 21 percent in 2005/06 to 64 percent of the total government expenditure in 2010/11. This shift is because of the expansion in the construction of health facilities and related capital investments to improve access to essential clinical services to the rural populations. In the life of HSDP III (2005/06 – 2009/10) over 10,000 health posts, 2,300 health centers and 69 hospitals have been constructed.



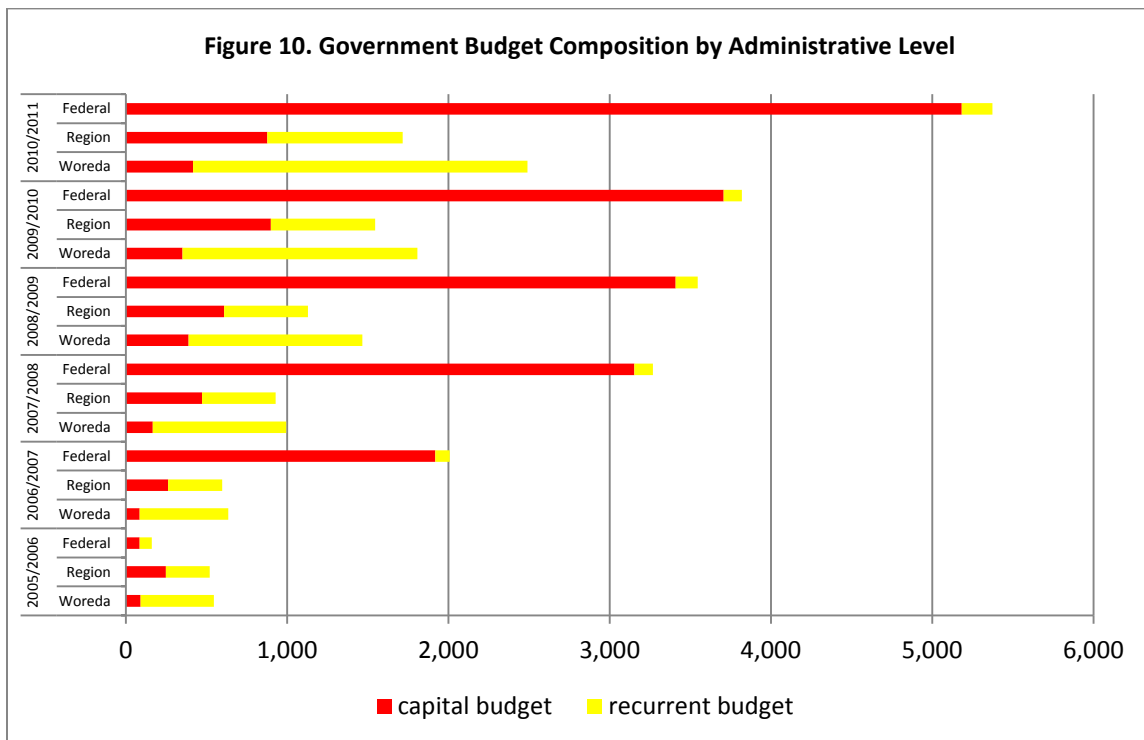
Source: MOFED, Government Accounts

74. **Health expenditure in nominal terms has increased faster compared to the growth in real terms (adjusted for inflation) from 2005/06 with widening gap.** The budgetary consequences of the recent inflation cannot be overstated. Inflation peaked in 2010/11, and the effect is that real expenditures are only 42 percent of nominal expenditures. A high inflation rate over this period eroded the real growth in expenditures. Figure 9 shows that the divergence between nominal and real growth has increased from 2005/06 and continued to widen through 2010/11.



Source: MOFED, Government Accounts

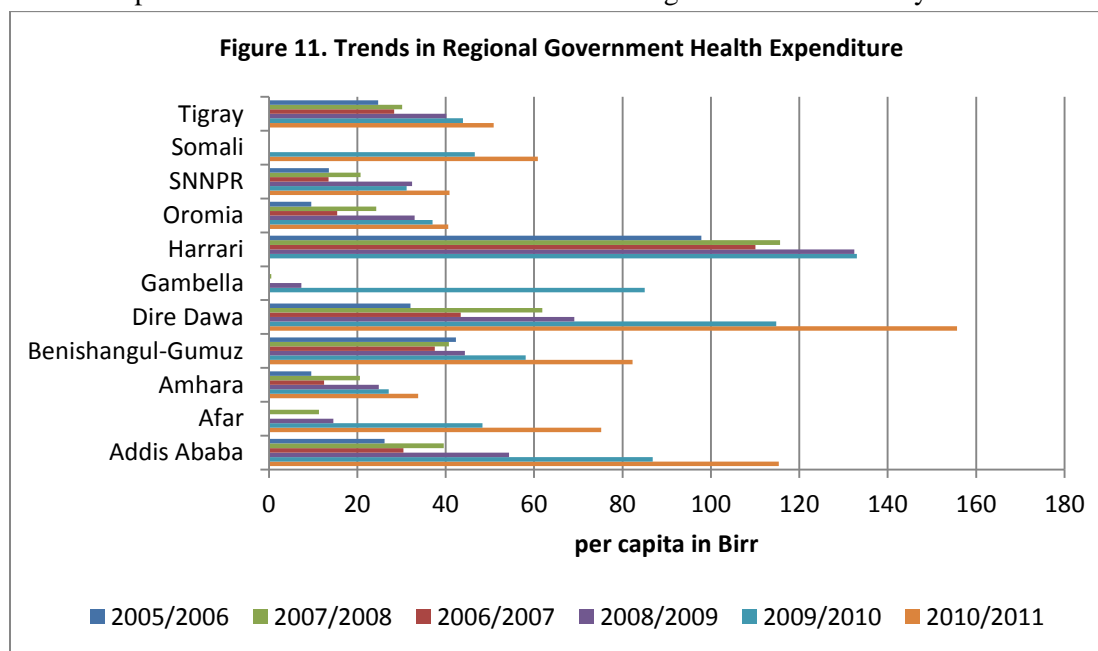
75. Government expenditure for health has increased at all level of the decentralized administration, particularly the Federal government because of the capital investment. Under the decentralized Health service system, Woreda and Region levels are mainly responsible for service delivery. The FMOH manages the five specialized hospitals and facilitates the capital investment at the regional and Woreda level. As discussed below using Figure 10, capital expenditures are mainly managed at the Federal level, whereas a substantial proportion of the total health sector recurrent expenditure is incurred at the Woreda level:



Source: MOFED, Government Accounts

- FMOH manages a substantial portion of the capital expenditure. On average, during the HSDPIII period (2005/06-2009/2010), over two-third of the total capital expenditure is managed by the FMOH, with a sharp increase in 2009/10. Regions account for 23 percent of the capital expenditure and Woredas about 10 percent. Woredas are supported directly and indirectly through transfers from the federal and Regional governments. Capital expenditures are low in most Woredas and there are notable horizontal imbalances. This is because Woredas also have to meet their wage and recurrent requirements from the same funds that could be used for capital expenditures. As stated in the Public Finance Review 2010, the government is experimenting with a Local Investment Grant (LIG), but the dominant funding mechanism is the general purpose block grant which focuses on equalization rather than sector performance.
- The high share of capital expenditure at the Federal level, however, needs careful interpretation. It does not mean that the health facility construction and other investments are happening at the Federal level rather at the Woreda and Regional levels. The FMOH is managing significant part of the capital investment taking place at the Woreda and Regional levels to meet the objective of improving access to essential clinical services.
- Woredas accounted for the bulk of the recurrent expenditure. On average, in the HSDP III period (2005/06 – 2009/10), Woredas accounted for 61 percent of the total recurrent expenditure followed by Regions (31 percent) and FMOH (8 percent). Within the Woreda budget, over 80 percent is allocated to recurrent mainly to cover salary payments. Whereas at the regional level only 46 percent of the Regional health budget is allocated to salaries.

76. **There is great variation in the level of per capita health expenditure across regions.** Each region per capita health expenditures has increased over the five year period. The variation across regions is evident as presented in Figure 11. For instance in 2009/2010, among all regions, per capita government health expenditure in Harari (Birr 133.1, US\$10.3) is almost five times that of Amhara (Birr 27.1, US\$2.1). This, however, can be because of the small size of the population in Harari and the high unit cost of service provision. The variation seems also narrowing down over the five years.



Source: MOFED, Government Accounts

77. Government budget execution rate has improved during the HSDP III period (2005/06 – 2009/10). Overall execution rate has been 86 percent on average, 64 percent for capital and 96 percent for recurrent budget. The execution rate for recurrent is very high in part because two-third of the recurrent budget is for salary payment. As detailed in Table 8, Woreda level has consistently registered a higher execution rate compared to the Federal and Regional levels. This is closely related to the fact that 85 percent of the budget at Woreda level is for recurrent expenditures mostly on salaries. Over time, it is clear that the level of execution rate at all levels has been increasing, in particular the Federal level that has increased from 57.7 percent in 2005/2006 to 99.1 percent in 2009/2010.

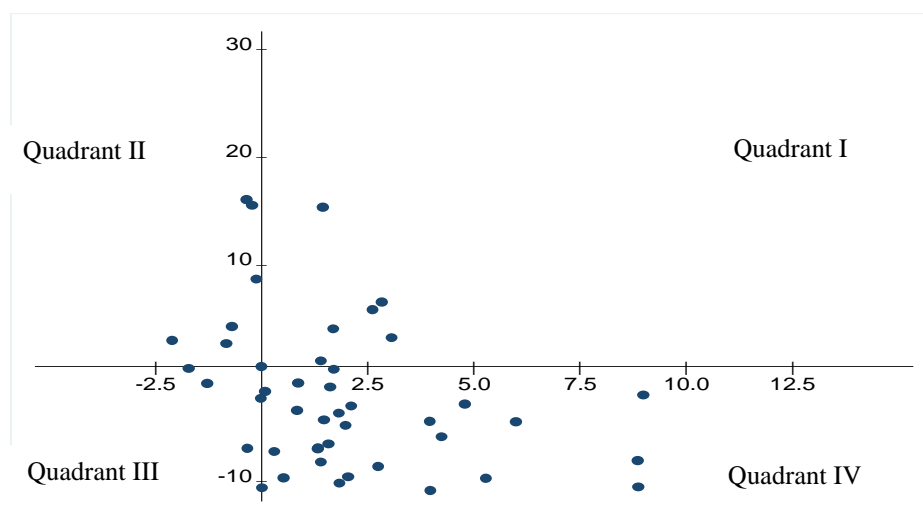
<b>Table 8. Budget Execution Rates by Administrative Level and Type of Expenditure</b>							
		2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
Capital:	Federal	42.1%	61.5%	66.6%	54.4%	99.5%	75.1%
	Regional	44.7%	75.5%	63.8%	72.2%	80.3%	71.3%
	Woreda	66.2%	71.7%	86.9%	88.2%	76.9%	73.7%
Recurrent:	Federal	75.1%	86.1%	120.3%	105.8%	87.0%	95.2%
	Regional	99.0%	90.6%	91.3%	94.2%	92.5%	91.5%
	Woreda	97.4%	97.8%	99.2%	98.9%	98.4%	96.3%
All:	Federal	57.7%	62.6%	68.5%	56.3%	99.1%	75.8%
	Regional	73.2%	84.0%	77.3%	82.3%	85.9%	81.2%
	Woreda	92.2%	94.3%	97.1%	96.0%	94.8%	92.5%

Source: MOFED, Government Accounts

## E. Effectiveness and efficiency of public expenditure on Health

78. Ethiopia compares better, in terms of efficiency, with other low income SSA countries. Taking Ethiopia as the origin point, we plotted the share of total health expenditure out of GDP (as an indicator of resource used for health sector) and expected life expectancy (as an indicator of health outcome) for all SSA countries in Figure 12. Countries located in Quadrant II are considered more efficient than Ethiopia given they have lower percentage of total health expenditures out of GDP, but a higher life expectancy at birth, i.e., they have achieved better health outcome with a lower level of resource compared with Ethiopia. On the contrary, countries located in Quadrant IV are considered less efficient than Ethiopia given they have higher percentage of total health expenditures out of GDP, but a lower life expectancy at birth. As indicated by the figures, most of low income SSA countries are located in Quadrant IV, reflecting a relatively lower efficiency. It is mostly middle and high income SSA countries that appear to be more efficient than Ethiopia based on this measure: Ghana, Mauritius, Namibia, Sudan, Senegal, and Sao Tome and Principe.

**Figure 12. Percentage of Total Health Expenditures Out of GDP (X axis) vs. Life Expectancy at Birth (Y axis), all SSA Countries Relative to Ethiopia (Ethiopia is located at origin)**



Source: World Bank HNP Databank, 2010

## VI. Program Economic Evaluation

79. Government intervention in the health sector is strongly justified in the case of Ethiopia on the grounds of equity, public good, externality, public sector reliance and efficiency.

- Addressing inequities is critical for achieving the MDGs. In Ethiopia Public Sector remains an important source of provision of health services in the rural and newly emerging areas where service delivery gaps for maternal and child health remain highest.
- The role for government is justified by the existence of externalities prevalent in health care sector such as immunization and treatment of communicable diseases. In Ethiopia

communicable diseases still account for 57.4% of deaths and their prevention and control requires extensive network of front line providers throughout the country.

- Ethiopia's Health Extension Program has provided a strong foundation for delivering an integrated package of preventive and promotive health services with focus on improving household health seeking behaviors. This now needs to be complemented by health systems that can provide the essential clinical services.
- Government is uniquely placed to provide public goods which are both non-excludable and non-rival. Some examples of public good include food safety, health product quality and rational use, vector control, health information systems, health education and promotion and environmental health issues. Without government intervention, it is most likely there will be undersupply of public goods in the private market.
- Public sector remains an important source for provision of health care and remains the major recipient of the health sector resources<sup>8</sup> while private providers (both for-profit and non-profit) received only 16 percent of total national expenditure on health despite significant increase in out of pocket expenditure on health. Therefore improving quality of the public sector will contribute to better health outcomes.
- Despite relatively low level of public expenditure in Ethiopia (US\$ 14.68 in 2009, less than 60 percent the average of the low income countries in SSA), Ethiopia has achieved impressive outcomes in reducing child mortality. Each administrative level has improved their budget capacity during HSDP III period (2005/2006-2009/2010). Further, when associating resources for health sector and health outcomes (indication of efficiency), Ethiopia fared better than most low income SSA countries.

80. Public provision of activities directly supported by this PforR operation can be similarly justified on the grounds of equity, public good, externality, public sector reliance and efficiency, because the MDGPF (where this PforR operation pools funding) support financial gaps in priority areas including maternal health, child health, capacity building of health extension workers and health systems strengthening. Furthermore, the DLIs selected will warrant that the outcomes achieved through public investment to these activities. All DLIs are directly related to activities directly supported by this PforR operation, in addition to one DLI dedicated to inequity (antennal service coverage among poorest quintile pregnant women), targets of other outcome DLIs are designed to make sure there will be concerted efforts to enhance coverage among the poor.

81. This PforR operation will contribute additional financing to the HSDP IV to achieve outcomes and unlikely to crowd out existing public resources or commitments from other development partners.

- There remains a substantial need for resources to achieve MDGs (as shown in previous costing section). It is estimated that the annual budget required will be US\$ 1765.3 million and US\$ 2165.6 million respectively for the base and best case scenarios. Even the base case scenario requires doubling the levels of current annual public expenditure on health (US\$884 million).
- The MDGPF is currently supported by Department for International Development (UK), Spanish Corporation, Italian Corporation, Irish Aid, Australian Aid, United Nations Population Fund (UNFPA), UNICEF and WHO. Recently, the Netherlands Government also has signed the Joint Financing Arrangement expressing its willingness to join the pool. The financial support provided

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<sup>8</sup> Fourth National Health Accounts Study (2007-2008)

through this PforR operation will account for approximately 10-15 percent of the MDG Performance Fund, or about 3 percent of the entire HSDP IV financing.

- Ethiopia has been consistently committing more public resources to health sector. As shown in Table 7, the percentage of government budget on health has increased from 3.8 percent in 2005/2006 to 8.8 percent in 2010/2011.

82. As the proposed PforR operation complements to the ongoing efforts of GOE and its partners in health sector it is difficult to quantify its direct economic impact. However, by supporting ongoing efforts of the Government on achieving MDGs through this innovative lending instrument, this PforR operation can be potentially pivotal in shifting focus to outcomes, cultivating the environment of pay-for-results, providing motivation to improve efficiency and strengthening the country's capacity to collect credible data and make evidence-based decisions.

## VII. Key Challenges and government response

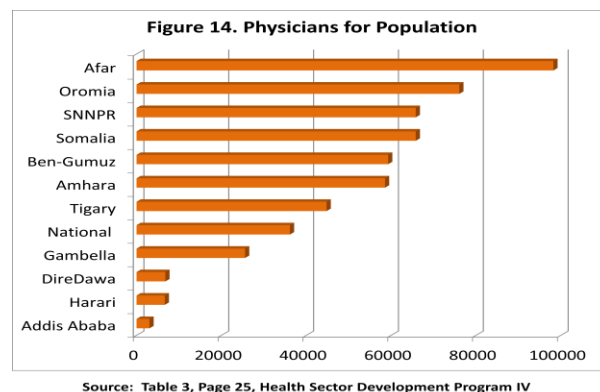
83. *Well-targeted and evidence-based actions are required to reduce the stubbornly high levels of maternal mortality.* Both supply and demand side constraints limit the scale-up of evidence based interventions to improve delivery and use of maternal health services. The distribution of midwives, physicians and specialists, especially obstetricians and anesthesiologists remain uneven. Cultural factors as well as financial constraints continue to affect demand for safe mother hood services.

84. *There are still inequities- both income and geographic - in utilization of essential health services.* There are also regional disparities in ability to plan and effectively deliver health services. Particularly, service delivery in the newly emerging regional states (Afar, Somali, Beneshangul-Gumuz and Gambella) remains a challenge due to the pastoral or semi pastoral nature of the population, poor health infrastructure, weak institutional capacities of RHBs and Woredas and harsh environmental conditions. There is also a higher dropout rate of HEWs in these regions. A Directorate for Pastoral Health Services has been established at the FMOH to address the special needs of such communities and tailored approaches have been developed including provision of technical assistance from other regions to build regional capacities. There are still constraints in improving services in these regions.

85. *Urgent need to focus on broader Health systems strengthening.* So far, the program has focused on effective engagement of communities and improving household behaviors through the Health Extension Program and routinely scheduled services such as Immunization, TB care and ART. Now attention is required on functional health system which provides 24 hrs care which focuses on adequate qualified and motivated staff, availability of commodities and effective referral care. Like other sectors, high turnover of staff remains a challenge and needs to be addressed through appropriate incentives and more efficient program management as envisaged by the HSDP IV.

86. *Human Resources in Health require priority focus both in terms of availability, distribution and skill mix.* The distribution of technical health staff especially the physicians and nurses is uneven. The productivity of health workers remains low and turn-over is high. Several factors contribute to this situation including general civil servant wages as well as competing demands from donor supported

programs. Particularly, skilled staff critical for providing safe motherhood and emergency services, such as midwives, surgeons, obstetricians and anesthesiologists, are in short supply especially in rural areas. The Government has started accelerated midwifery training and initiated emergency surgical and obstetric training for health officers to bridge the skill gaps. Under the health financing reforms, private wings are being established which allow the providers to earn additional income from patients using these services.

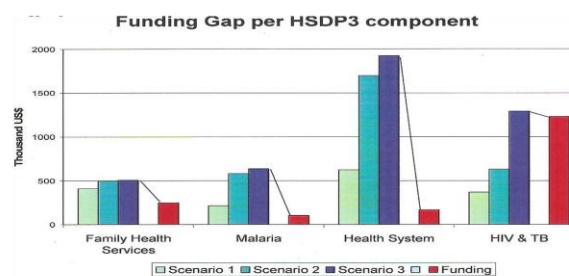


87. *Supply of health products remains critical.* While there is notable improvement in procurement and supply of the essential medicines and medical supplies with the establishment of a dedicated agency the PFSA, there is still a long way to go to ensure commodity security.

88. *The supply chain logistics need strengthening* through use of logistic management information system and options for more efficient arrangements for transport through outsourcing needs to be explored so that the PFSA can focus on its core mandate. Similarly capacities of rational use of medicines, efficient stock management and timely ordering need to improve at the health facility level.

89. *Large financing gaps still exist (Figure 15).* Overall financing for health (US\$ 16 per capita) is less than half of the minimum required for providing a basic package of health services. External financing is an important part of the health care financing in Ethiopia and contributes about 4 out of every 10 dollars spent on health. But fragmentation and duplication of donor support increases transaction costs. Eighty percent of external assistance focuses on a few diseases and gaps for maternal & child health and health systems strengthening remain high. There is increasing commitment of partners to support broader health systems strengthening by providing flexible funding through the MDG performance fund. Contributions steeply increased from US\$56.4 million in October 2010 to US\$193.2 million by July 2012. However, improving efficiency of the implementing agencies and prompt liquidation of advances under MDGPF remains a critical requirement for enhancing the effectiveness of MDGPF.

Figure 15. Funding Gap under HSDP III



Source: "Harmonization and Alignment: Applying One Plan, One Budget and One Report", Mekdim Enkossa, presented at 13th World Congress on Public Health at Addis Ababa, April 24, 2012. The presentation slides were provided by Italian Cooperation.

90. *The HSDP IV focuses on making the health facilities functional and on their delivering quality services in order to achieve the health MDGs, especially Maternal Health.* The FMOH is trying to address the critical service delivery constraints through a combination of supply and demand side interventions. More midwives are being trained and a new training program has been started in emergency surgery and obstetrics to health officers. The Balanced Score Card approach is being scaled up as a performance assessment tool to improve effectiveness of health facilities and Woreda Health Offices by introducing institutional incentives linked to performance. Provision of essential medicines and equipment as well as ambulance services to improve access to referral care are being given high priority. There is also increased focus on demand side interventions especially community participation and social mobilization



involving women and traditional leaders. Facility management Boards with community representation are playing active roles in planning and budgeting.