



HIV/AIDS and the Health-related Millennium Development Goals:

## **The Experience in Ethiopia**



Federal Democratic Republic of Ethiopia, Ministry of Health  
September, 2010



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## Acronyms

<b>AIDS</b>	Acquired Immune Deficiency Syndrome
<b>ANC</b>	Antenatal Care
<b>ART</b>	Anti-Retroviral Therapy
<b>ARV</b>	Anti-Retro Viral
<b>BCC</b>	Behavioral Change Communication
<b>CC</b>	Community Conversation
<b>CDC</b>	Center for Disease Control
<b>DBS</b>	Dried Blood Sample
<b>DOTs</b>	Directly Observed Treatments
<b>DPT</b>	Diphtheria, Pertusis and Tetanus
<b>EMSAP</b>	Ethiopian Multi-Sectoral HIV/AIDS Program
<b>FDC</b>	Fixed Dose Combination
<b>FHAPCO</b>	Federal HIV/AIDS Prevention and Control Office
<b>FMOH</b>	Federal Ministry of Health
<b>GDP</b>	Growth of Domestic Product
<b>GFATM</b>	Global Fund to Fight AIDS, Tuberculosis and Malaria
<b>GHI</b>	Global Health Initiatives
<b>HAPCO</b>	HIV/AIDS Prevention and Control Office
<b>HCT</b>	HIV Counseling and Testing
<b>HEWs</b>	Health Extension Workers
<b>HIV</b>	Human Immune Virus
<b>HMIS</b>	Health Management Information System
<b>HPDP</b>	Health Promotion and Disease Prevention
<b>HRH</b>	Human Resource for Health
<b>HSDP</b>	Health Sector Development Plan
<b>HSEP</b>	Health Service Extension Program
<b>HSS</b>	Health System Strengthening
<b>IEC</b>	Information, Education and Communication
<b>IHP+</b>	International Health Partnership and Related Initiatives
<b>IMCI</b>	Integrated Management of Childhood Illnesses
<b>IMNCI</b>	Integrated Management for Neonatal and Child health Illnesses
<b>INTs</b>	Insecticide Treated mosquito Nets
<b>MAC-E</b>	Millennium AIDS Campaign-Ethiopia
<b>MAP</b>	Multisectoral AIDS Project
<b>MDG</b>	Millennium Development Goal
<b>M&amp;E</b>	Monitoring and Evaluation
<b>MOH</b>	Ministry of Health
<b>NEP+</b>	Network of Networks of HIV Positive Associations in Ethiopia
<b>NGO</b>	Non Governmental Organization
<b>NHA</b>	National Health Account
<b>NHE</b>	National Health Expenditure
<b>ODA</b>	Official Development Assistance
<b>PASDEP</b>	Plan for Accelerated and Sustained Development to End Poverty
<b>PEPFAR</b>	US President's Emergency Plan for AIDS Relief
<b>PFSA</b>	Pharmaceutical Fund and Supply Agency
<b>PLHIV</b>	People Living With HIV
<b>PMTCT</b>	Prevention of Mother to Child Transmission
<b>RHB</b>	Regional Health Bureau
<b>STI</b>	Sexually Transmitted Infection
<b>TB</b>	Tuberculosis
<b>UN</b>	United Nations
<b>UNAIDS</b>	Joint United Nations Program on HIV/AIDS
<b>WHO</b>	World Health Organization

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## Executive Summary

Ethiopia's AIDS response is distinguished by its 'integrated health system strengthening approach' to expanding health service delivery. This approach is believed to have contributed to the significant strides the country has made towards the health MDGs. At the global level, in a drive to maximize efficiencies and demonstrate the impact of the substantial investments made in health over the last decade, there has been growing literature examining the positive bi-directional linkages<sup>1</sup> between the response to AIDS and the MDGs. This study of Ethiopia's experience is envisaged as an addition to this growing body of knowledge aimed at improving understanding of the linkages between the AIDS response and the achievement of the MDGs.

Successive phases of Ethiopia's Health Sector Development Program (HSDP) have introduced important reforms, such as the Health Extension Program (HEP) which aims to ensure universal primary health care coverage and institutionalize community health services. The current HSDP priorities are directly aligned with the health-related MDGs and focus on high-impact health system strengthening (HSS) interventions needed to scale-up coverage of key health services.<sup>2</sup>

The AIDS response in Ethiopia is playing an important role in the context of HSS through the provision of financial resources and expertise. Significant amounts of resource channeled for disease control programs such as HIV/AIDS, for example, are being used in innovative ways to support broader HSDP objectives and, in turn, the achievement of all health MDGs. In addition to expanding coverage of key disease-specific interventions, substantial resources provided for AIDS control through major global health initiatives, including, the United States President's Emergency Plan for AIDS Relief (PEPFAR), the Global Fund to Fight AIDS, TB and Malaria (GFATM) and the World Bank-supported Ethiopian Multi-Sectoral HIV/AIDS Program (EMSAP) are being used to support HSS.

These collective investments have resulted in significant improvements to the national health system in recent years. Using the World Health Organization's (WHO) 'Health System Building Blocks' as a general framework of analysis, this study documents Ethiopia's unique experience with this 'integrated health system strengthening approach' to expanding AIDS services. Following is a summary of the study's key findings which are further elaborated in *Section 2*.

**Health financing: The Ethiopian Government's strong leadership on the HSS agenda, combined with the willingness of partners to channel resources more flexibly with a view to supporting broader HSS efforts, have been key to expanding health service coverage in Ethiopia.** Between 25-30% of resources from GFATM HIV grants (equivalent to USD 90 million) have been used to strengthen Ethiopia's health system. PEPFAR has contributed over USD 200 million to HSS. Likewise, USD 20 million of World Bank funds have been used to expand and strengthen the country's primary health care infrastructure. In addition, with a view to increasing domestic resources available for HIV and other health interventions, the Government of Ethiopia has used a '*matching fund*' scheme whereby Regional governments commit resources to match Federal Government investments in the construction of health facilities.

**Human Resources: AIDS funding in Ethiopia appears to have catalyzed a new model of decentralized health care delivery by bolstering the health workforce in a number of ways. It has enabled expanded use of task-shifting which has led to rapid increases in service uptake for HCT and ART in particular. Further, the massive deployment of community-based Health Extension Workers (HEWs) has contributed to significant increases in coverage of primary care services through social mobilization. AIDS funding has also enabled the training and deployment of a new cadre of Monitoring and Evaluation (M&E) specialists who are working on M&E of both AIDS control and broader health services/systems.**

**Infrastructure, medical technology and products: Significant progress has been made in expanding health facilities in Ethiopia- from 3,544 in 2004 to 17,300 in 2010. As a result potential primary health service coverage has doubled. Supported by GFATM, PEPFAR, the World Bank and the Clinton Foundation, the country's Second National Laboratory Master Plan stands to benefit HIV/AIDS and other patients alike, through improved integration of services, harmonization of procurement, management systems and referrals. GFATM and PEPFAR funds have been used to strengthen the capacities of the national Pharmaceutical Fund and Supply Agency, purchase warehouses, trucks and construct cold rooms that will benefit the whole health system.**

**Information systems: AIDS funding has also helped to improve the national Health Management Information System, including through the establishment of the country's first specialized Masters-level program on public health M&E, and the production of a cadre of M & E specialists who are helping strengthen health data collection, management and analyses capacities throughout the country's decentralized health system.**

These concrete health system improvements, along with key measures aimed at decentralizing and integrating services, have contributed significantly to the country's overall progress on the health MDGs in recent years.

**MDG4 (Child Health): Decentralized and integrated HIV-related services have led to increased uptake of early**

<sup>1</sup> WHO. Maximizing positive synergies collaborative group. An assessment of interactions between global health initiatives and country health systems. *Lancet* 2009; 373 : 2137-69.

<sup>2</sup> FMOH. The Health Sector Development Program III (2005/06-2009/10). MOH. Addis Ababa; 2006.

**infant diagnostic testing and expanded ART coverage among children.** The increase in the number of **sites delivering Integrated Management for Neonatal and Childhood Illnesses (IMNCI) services and HEP's expansion of community mobilization to promote** home-based child healthcare practices have helped to broaden **immunization coverage and improve child survival significantly**, with a sharp decline of under-five child mortality rates from 204 per 1000 live births in 1990 to 101 per 1000 live births in 2008.

**MDG 5: (Maternal Health): A combination of interventions is contributing to the reduction of Ethiopia's maternal mortality ratio which has decreased by 45% from 1068 per 100,000 live births in 1990 to 590 in 2008.** While it is difficult to attribute this reduction to specific interventions without further research, two important factors have undoubtedly contributed a lot: **a stronger health system** that has enabled increased access and utilization of maternal health services; and the **decentralization of services to the community level through the HEP. Both of these efforts have been strongly supported by AIDS funding.**

**MDG6 (AIDS, TB, Malaria and other major diseases):** There have been **significant increases in the uptake of HIV-related interventions as a result of decentralization and integration of complementary services, which were made possible through** the expansion of facilities and increased human resources available to staff them. For example, expansion of HCT services presents opportunities to address STI prevention. Likewise, the **percentage of TB patients counseled and tested for HIV increased substantially from 10% in 2006 to 80% in 2009.**



## Chapter 1: Introduction

The Millennium Development Goals (MDGs) represent globally agreed commitments to address key health and development challenges. Three of the eight MDGs are directly related to health: reducing child mortality (MDG 4), improving maternal health (MDG5), and addressing HIV/AIDS, malaria and other diseases (MDG6).

In a push to maximize efficiencies and demonstrate the impact investments made in health to date, there has been growing literature examining the bi-directional linkages<sup>3</sup> between AIDS and the MDGs. A study commissioned by UNAIDS in 2008<sup>4</sup> systematically analyzed the potential impact of AIDS on each of the MDGs, as well as the potential contribution of AIDS interventions to the attainment of other MDGs. Although conclusive evidence for these potential linkages is still lacking at global level,<sup>1</sup> this, study and additional country studies add to the growing body of knowledge that seeks to further understanding of the linkages between the AIDS response and the achievement of the MDGs at country level.

While linkages have been suggested between AIDS and all the MDGs, linkages are particularly evident between the health-related MDGs.<sup>5</sup> Strengthening HIV/AIDS-related services can significantly contribute to the outcomes of the other components of MDG 6, and MDGs 4 and 5, and vice versa. These linkages have been recently articulated through UNAIDS' "AIDS plus MDGs" agenda. This agenda implies an integrated approach to addressing AIDS and all the MDGs and the strategic use of health and development funding to build strong and sustainable health systems which result in broader health outcomes.

### 1.1. Purpose of the study

The primary purpose of this study is to investigate the linkages between the AIDS response, health systems strengthening efforts, and progress made towards MDGs 4, 5 and 6. To a limited extent, the study also recognizes the influence of investments made in MDGs 4 and 5 on HIV and AIDS outcomes. Health systems strengthening (HSS) forms the backbone of Ethiopia's current Health Sector Development Plan (HSDP III) and is, therefore, a key focus for this study. AIDS resources used to support HSS efforts, together with the reorganization of health services are believed to have contributed to positive synergies across the health-related MDGs.

The methodology used for this study draws on a rapid assessment approach based on a desk-review of key strategic documents, program progress reports, grant and project proposals, surveys and research papers.

### 1.2. Ethiopian context

Ethiopia is a large, predominantly rural, country covering an area of 1.13 million sq km. The country is a Federal Democratic Republic, with a decentralized administrative structure, composed of nine regional states and two city administrations. Ethiopia is currently the second most populous country in Africa (next to Nigeria) with a total population of about 79 million, growing at an annual rate of 2.6%, according to the 2007 national census<sup>6</sup>. Around 84% of the total population lives in rural areas where infrastructure is limited and delivering essential services remains challenging.

While Ethiopia ranked 171 out of 182 countries on the Human Development Index (HDI) in 2009<sup>7</sup>, it has registered robust economic growth over recent years. The share of population living below the national poverty line has decreased over the last few years, but remains high at 35% and a significant share of the population still live below the World Bank's moderate poverty line.<sup>8</sup>

Ethiopia's Plan for Accelerated and Sustained Development to End Poverty (PASDEP 2005/6-2009/10) sets out the country's 5-year strategy to eradicate poverty. The strategic direction of the Plan focuses on infrastructure; human development; rural development; food security; capacity-building; economic growth with particular emphasis on greater commercialization of agriculture and enhancing private sector development, industry and urban development; and scaling-up efforts to achieve the MDGs.

According to OECD-DAC statistics, Ethiopia is the 7th largest recipient among 169 aid receiving developing countries<sup>9</sup>. The aid environment is complex in Ethiopia. However, steadfast political leadership on health has fostered strong collaboration among diverse country partners including bilateral and multilateral agencies, non-governmental and faith-based organizations as well as the private sector. In August 2008, Ethiopia became the first country to sign a Country Compact within the framework of the International Health Partnership (IHP+). At the core of the Ethiopian IHP+ compact is a joint ambition to accelerate progress towards the health-MDGs. The country has also made steady progress towards the harmonization principle of 'one-plan, one-budget and one-report', based on the country-led process and harmonized funding- mechanisms, resulting in the conclusion of a Joint Financing Arrangement, signed by major development partners in April, 2009.

<sup>3</sup> Linkages refer to bi-directional synergies in policy, programs and services across sectors and disciplines. It can also refer to a broader human rights based approach, of which service integration is a sub-set.

<sup>4</sup> Grant K. & Mundy J. 2008. Strengthening linkages between the AIDS Response and the MDGs: A Discussion Paper for UNAIDS. London: HILSP.

<sup>5</sup> UNAIDS. AIDS plus MDGs: A Global Imperative. UNAIDS. Geneva;2010

<sup>6</sup> CSA. Summary and Statistical Report of the 2007 Population and Housing Census: population size by age and sex. <http://www.csa.gov.et/pdf/cen2007-firstdrfat.pdf>. (Accessed on September 1st, 2010).

<sup>7</sup> <http://hdr.undp.org/en/statistics/> accessed 10 September 2010

<sup>8</sup> Action for Global Health Partners: Ethiopia Aid effectiveness in the health sector case study; September 2009

<sup>9</sup> [http://www.brookings.edu/papers/2009/04\\_ethiopia\\_aid\\_alemu.aspx](http://www.brookings.edu/papers/2009/04_ethiopia_aid_alemu.aspx)

### 1.3. The Health Sector

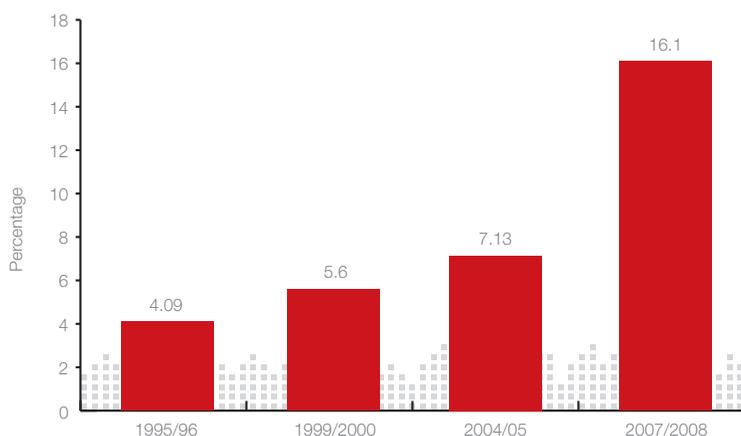
Ethiopia has registered significant progress in its health sector. The under-five mortality rate decreased from 204 per 1000 live births in 1990 to 101 in 2008. Maternal mortality ratio have also declined from 1068 per 100,000 live births in 1990 to 580 per 100,000 in 2008. Despite these improvements, in order to meet MDGs targets, under-five mortality will need to be reduced further to 68 per 1000 and maternal mortality to 267 per 100,000 live births by 2015.

Ethiopia's Health Policy (1993) has been translated into a comprehensive Health Sector Development Program (HSDP) - a 20-year strategic roadmap for the health sector aligned with the cross-sectoral PASDEP - which has been implemented in three successive phases starting in 1996/97. These successive programs have introduced important reforms such as the Health Extension Program (HEP), aiming to ensure universal primary health care coverage and institutionalize community health services. Evaluations of HSDP I and II identified health system weaknesses such as insufficient capacity of the health system to meet the demands of the population<sup>10</sup> as obstacles to increasing access to health services<sup>9</sup>. The priorities of the current third phase - HSDP- III (2005/6 - 2009/10) have therefore been directly aligned with the health-related MDGs, and focus on high-impact HSS interventions needed to scale-up coverage of key health services. Significant amounts of disease-specific funding including resources channeled for HIV/AIDS control have been used to support implementation of HSDP III. The fourth phase - HSDP-IV is currently being finalized.<sup>11</sup>

#### Resources for Health

Health services in Ethiopia are primarily financed by four sources: government sources; grants and loans from donors; non-governmental organizations; and private contributions.<sup>10</sup> Ethiopia's National Health Accounts show that total health expenditure had grown significantly from \$230 million in 1995/96 to USD 1.2 billion in 2007/08. The country's per capita health expenditure has also increased over the last decade, from \$4.09 in 1995/96 to \$16.1 in 2007/08 (Figure 1).<sup>12</sup>

Figure 1: Increase of Health Expenditure in (USD per capita, 1995/96-2007/8)



Source: MoH 2010

In line with the 'three ones' principles of harmonization, 'one budget' calls for all available funding for health to be effectively pooled and flow through government channels. Subsequent to the signing of the IHP+ Compact, a joint decision between the MOH and major health development partners led to the completion of an independent assessment of the health system. This assessment resulted in the establishment of the 'MDG Performance Fund' which became the hallmark towards a 'one-budget' framework in the health sector. An increasing number of development partners are contributing to this pooled funding mechanism which has been used to strengthen the general health system to expand and accelerate the delivery of accessible and cost-effective health services.<sup>10</sup> The health sector has also received a large share of Official Development Assistance (ODA) in recent years with more than 72% of donor resources financing three diseases: HIV/AIDS, malaria and tuberculosis. The Global Fund to Fight AIDS, TB and Malaria (GFATM) and the Global Alliance for Vaccines and Immunization (GAVI) account for about 55% of all donor resources.

<sup>10</sup> MOH. Report of the Final Evaluation of HSDP II of Ethiopia, MOH. Addis Ababa; 2006.

<sup>11</sup> MOH. The Health Sector Development Program IV (2010-2014). MOH. Addis Ababa; 2010.

<sup>12</sup> MOH. National Health Account IV; 2007/2008. MOH. Addis Ababa; April 2010.

## 1.4. HIV/AIDS in Ethiopia

In Ethiopia there are currently 1.2 million PLHIV, with an adult HIV prevalence of 2.4% (7.7% urban and 0.9% rural) and male-female ratio of 1.9% and 2.9% respectively. A total of 397,818 people living with HIV (PLHIV) are estimated to be in need of antiretroviral treatment (ART), and an estimated 137,494 new HIV infections will take place this year (2010). The HIV/AIDS epidemic in Ethiopia is *generalized* with significant heterogeneity between regional states and population groups. Although prevalence is lower than many sub-Saharan African countries, the burden of the epidemic in the country is pronounced. The Ethiopian Strategic Plan for Intensifying Multi-Sectoral HIV/AIDS Response (2004-2008) reported that the major mode of HIV transmission in Ethiopia is heterosexual; accounting for 87% of all infections. A further 10% of infections were reported to occur through mother to child transmiss

## 1.5. The Ethiopian AIDS response

The multisectoral response to HIV/AIDS in Ethiopia is well-aligned with the PASDEP and HSDP III<sup>13</sup>, and it is guided by the following policies, strategies and plans:

- National HIV/AIDS Policy (1998);
- Strategic Plan for Intensifying Multisectoral HIV/AIDS Response (2004);
- Multisectoral Plan of Action for Universal Access to HIV Prevention, Treatment, Care and Support (2007-2010) – *considered the lead document in coordinating a national response to the epidemic in Ethiopia*<sup>14</sup>
- Road Map for Accelerated Access to HIV Prevention, Treatment and Care (2007)

### Resources for AIDS

A significant proportion of national funding for health has been allocated to the AIDS response over recent years: In 2007/2008, Ethiopia's national spending on HIV/AIDS was 20% of National Health Expenditure (NHE), equivalent to USD248 million. Government contribution represented 11% of total spending on HIV/AIDS.<sup>11</sup> In the context of HSS the government of Ethiopia has also used 'matching fund' to increase resources available.

The two biggest sources of funding contributing to the AIDS response in Ethiopia are PEPFAR (USD 355 million in 2008) and GFATM (over USD1.3 billion approved since 2003 with USD 590 million already disbursed). Further, through the Ethiopian Multi-Sectoral HIV/AIDS Program (EMSAP), the World Bank committed USD 60 million for the first phase (2001-2005) and spent a further USD 25 million on the AIDS response over the last three years (2007-2010) under EMSAP II<sup>15</sup>. UNDAF is also an important partner for the AIDS response, spending USD 64.4 million of USD 81.85 million committed funds (78%) between 2007 and 2009.<sup>14</sup>

With a view to ensuring effective use of these large funding flows, the Ethiopian Government has been actively promoting the allocation and use of AIDS resources in pragmatic ways. Rather than exclusively channeling funds vertically to support disease control programs, major funding partners have invested resources earmarked for the AIDS response *diagonally*<sup>16</sup> by funding health system strengthening interventions. To this end, the government negotiated the following agreements:

- USD 20 million **World Bank** Ethiopian Multi-Sectoral AIDS Program (EMSAP) funds were reallocated to support primary health care infrastructure

In consultation with the **GFATM**, 25-30 per cent of grants worth around USD 444 million were directed to strengthen the health system to facilitate delivery against targets. (*GFATM total HIV funds: USD291 million; HSS portion: USD 90million*)<sup>17</sup>

- Over USD 200 million of funds allocated through **PEPFAR** up to 2010 were used on health systems strengthening, including renovation of hospitals, health centers, blood banks and laboratories. (*PEPFAR total HIV funds -approx: USD 1.4billion; HSS portion: USD 212 million*).

In the spirit of partnership, similar modalities or rearrangements were also incorporated within other disease-specific financial resource streams with a number of other funding partners. The main focus in pursuing these arrangements is on results. Ethiopia is considered among the GFATM 'top-performers' In addition, the World Bank, along with other IHP+ partners, have further demonstrated their confidence in Ethiopia's ability to deliver results by channeling resources through the pooled health sector 'MDG Fund'.

<sup>13</sup> FHAPCO. Strategic Plan for Intensifying Multisectoral HIV and AIDS Response in Ethiopia for 2010-2014.

<sup>14</sup> FHAPCO. Report on progress towards implementation of the UN Declaration of Commitment on HIV/AIDS 2010.

<sup>15</sup> [http://gametlibrary.worldbank.org/FILES/1143\\_Getting%20results%20-Ethiopia-Jan19-final.pdf](http://gametlibrary.worldbank.org/FILES/1143_Getting%20results%20-Ethiopia-Jan19-final.pdf)

<sup>16</sup> A "diagonal" approach recognizes the necessary complementarity between disease-specific programs and improvement in health systems, with costs shared by both international and domestic funding sources (BioMed Central: The 'diagonal' approach to Global Fund financing: a cure for the broader malaise of health systems? 25 March 2008)

<sup>17</sup> Results for Development Institute. HIV and AIDS Programs: How they Support health system strengthening. 2008

## Chapter 2: Specific contributions of the AIDS response to HSS: Key Findings

This chapter describes how AIDS funding has been used to strengthen Ethiopia's health system. The findings are organized using the WHO Health System Building Blocks<sup>18</sup> as a general framework highlighting specific contributions of the AIDS response.

### 2.1. Financing Health Systems: the contribution of the AIDS response

As mentioned earlier (Section 1.6) around 25-30% of resources from GFATM HIV grants have been used to strengthen Ethiopia's health system. By 2008, GFATM grants worth USD 444 million had been approved for Ethiopia. Of these:

- USD 129 million was for malaria;
- USD 24 million for TB; and

USD 291 million for HIV and HSS of which., USD 90 million supported HSS objectives

The funds to support HSS have helped bolster laboratory services, improved storage and distribution of health products, and contributed to constructing new and upgrading existing health facilities to provide improved and expanded basic maternal and child health services.<sup>19</sup>

Further, a fifth of the USD 354 million of the 2008 **PEPFAR** budget for Ethiopia (approx. USD 71 million) supported HSS and around USD 20 million was spent on the renovation and construction of health facilities and blood banks, strengthening of the laboratory supply chain management and information systems, and the training of health professionals for general health services. PEPFAR has also supported the Health Management Information System (HMIS) of the Ministry of Health. In total over USD 200 million PEPFAR funding was used to fund HSS efforts up to 2010.

**World Bank EMSAP** resources have also supported HSS efforts with investments totaling USD 20 million for strengthening primary care infrastructure.<sup>15</sup>

#### Additional health sector support provided under EMSAP includes:

- purchase of drugs for the treatment of opportunistic infections;
- strengthening of blood safety measures;
- establishment of 170 voluntary counseling and testing centers;
- establishment of new surveillance sites increasing the total number of ante-natal clinic (ANC) sentinel sites in the country (predominantly in rural areas) from 15 in 2000 to 64 in 2003<sup>20</sup>

Without these collective substantial contributions to HSS, it is clear that the expansion of services to meet HIV/AIDS and other general health needs would not have been significant.

Key messages for financing the health system:

- **Approx. 25-30% of resources from GFATM HIV grants (equivalent to USD 90 million) have been used to strengthen the Ethiopian health system**
- **Approx. USD 71 million of PEPFAR funds supported HSS in 2008 and to date cumulative total support to HSS amounts to over USD 200 million**
- **USD 20 million of WB funds used to strengthen primary care infrastructure**
- **Ability and willingness of government and AIDS partners to use resources more flexibly for HSS contributing to significant expansion in service coverage**

### 2.2. Human Resources: the contribution of the AIDS response

The health workforce continues to represent one of the most significant challenges in scaling up key HIV and other priority health interventions in Ethiopia. In response, Ethiopia has developed a comprehensive strategic plan for Human Resources for Health (HRH) that focuses on the production and retention of a diverse cadre of health workers. The plan is being realized through increasing the number and capacity of training institutions, using existing health institutions as training centers, and introducing incentive packages to motivate and retain health workers.<sup>21</sup>

In line with national efforts to decentralize the delivery of health services, efforts continue to be made to devolve and expand HIV-related services from tertiary and secondary levels to primary level facilities. Through decentralization and integration efforts, the AIDS response has supported critical movements that have led to increased health workforce capacity at community levels:

<sup>18</sup> Leadership and governance; health workforce; information; medical products, vaccines and technologies; financing; and service delivery

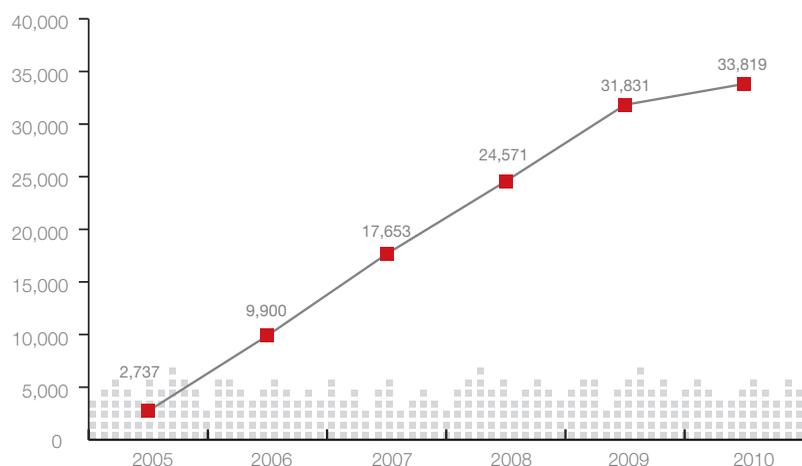
<sup>19</sup> MOH. Global Fund 16th Board Meeting. MOH. Addis Ababa; 2009.

<sup>20</sup> World Bank, Evaluation of the World Bank's Assistance in Responding to the AIDS Epidemic: Ethiopia Case Study; 2005

<sup>21</sup> MOH. The Strategic Plan for Human Resources for Health in Ethiopia. MOH. Addis Ababa; 2009.

- Since 2004, close to **34,000 health extension workers (HEWs) have been trained and deployed** in *kebeles* across the country. (see *Figure 2*). HEWs promote community mobilization to address HIV and other health problems, including through facilitating regular Community Conversations (CC) - dialogue and information exchange among community members on key health topics and the development of pro-active action plans for the prevention and management of common health concerns (see *Box 1*). HEWs also mobilize and coordinate immunization drives and distribute bed nets. These activities seek to change attitudes and improve health-seeking behaviors, thus providing an important contribution towards the health MDGs. As a result of large increases in the numbers of health staff, most notably HEWs, MNCH and HIV services have been expanded at community levels (see 2.5 for further details on increases in service uptake),
- Through an accelerated health officer training program launched in 2005, 3,573 health officers have been trained and deployed throughout the health system to expand service delivery. Health officers are mid-level health professionals who, in addition to providing range of other clinical services, typically lead the delivery of key HIV services and patient follow-up at health center level. A Masters program on emergency surgery has also been initiated in five universities with a view to addressing the pressing need for emergency surgical services.
- The AIDS response has also enabled the creation of new cadres of health workers such as monitoring and evaluation (M & E) specialists, data clerks, community counselors, adherence-and retention-related workers. While the graduate training program on M&E was established through AIDS funding support, M & E specialists have been deployed throughout the health sector to support the general health system.
- **Task shifting<sup>22</sup>** has also **been implemented successfully in the delivery of AIDS services in Ethiopia. Task shifting** from doctors to health officers, nurses, and health extension workers is thought to be responsible for the significantly expanded access to ART and HIV counseling and testing, whilst maintaining the performance of other health programs such as tuberculosis and maternal and child health services.<sup>23</sup>

Figure 2: Growing numbers of Health Extension Workers in Ethiopia, 2005-2010



<sup>22</sup> Task shifting is the name now given to a process of delegation whereby tasks are moved, where appropriate, to less specialized health workers. By reorganizing the workforce in this way, task shifting can make more efficient use of the human resources currently available to support universal access to HIV prevention, treatment and care. Task-shifting is recognized by WHO as a strategy to address the shortage of HR for HIV/AIDS

<sup>23</sup> Assefa Y, et al. Rapid Scale-up of ART in Ethiopia Successes and Challenges. PLoS Medicine; 2009

## Spotlight: Aiding the delivery of primary health care through the AIDS response

To date, the Health Extension Program (HEP) has trained and deployed approximately 34,000 community based health extension workers (HEWs) - placing two HEWs in every kebele<sup>23</sup>. AIDS resources have provided significant contributions to the HEP in recent years. The HEP is a community-based program which aims to provide universal access to primary health care through the delivery of 16 packages of basic promotive, preventive, and selective curative services. HEP is based on the principle that families can assume responsibility for maintaining their own health if they acquire the right knowledge and skills. The program gives special attention to mothers and children. HEP delivers primary health care services to the local community. On average, HEWs spend around 75% of their time in the field conducting outreach services, through house-to-house calls, and the remaining time at the health post.<sup>10</sup> HEP has contributed significantly to the effective promotion of social mobilization at the grassroots-level. Social and community mobilization interventions have helped to promote positive behaviors towards HIV/AIDS, and ensure strong ownership of the response to HIV/AIDS at all levels. Community mobilization can also positively influence social cohesion, sensitization, and through demand-creation, promote better health-seeking behaviors. Community counselors, HIV-positive peer educators and home-based care providers have been deployed in health facilities, linking formal health service provision to community interventions. HEWs are actively involved in community mobilization and HIV/AIDS education through 'community conversations' (CCs).<sup>24</sup>

### Box 1: Community Conversations: supporting community mobilization and education on HIV/AIDS as well as broader health and social issues

"Community conversations" are taking place across rural Ethiopia. Once a week or fortnight in "kebeles" around the country up to 70 people gather for a couple of hours with trained local facilitators to exchange their views on a range of health and social topics. These gatherings enable taboos to be aired and misunderstandings about sex and AIDS to be clarified. Traditional practices that may be factors in the spread of HIV are also discussed. These community dialogues have changed opinion and even translated into action. For example, in some localities groups have condemned early marriage and committed to protecting school girls from discontinuing their education. Others decided to stop female genital cutting or reached consensus to avoid practices like widow inheritance. The importance of leveraging AIDS responses to deliver broader development results including gender equality and human rights is often emphasized by UNAIDS Executive Director Mr. Michel Sidibé.

Source: [http://www.unaids.org/en/KnowledgeCentre/Resources/FeatureStories/archive/2009/20090421\\_rural\\_Ethiopia.asp](http://www.unaids.org/en/KnowledgeCentre/Resources/FeatureStories/archive/2009/20090421_rural_Ethiopia.asp)

Table 1: The trend in Human Resource for Health in Ethiopia, 2002, 2005 and 2009

HR Category	2002		2005		2009	
	Number	Ratio	Number	Ratio	Number	Ratio
All physicians	1,888	1:35,603	1,996	1:35,604	2152	1: 34,986
Specialist	652	1:103,098	775	1:91,698	1,151	1:62,783
General practitioners	1,236	1: 54,385	1,221	1:58,203	1,001	1:76,302
Health officers	484	1:138,884	683	1:104,050	3,760	1: 20,638
Nurses BSc, & Diploma (except midwives)	11,976	1:5,613	14,270	1: 4,980	20,109	1: 4,895
Midwives (Senior)	862	1:77,981	1,274	1: 55,782	1,379	1: 57,354
Pharmacists	118	1:569,661	172	1:413,174	661	1: 117,397
Pharmacy Tech.	793	1: 84,767	1,171	1: 60,688	3,013	1: 25,755
Environmental HW	971	1: 69,228	1,169	1: 60,792	1,819	1: 42,660
Lab. techn & technologists	1,695	1:39,657	2,403	1: 29,574	2,989	1: 25,961
Health Extension Workers	-	-	2,737	1: 23,775	31,831	1: 2,437
Total	20,675	1:3,251	27,871	1:2,550	69,865	1:1078

As a result of the Government's consistent efforts to expand the public health workforce, the number of health professionals has increased steadily over the last decade. *Table 1* shows increases in the numbers of professionals within each cadre between

<sup>24</sup> Kebele - the smallest administrative unit in Ethiopia

<sup>25</sup> FHAPCO/MOH. Annual M and E report for 2009/2010. FHAPCO/MOH. Addis Ababa; July 2010

2005 and 2009/10. Overall the targets for low and mid-level health professionals do currently meet the WHO standards. However, there are still major shortages of medical doctors and midwives. Specific interventions to address this gap have been incorporated in HSDP-IV. Efforts are also underway to address concerns around the retention of physicians in the public sector.

Key messages on Human Resources:

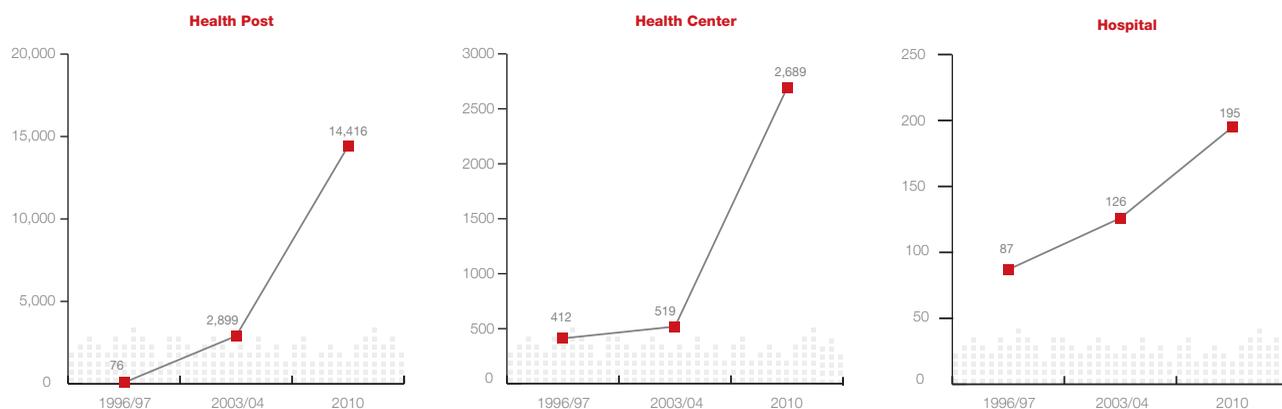
- **AIDS funding has acted as a catalyst for a new model of health sector delivery through expanded use of task shifting**
- **The massive deployment of community-based HEWs is contributing to coverage of primary care services through increased social mobilization and demand-creation**
- **AIDS funding led to a new cadre of M&E specialists deployed to work on monitoring and evaluation for both the HIV and broader health system**
- **Further research is required to substantiate the impact of new cadres of health professionals on health services and outcomes**

## 2.3. Infrastructure, medical technology and products: the contribution of the AIDS response

### 2.3.1. Health facilities construction / rehabilitation: the contribution of the AIDS response

Previously, the limited number of health facilities available to deliver both basic and comprehensive health services was cited as a key reason for the slow progress towards the achievement of the health related MDGs. In response, **AIDS resources have been used to support health facility construction, (see Figure 3 below) rehabilitation, furnishing and equipping to expand the delivery of services.**<sup>26</sup> As a result of GFATM funding, together with significant contributions by the Federal and Regional governments through 'matching fund', more health centers than ever before have been constructed. A total of 1,460 new health centers were constructed (811 (55%) by the FMOH and 649 (45%) by the respective Regional Health Bureaus (RHBs) by 2008 and a total of 2,557 health centers are expected to be finalized imminently.

Figure 3: Expansion of health facilities in Ethiopia, 1996/7-2010



As shown in Figure 3 above, the number of health facilities in Ethiopia increased from 3,544 in 2004 to 17,300 in 2010- a more than four-fold increase in 14 years. **As a result of this expansion, the potential primary health service coverage has doubled from 45% in 1996/1997 to 90% in 2008/2009.** Increased coverage of primary health care has enabled a rapid expansion of HIV/AIDS, maternal and child health services. See 2.5 for information on increased service uptake as a result of more facilities and human resources.

Key messages on Health facilities construction/ rehabilitation:

- **Matching fund from Regional health bureau has been used to supplement Federal Government investments to accelerate construction of more facilities**
- **Health facilities in Ethiopia increased from 3,544 in 2004 to 17,300 in 2010; a more than four-fold increase in 14 years**
- **As a result of more facilities being constructed the potential primary health service coverage has doubled; from 45% in 1996/1997 to 90% in 2008/2009.**

<sup>26</sup> MOH. Health and Health Related Indicators of Ethiopia. 2008/2009. MOH. Addis Ababa; 2010

### 2.3.2. Laboratory services: the contribution of the AIDS response

The first national Laboratory Master Plan developed in 2005<sup>27</sup> primarily focused on strengthening the HIV laboratory system following the introduction of the national ART program. Significant attention was given to HIV diagnosis, staging and monitoring (HIV rapid testing, hematology, clinical chemistry, and CD4 counting).<sup>28</sup> The primary beneficiaries of these advances were HIV/AIDS patients. With a view to providing access to the same quality of services to other patients, the second Laboratory Master Plan (2009-2013)<sup>29</sup> **includes a number of operational steps including,**

- **Integrating physical space of services provided** (i.e. providing laboratory services for HIV and non-HIV patients in the same facility);
- **harmonizing the procurement** of laboratory reagents and supplies;
- **extending quality assurance programs, data management systems, training and safety programs** for ART laboratory into all laboratory disciplines, and;
- **Integrating sample referral** and building upon the same sample transportation systems for all specimens, where appropriate.

A number of development partners, including **GFATM, PEPFAR/CDC, the World Bank** and the **Clinton Foundation** have been engaged in the development this second Master Plan and continue to support its implementation. The Plan aims to expand and integrate laboratory capacity for HIV, TB, malaria, and infectious disease surveillance.

Further, partner support to equipping laboratories and building capacity of human resources to carry out HIV diagnostics and management has also strengthened capacity for STI, malaria and tuberculosis -related diagnostics. This is an example of AIDS partners promoting synergies in the delivery of services and adding value to the achievement of TB, Malaria and infectious disease outcomes under MDG6.

Key messages on Strengthening laboratory services:

- **The current National Laboratory Master Plan includes specific measures to benefit diverse patients through integration of services, harmonization of procurement, management systems and referrals**
- **The Master Plan which is supported by AIDS funding provided by diverse partners provides a good example of how partners can promote synergies in service delivery**

### 2.3.3 Supply chain management systems: the contribution of the AIDS response

The need to significantly strengthen the country's procurement and supply management systems in order to mitigate against frequent stock-outs of essential commodities has been identified as a major priority. To this end, a Pharmaceutical Fund and Supply Agency (PFSA) have been established to improve efficiency in the management and supply chain of pharmaceuticals and medical supplies. PFSA is working to design and implement a logistics system, a logistics management information system as well as to strengthen the volumes of a revolving drug fund.<sup>10</sup> PEPFAR has played a key role in building the technical and managerial capacities of PFSA. Further, GFATM and PEPFAR have played prominent roles in the construction of regional hubs to facilitate the distribution of commodities and the procurement of trucks

In sum, as a result of GFATM and PEPFAR support:

- additional warehouses were constructed and regional hubs established;
- the transport capacities of the PFSA has been strengthened considerably through the procurement of 92 trucks;
- Cold rooms are currently being built and are expected to increase the national capacity by five-fold.

Key messages on strengthening the supply chain:

- **Resources from major sources of AIDS funding are helping build up the capacities of the national Pharmaceutical Fund and Supply Agency, including::**
  - Technical and managerial capacities ; and
  - Purchase of warehouses, trucks and construction of cold rooms.

<sup>27</sup> National Laboratory Master Plan to expand and integrate laboratory capacity for HIV, TB, malaria, and infectious disease surveillance, 2005

<sup>28</sup> EHNRI. Master Plan for the National Public Laboratory in Ethiopia. EHNRI. Addis Ababa; 2005.

<sup>29</sup> EHNRI. Master Plan for the Public Health Laboratory System in Ethiopia. EHNRI. Addis Ababa; 2009.

## 2.4. Information system: the contribution of the AIDS response

Ethiopia developed its first National M & E framework for HIV/AIDS in 2003.<sup>30</sup> The national patient monitoring system for ART was adopted in 2005 and is being used in all ART facilities. M & E training is incorporated into ART training modules.<sup>31</sup> Data clerks have been trained and deployed to all health facilities providing ART to roll out the implementation of this standard patient monitoring system throughout the country. While these data clerks have been focusing primarily on HIV patient monitoring, in many instances their skills have served to enhance data management capacities at the health facility level.

In parallel, re-engineering the broader health management information system (HMIS) at all levels of the health service delivery system has been a priority during the last five years. PEPFAR has provided significant support to the establishment of the national HMIS and also the training of M & E specialists working across the whole health system. The vertical M & E system designed for HIV is now integrated within the new comprehensive HMIS design and diverse partners are contributing towards its full-scale implementation

Key messages on Information system:

- **The M & E system designed for HIV is now integrated within the new comprehensive HMIS design. The skills of data clerks deployed for HIV patient monitoring are helping to improve data management capacities at facility level and M & E specialists trained through AIDS-funding support are supporting the general health system**

## 2.5. Service Delivery: the contribution of the AIDS response to the organization, delivery and uptake of services

A major aim of Ethiopia's health policy and successive phases of the HSDP has been to strengthen the health system to provide universal primary health care and institutionalize community-based services. In line with this aim maternal and child health (such as ANC, delivery, IMNCI, immunization) and HIV/AIDS services (such as HCT, ART etc) have been decentralized and are increasingly integrated at each level of service delivery (primary, secondary and tertiary).<sup>10</sup> Integration of services at primary care level provides important opportunities for synergies and in doing so allows more cost-effective delivery of health services. (**Annex 1**) presents a schematic outlining the different services provided, the HRH capacity, and catchment population at each level of service delivery).

Substantial domestic and international resources have been channeled to strengthen the health system in recent years as well as to streamline and improve the delivery of a range of health services. The following sections present specific examples of how - through innovative programs and synergies, improvements made to service delivery (largely supported by AIDS funding) can contribute to attaining MDGs 4 (child health), 5 (maternal health) and 6 (AIDS, TB, Malaria and other major diseases).

### 2.5.1. MDG 4: Contribution of the AIDS response to Child Health, and vice-versa

As a result of HSS efforts in Ethiopia, the number of health facilities providing Integrated Management of Childhood Illnesses (IMNCI) services increased from 303 in 2007 to 1,011 in 2009. Ethiopia has also introduced fixed-dose combination drugs (FDCs) for pediatric AIDS patients and dried blood sample (DBS) bundles to collect dried blood samples from infants at the point of care in more than 170 health facilities providing HIV services. As a result:

- 4,087 early infant diagnostic HIV tests have been performed in 2010, a 122% increase from 2007; and
- 13,305 children had been ever started on ART, while 9,992 were on ART at the end of 2009. The ART coverage among eligible children has increased to 48% in mid-2010.<sup>14</sup>

A study conducted to evaluate the short-and intermediate-term impacts of the HEP on child and maternal health indicators<sup>32</sup> Showed that the program has:

- Significantly increased the proportion of children fully and individually vaccinated against tuberculosis, polio, diphtheria-pertussis-tetanus (DPT) -hepatitis-B and Haemophilus influenzae, and measles; thereby contributing to reduced child mortality (MDG 4).
- Increased significantly the proportion of children and women using insecticide treated bed nets for malaria protection in those villages where the HEP is active; **thereby contributing to reduced child mortality (MDG 4), maternal (MDG5), and reduced malaria prevalence (MDG6).**

<sup>30</sup> FHAPCO/MOH. National M and E Framework for 2003/4-2007/8. FHAPCO/MOH. Addis Ababa; 2003

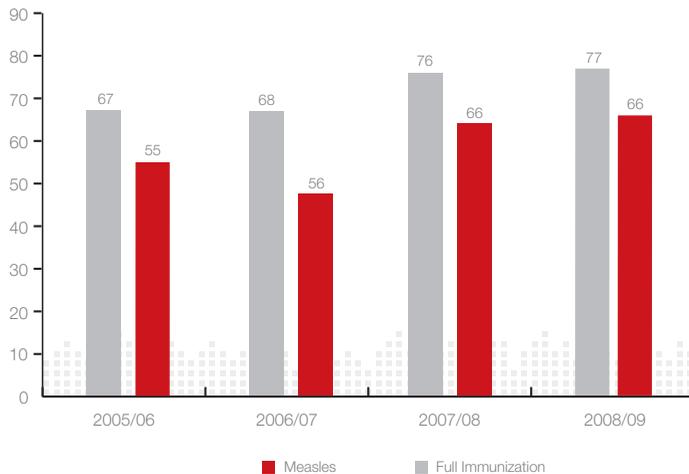
<sup>31</sup> FHAPCO/MOH. Monthly ART Update of Ethiopia. September 2005.FAPCO/MOH. Addis Ababa; October 2005.

<sup>32</sup> Global Development Network 1999-2009. Impact Evaluation of the Ethiopian Health Services Extension Program: A Non-experimental Approach; 2009

Key messages: on Expanding service delivery for MDG4:

- **Decentralized and integrated HIV-related services are promoting increases in early infant diagnostic testing and ART coverage among children**
- **Expansion of sites delivering IMNCI services, coupled with increasing number of HEWs focusing on promotion of home based child healthcare practices have increased immunization coverage and child survival (under-five child mortality rate dropped significantly from 204 per 1000 live births in 1990 to 101 in 2008)**

Figure 4: Increasing immunization coverage in Ethiopia, 2005/2006-2008/2009



Source: MOH, 2010

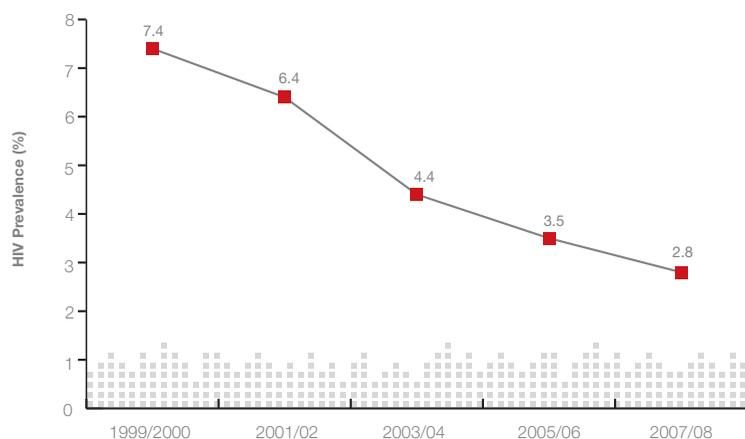
### 2.5.2. MDG 5: Contribution of the AIDS response to Maternal Health and vice-versa

Following the launch of 'Making Pregnancy Safer' in 2001, substantial investments have been made to improve access and quality of maternal health services that also have a bearing on HIV and AIDS outcomes. For example, integrated MNCH services provide a solid platform for effective referral between the prevention of HIV transmission from mother to child (PMTCT) and pediatric HIV services. Likewise, systemic advances designed primarily to improve PMTCT, early infant diagnosis and treatment can also help to enhance the broader MNCH services in which they are embedded. Expanding access to PMTCT services is influenced mainly by ANC coverage and care delivery by skilled health personnel.

Efforts to promote universal primary health care coverage through the HEP have also been important in supporting MDG5. A study conducted to evaluate the short-and intermediate-term impacts of the HEP on child and maternal health indicators found that **women in villages where the program is active appeared to make their first contact with a skilled health service provider much earlier during pregnancy** than those in villages where the program is not active.

Although national ANC coverage has improved in recent years, it remains relatively low (68%), as does coverage of skilled birth attendance 34%. **ANC coverage** was 68% in 2008/9 up from 46% in 2004/5. This means that of the estimated 2.9 million pregnant women in 2008/9, 1.9 million (68%) had attended at least one ANC visit. There **has been a marked reduction in the prevalence of HIV among pregnant women who attended ANC**; possibly attributable in part to the integration of HIV-related services across the country. ANC sentinel surveillance data for HIV indicates that prevalence has dropped from 7.4% in 1999/2000 to 2.8% in 2007/2008 (see Figure 5 below). Prevalence among the 15 to 24 age group has also dropped significantly from 12.4% in 1999/2000 to 3.5% in 2007/2008.

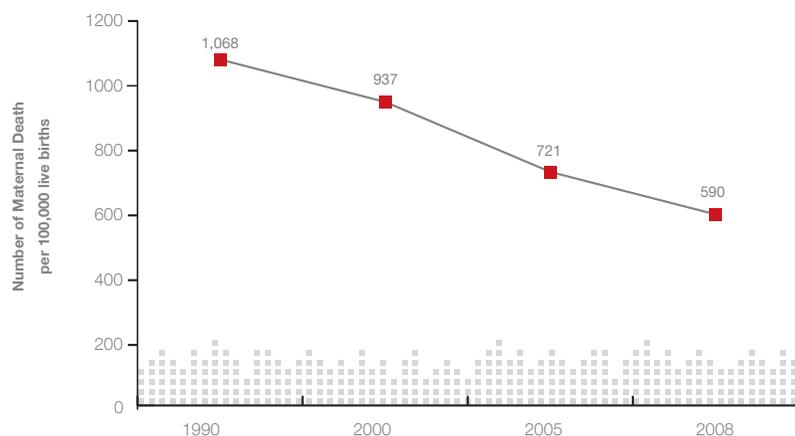
Figure 5: Decline in HIV prevalence among pregnant women in Ethiopia, 1999 - 2008



Source: MoH, 2010

There have also been substantial investments to improve access and quality of maternal health services in terms of the procurement of equipment for clean delivery and basic and comprehensive emergency and obstetric care. Although still lagging a long way behind target, there has been an increase in deliveries assisted by **skilled health personnel**; reaching 34% in 2009 from 15% in 2004/5. As a result of the introduction of HEWs at community level, clean and safe delivery by HEWs increased to 12% in 2008/9. Clean and safe delivery greatly reduces the risk of HIV transmission during delivery thereby contributing to the achievement of MDG 6.

Figure 6: Reduction in maternal mortality ratio in Ethiopia, 1990-2008



Key messages on Expanding Service delivery for MDG 5:

- **A combination of key interventions are contributing to the steady reduction of Ethiopia's maternal mortality ratio (which has decreased by 45% from 1068 in 1990 to 590 in 2008 (Figure 6).<sup>33</sup> While difficult to attribute this reduction to specific interventions, two important factors have undoubtedly contributed:**
  - A stronger health system that permitted an increased access and utilization of maternal health services;
  - The decentralization of services to the community level through the HEP

*Both of these efforts have been strongly supported by AIDS funding*

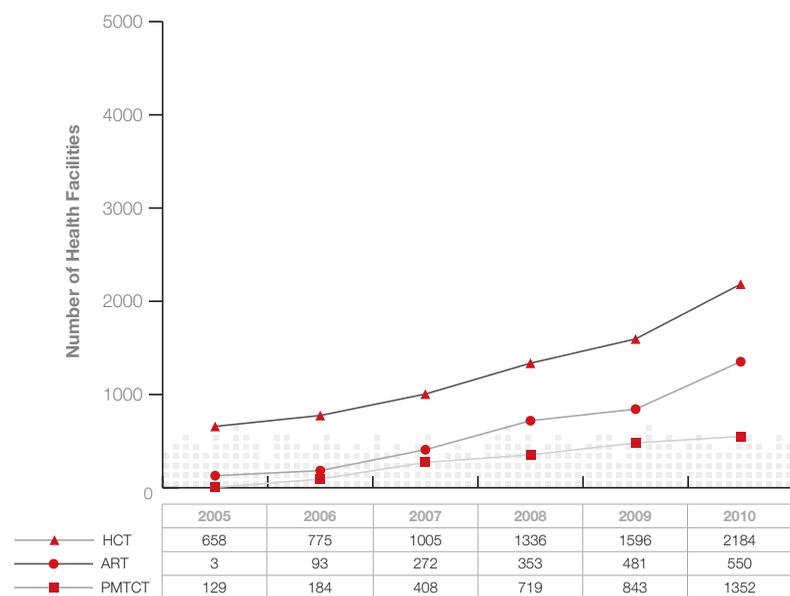
<sup>33</sup> Hogan MC, Foreman KJ, Naghavi M, Ahn SY, Wang M, Makela SM, et al. Maternal Mortality for 181 countries, 1990-2008: a systematic analysis of progress towards Millennium Development Goal 5. Lancet; 2010; 375:1609-1623.

### 2.5.3. MDG 6: AIDS, TB, Malaria and other major diseases, and vice-versa

Ethiopia's current health policy, premised on the decentralization of health governance to *woredas*<sup>34</sup> and *kebeles* and the focus on expanding primary health care through HEP, has created a favorable environment for expanding, integrating and strengthening HIV prevention and control services. In turn, strengthened and integrated HIV services are contributing to broader health gains such as increasing access to STI and counseling services, and integrating the delivery of antenatal, delivery and postnatal care with PMTCT services.

Figure 7 shows the steady increase in the number of facilities providing HIV-related services and Table 2 shows how access to HIV-related services has also increased significantly over the last five years.

Figure 7: Number of health facilities providing HIV-related services in Ethiopia, 2005-2010



Source: FHAPCO/MOH 2010

Table 2: The number of people receiving HCT, ART & PMTCT services in Ethiopia, 2005-2010.

Year	HCT (annual)	Ever started on ART (cumulative)	PMTCT (annual)
Mid 2004-mid 2005	436,854	8,278	1,314
Mid 2005-mid 2006	564,351	42,195	2,208
Mid 2006-mid 2007	1,922,666	97,258	3,967
Mid 2007-mid 2008	4,559,954	150,136	4,478
Mid 2008-mid 2009	5,853,472	210,637	6,466
Mid 2009-mid 2010	9,445,618	268,934	6,990

As shown in the table above, parallel to the increase in the number of facilities providing HCT, ART and PMTCT services (HCT sites more than trebled between 2005 and 2010, ART sites increased nearly 200-fold and PMTCT sites more than 10-fold) the number of people using the services has also increased significantly between 2005 and 2010:

- cumulative ART intake increased 30-fold;
- annual HCT grew over 20-fold; and
- PMTCT intakes have grown over 5-fold.

<sup>34</sup> A Woreda is an administrative division of Ethiopia (managed by a local government), equivalent to a district

Clearly, complementary factors, such as the free ART program have played a role in increased utilization by removing barriers to access. **However, the importance of the infrastructure and systems in place to deliver, monitor and report on the services cannot be overemphasized.**

The sections below outline clearly how HIV and non-HIV related services have benefited, as a result of the Government's policy to decentralize and focus on delivering primary care while at the same time strengthening the overall health system.

**HIV Counseling and Testing (HCT):** HCT uptake has increased from less than half a million between mid-2004 and mid-2005 to more than 9.4 million between mid-2009 and mid-2010; an increment of over 20 times. **Aside from providing an HIV-specific service, HCT also presents an opportunity to address STI prevention. Additional counseling cadres have also been introduced to strengthen the service mix at different levels.**

**ART services:** Recent service delivery reports indicate that ART coverage has increased to 57% (percentage of PLHIV currently on ART of the total eligible by mid-2010), from the baseline of 1.6% in 2005. The rapid expansion of ART services at both hospital and health centers over the last five years has greatly contributed to improved coverage of treatment and improved survival of patients. In Addis Ababa alone a 50% reduction has been registered in AIDS-related deaths at population level. At national level, the minimum survival rate of people receiving ART was found to be 78.6% at six months, 72.5% at 12 months, and 64.6% at 24 months.<sup>35</sup>

The decentralized ART program officially began in 2003 through a fee-based scheme. The delivery model shifted from a hospital-based program - largely centralized and run by physicians - to a decentralized program implemented at primary health centre level (ART clinics in health centers) run either by health officers or clinical nurses trained in ART delivery. The **Government has benefited from important developments and lessons learned through the global AIDS response** (such as reduction in prices of ARVs) and it has taken several steps in order to further increase access to ART, including

- introducing tax exemption;
- standardizing the use of ARV drugs;
- reducing cost of drugs through international agreements;
- importing generic drugs where appropriate;
- partnering with international agencies; and
- adopting a public health approach to ART delivery.<sup>36</sup>

Around 400,000 PLHIV are estimated to need ART by the end of 2010<sup>37</sup> and in order to ensure universal access, a nurse-led and decentralized primary health care model of ART delivery continues to be pursued. The delivery model is organised around *health networks and catchment areas*; which means that health centers receive mentorship and laboratory support from nearby hospitals.

Decentralisation of ART services is also likely to have reduced burdens on secondary and tertiary facilities; freeing up health worker capacity to respond to other priority health needs.

**The Millennium AIDS campaign of Ethiopia.** The combined effect of service expansion and social mobilization interventions demonstrated its effectiveness during and after the Millennium AIDS campaign that was launched in Nov 25/2006, on the eve of the new Ethiopian Millennium. The Campaign ran in three phases until September 2008 and resulted in dramatic increases in HCT, pre-ART care and ART uptakes. This was achieved through: a) exploiting interventions such as community conversations to create demand in the community, b) increasing the capacity of entry points and c) ensuring the availability of adequate ART services.<sup>38</sup> The upwards trends in service uptakes enabled through MAC-E have been sustained to date, by the well-functioning and adequately equipped health system.

**PMTCT coverage** has improved in the past few years (from 5% in 2006/07 to 6% in 2007/08 and 8% in 2009/10). However, in absolute terms coverage remains low: 6,721 pregnant women received ARV/NVP during childbirth from January through December 2009 compared to an estimated 84,189 HIV-positive pregnant women.<sup>14</sup> Many of the barriers to increasing PMTCT coverage compared to other core HIV-related services include systemic challenges that require improvements to both ANC services, as well as more focus on the continuum of care at the community level.

Some progress has been made, however. When PMTCT services were first introduced in Ethiopia they were mostly provided separately from maternal and child health services, and delivered by different service providers mainly in hospitals in major cities.<sup>39</sup> This parallel delivery model did not work effectively and it was recognized as a barrier to the expansion of PMTCT services. As a result, the Ministry of Health passed a directive that PMTCT services should be decentralized and integrated within maternal and

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<sup>35</sup> FHAPCO/MOH. ART Scale-up in Ethiopia: Success and Challenges. FHAPCO/MOH. Addis Ababa; January 2009

<sup>36</sup> MOH. Guidelines for the Implementation of ART Program in Ethiopia. MOH. Addis Ababa; 2007.

<sup>37</sup> MOH. Accelerated Access to HIV/AIDS Prevention, Care and Treatment in Ethiopia. Road Map 2007-2010. MOH; 2007.

<sup>38</sup> FHAPCO/MOH. Millennium AIDS Campaign-Ethiopia, Nov 2006-Aug 2007. FHAPCO/MOH. Addis Ababa; 2007

<sup>39</sup> MOH. Guidelines for PMTCT in Ethiopia. MOH. Addis Ababa; 2007.

child health services.<sup>40</sup> Since then, **PMTCT services have been made available at primary health care level including at health posts delivered by HEWs and integrated with antenatal, delivery and postnatal care services.** As a result, the number of facilities providing PMTCT services and the number of pregnant women being tested for HIV has increased significantly:

- 1352 facilities providing PMTCT in 2010 compared to 129 in 2005;
- HIV-positive pregnant women who received antiretroviral drugs prophylaxis has also increased from 3,967 to 6,990 during the same period.<sup>20</sup>

Further efforts to increase PMTCT uptake, such as improving quality of service through sensitization of service providers, addresses the same attitudes found to be service access barriers to ANC and SRH services, especially among young people.

**Therefore PMTCT sensitization efforts can also contribute to broader gains for the health sector.**

**TB/HIV integration** Integrated management of TB/HIV services is also known to contribute to reduced morbidity and mortality related to both diseases. In Ethiopia TB/HIV collaborative work began in 2004 in six hospitals and three health centers. It now covers over 300 health facilities and the percentage of TB patients counseled and tested for HIV has increased from 10% in 2006 to 80% in 2009.<sup>41</sup> **These impressive gains made through integrating services are expected to contribute significantly to the achievement of MDG 6 targets.**

Key messages on MDG6:

- **The gains made through integrating services are likely to contribute significantly to achieving MDG 6 targets**
- **PMTCT services can promote increase in service uptake in broader SRH and maternal and child health – efforts in Ethiopia should seek to actively promote these synergies in broadening PMTCT services**
- **PMTCT sensitization efforts can also contribute to broader gains for the health sector**
- **TB/HIV collaborative work that began in 2004 now covers over 300 health facilities and the percentage of TB patients counseled and tested for HIV increased from 10% in 2006 to 80% in 2009**
- **Improved health infrastructure and systems for delivering, monitoring and reporting on these expanded services have been crucial to the gains made**

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<sup>40</sup> MOH. Implementation guidelines for PMTCT in Ethiopia. MOH. Addis Ababa; 2009.

<sup>41</sup> FHAPCO/MOH. Annual M and E report for 2008/09. FHAPCO/MOH. Addis Ababa; August 2009.

## Chapter 3: Conclusions and way forward

Ethiopia is cited as a success story, both for its systemic response to HIV, and for the rapid progress it is making in strengthening its national health system. Key factors that are reported to have contributed to this success include:

- **Strong political leadership and country ownership accompanied by a robust strategic vision and clear implementation plans.** These elements have enabled the country to convincingly argue its position, outline key priorities and seek contributions to country-led desirable outcomes. As a result, Ethiopia has become one of the most successful countries in terms of resource mobilization from external sources, both for its HIV response as well as health systems support. With innovative arrangements, such as ‘matching fund’ for infrastructure development, it has also been able to mobilize additional domestic resources for HIV and other health priorities.
- **The strategic use vertically raised and channeled AIDS resources as ‘horizontal’ and ‘diagonal’ support to the health system,** is clearly supporting the attainment of all health MDGs in Ethiopia.
- **The conducive environment created by evolving paradigms in the international aid architecture, with a strong focus on aid effectiveness and country ownership.** Ethiopia has benefited from being among the first IHP+ compact countries, with participating international stakeholders having committed to providing a framework for increased aid to achieve the health-related MDGs through the HSDP. The complementary ‘spill-over’ effects or synergy gains among the different health-related MDG responses are likely to have been optimized by this strategy. Development partners confidence in Ethiopia’s ability to deliver results, has been bolstered by the country’s effective integrated health system strengthening approach to service delivery, which is helping it to progress towards all three MDGs, at the same time as promoting increased value for money.
- **Progress achieved through complementary HIV and health investment is visible on the ground. The financial resources made available within the HIV response have significantly contributed to expansion and quality of health services, especially within the primary health care structure and its operational parameters, most notably the health extension work at community level.** Remarkable progress has already been made in terms of services such as HCT and ART. Moreover, the systemic approach and reorganization of HIV-related services provide an excellent platform for addressing remaining challenges such, as scaling up of services for PMTCT and TB.
- **Despite the commendable progress, much room for improvement remains towards the attainment of health-related MDGs.** Having a strong vision, and supporting policy and strategic frameworks in place are prerequisites for accelerating improvements and sustaining gains already made. However, systemic challenges around health worker density, health care financing, quality of service and increased service demand and uptake depend on critical choices and decisions that continue to be made at different levels – from the global compacts to local-level organization of systems and delivery of services.

Specific observations and lessons learnt through Ethiopian experience include:

- **Investing in HSS requires a mid- to long-term vision,** and outcome results should not be expected immediately.
- **Over the long-term, the primary health care approach** for promotive, preventive and basic curative services at community level through the HEP is **likely to result in decreased burden to the higher tiers of the health system** and contribute significantly to the sustainability of the health sector response to the core health problems.
- **Results-oriented health systems must comprise a health care delivery system with cadres focusing on demand creation and ability to supply services.** The Ethiopian success in HCT and ART uptake was made possible by the combination of a **campaign-led approach based on strong community mobilization and the health system that has been able to meet the increased demand for services.**
- The current international trend and preference of **broad-spectrum financing resonates with the Ethiopian approach to maximizing synergy gains** between HIV/AIDS and other health-sector priorities.

## The Way forward

Ethiopia is well-placed to capitalize on progress made in several key areas and continue strengthening the common platforms for health services delivery towards the attainment of the health-related MDGs. The political commitment to the achievement of health gains has been translated into a comprehensive policy framework and strategic guidance. Remaining challenges include the following key priorities:

- **Significant investment in technical and leadership capacities** at Regional, Woreda and Kebele levels will be required to effectively Operationalize plans to meet ambitious targets.
- **Investment in innovative health financing mechanisms** such as comprehensive social health insurance, already approved by the House of Representatives, will support improvement in the core health indicators among the segments of population with financial barriers to access relevant health services. However, the scope and scale of this arrangement is limited. Similar financing mechanisms need to be established and scaled up to reduce financial barriers to access to health services and ensure universal health coverage in the country.
- **Improving the quality** of health services and **increasing the demand** for them **at community levels** in particular, also needs to be a future focus. The role of the HEP and the broader community should be fully exploited to ensure an effective and sustainable response.

# Annex 1: The Ethiopian health system tier (Adapted from HSDP IV)

## Ethiopian Health Tier System

