Twenty First Board Meeting
Geneva, 28-30 April 2010

GF/B21/4
Attachment 1

GLOBAL FUND'S ROLE AS A STRATEGIC INVESTOR IN MILLENNIUM DEVELOPMENT GOALS 4 AND 5

OUTLINE:

This report of the Policy and Strategy Committee describes the Global Fund's contribution to achieving Millennium Development Goals 4 and 5 in order to facilitate a discussion by the Board on the Global Fund's role in improving maternal and child health.

EXECUTIVE SUMMARY

1. Millennium Development Goals 4, 5 and 6 are interlinked.

i. HIV, TB and malaria place a heavy burden on the health of women and children. HIV is the leading cause of death among women of reproductive age, and HIV, TB and malaria indirectly contribute to non-pregnancy related maternal deaths. In 2008, nearly one of every five maternal deaths was linked to HIV. Malaria causes 17 percent of all deaths in children aged 0-4 years and mother-to-child transmission of HIV continues to occur, especially in sub-Saharan Africa.

ii. The global MMR was estimated to have declined from 422 per 100,000 live births in 1980 to 320 in 1990. It reached 251 in 2008 and was on pace for further declines. Developing countries, in particular, had made substantial progress toward MDG 5, although only 23 countries are on track to achieve the target of lowering the MMR by 75% between 1990 and 2015. The study showed that nearly one out of every five maternal deaths – a total of 61,400 in 2008 – could be linked to HIV and that progress in reducing maternal mortality has been slowed by the ongoing HIV epidemic: many of the countries with large populations affected by HIV have had the most difficulty reducing their MMR.

2. Global Fund financing for HIV, TB and malaria contributes to improving maternal and child health.

i. Increased health expenditures at a macro level: The Global Fund is a major contributor to development assistance for health, thereby supporting low- and middle-income countries to reach the WHO-recommended target health expenditure of USD 45 per capita. In Rwanda, for example, nearly one-third of all donor contributions to health in 2006 were received from the Global Fund.

ii. Promoting gender equality and an enabling environment for women and girls: The Global Fund's Gender Equality Strategy promotes support to vulnerable women and girls. In Eritrea, the HIV grant supports life-skills education and income-generating activities and sensitizes health care workers, law enforcement officials and policy makers to address gender-based violence.

iii. Supporting a continuum of interventions for women and children: The Global Fund supports a range of high-impact HIV, TB and malaria interventions across the continuum of pre-pregnancy, pregnancy, birth and child care. These include condoms to prevent HIV and sexually transmitted infections and assist family planning; antiretroviral prophylaxis to prevent mother-to-child transmission of HIV and treatment for HIV-positive women and children; malaria prevention and treatment for pregnant women and children; TB screening, diagnosis and treatment; and care for orphans and vulnerable children.

iv. Strengthening health systems: Global Fund investments are strengthening health and community systems, thereby allowing countries to expand primary care for women and children. In Malawi, for example, the Global Fund has supported the rapid scale-up of Health Surveillance Assistants, who provide not only HIV, TB and malaria services but also supervision of traditional birth attendants, disease surveillance, family planning and nutrition advice and community-based care.

3. More strategic use of existing opportunities could accelerate progress towards MDGs 4 and 5.

i. With its current portfolio of investments and ability to rapidly channel large funds to countries, the Global Fund can assist in the scale-up of client-centered HIV, TB, malaria services along with services for maternal, child and sexual and reproductive health.

ii. The objective of this paper is to facilitate a discussion by the Board on the Global Fund's role as a strategic investor in maternal and child health.

PART 1: BACKGROUND

1.1 HIV, TB and malaria place a heavy burden on the health of women and children, making progress in achieving the three health-related Millennium Development Goals (MDGs) 4 (reducing child mortality), 5 (improving maternal health) and 6 (combating HIV, malaria and other diseases) interlinked. HIV is the leading cause of death among women of reproductive age (15-44 years), and HIV, TB and malaria are common indirect causes of maternal deaths. Nearly 80 percent of malaria deaths worldwide occur in children, and around 2 million children are living with HIV, mostly infected through mother-to-child transmission.[1,2]

1.2 Africa bears a disproportionately high burden of HIV, TB and malaria, accounting for two-thirds of all global deaths from these diseases. Among women of childbearing age, around 51 percent of all deaths are caused by HIV, TB and malaria; with HIV alone accounting for 46 percent (Figure 1). In children, malaria directly accounts for nearly 17 percent of deaths (Figure 2) and also interacts with other common causes of child death to increase overall mortality among children.[3] Around 430,000 children were newly infected with HIV in 2008, most through mother-to-child transmission in this region.

Figure 1: Causes of death among women of reproductive age (15-44 yrs) in Africa

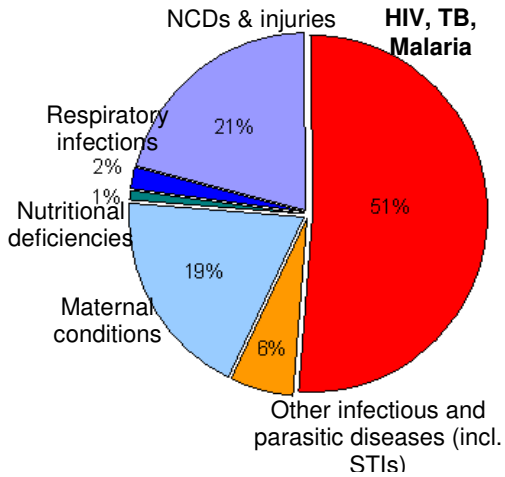
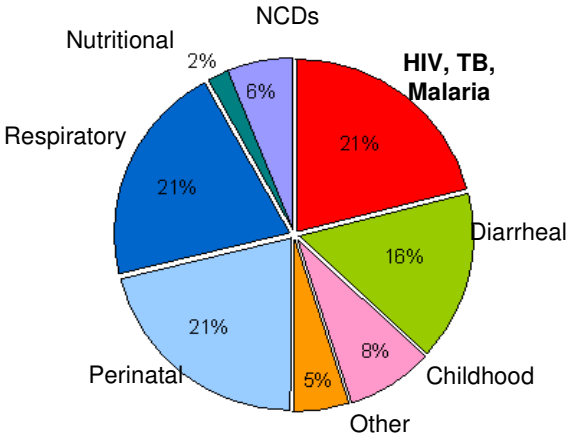


Figure 2: Causes of death among children (0-4 yrs) in Africa



Source: Global Burden of Disease: 2004 Update. World Health Organization, 2008

1.3 HIV, TB and malaria directly cause a large disease burden among mothers and children, and indirectly contribute to non-pregnancy related maternal deaths.[4] In South Africa, for example, maternal mortality in HIV-positive women is more than six times higher than in HIV-negative women[5]. In another study in South Africa, at least 38 percent of all maternal deaths were shown

[1] *Global Burden of Disease: 2004 Update. World Health Organization, 2008*
[2] *Towards universal access: Scaling up priority HIV/AIDS interventions in the health sector: Progress Report 2009.* WHO, UNICEF, UNAIDS, 2009 (Page 88).
[3] WHO. Africa Malaria Report, 2003
[4] Cross S. Et al. What you count is what you target: the implications of maternal death classification for tracking progress towards reducing maternal mortality in developing countries. Bull World Health Organ 2010;88:147-153.
[5] Black V et al. Effect of human immunodeficiency virus treatment on maternal mortality at a tertiary center in South Africa: A 5-year audit. Obstetrics and Gynecology 114 (2), 292-299, 2009.

to be caused by non-pregnancy related causes, mainly HIV, TB and pneumonia.[6] An autopsy study in Mozambique in 2002-2004 attributed 13 percent of maternal mortality to HIV-related conditions and 10 percent to severe malaria.[7] In a study in Zambia, 58 percent of maternal deaths were caused by indirect, non-obstetric causes, the majority of which were linked to malaria and to AIDS-associated TB.[8]

1.4 A more recent study has shown that the global MMR was estimated to have declined from 422 per 100,000 live births in 1980 to 320 in 1990. It reached 251 in 2008 and was on pace for further declines. Developing countries, in particular, had made substantial progress toward MDG 5, although only 23 countries are on track to achieve the target of lowering the MMR by 75% between 1990 and 2015. The study showed that nearly one out of every five maternal deaths – a total of 61,400 in 2008 – could be linked to HIV and that progress in reducing maternal mortality has been slowed by the ongoing HIV epidemic: many of the countries with large populations affected by HIV have had the most difficulty reducing their MMR.[9]

1.5 Gender inequalities increase the vulnerability of women and girls to the three diseases, especially HIV, and result in socio-cultural and economic barriers in accessing health care. Behavioral data suggest that HIV-related knowledge is lower among young women as compared to young men, and gender norms in many settings limit women's ability to negotiate safer sex, share their HIV status or seek health care.[10] Up to 70% of women experience violence in their lifetimes, and some studies have found that the risk of HIV among women who have experienced violence is three times greater than among those who have not.[11]

1.6 While a number of countries have made progress in improving maternal and child health, overall progress in achieving MDGs 4 and 5 has been uneven. In a progress report published in 2008, the 'Countdown to 2015 for Maternal, Newborn and Child Survival' initiative found that in 2005-06, of 68 priority countries that together account for 97 percent of all maternal and child deaths, 52 were off-track to meet MDG4 the 2015 target for MDG 4 (reduce mortality in children under 5 years by two-thirds) and 56 were off-track to meet the 2015 target for MDG 5 (reduce the maternal mortality ratio by three-quarters).[12]

1.7 The 'Countdown' report also noted that of these 68 priority countries, 54 had workforce densities below the critical threshold of 2.5 health care professionals per 1000 population in 2008.[13] The importance of effective health systems to deliver a comprehensive package of services for maternal and child health is well documented, with a number of studies showing that building a cadre of professional health workers, providing an accessible network of primary and referral-level

[6] Bradshaw, D., et al. (2008). Every death counts: Use of mortality audit data for decision making to save the lives of mothers, babies, and children in South Africa. Lancet, *371*(9620), 1294-1304.
[7] Menendez, C., et al. (2008). An autopsy study of maternal mortality in Mozambique: The contribution of infectious diseases. PLoS Med, 5(2), e44.
[8] Ahmed Y et al. A study of maternal mortality at the University Teaching Hospital, Lusaka, Zambia: the emergence of tuberculosis as a major non-obstetric cause of maternal death. Int J Tuberc Lung Dis 3(8):675-680.
[9] Hogan, M. et al – Maternal mortality for 181 countries, 1980-2008: A systematic analysis of progress towards Millennium Development Goal The Lancet: DOI"10.1016/S0140-6726(10)60518-1, April 12, 2010
[10] *Women and health: Today's Evidence, Tomorrow's Agenda*, WHO, 2009.
[11] Fact Sheet on Women, Girls and HIV. UNAIDS, 2009
[12] Countdown Coverage Writing Group, *Countdown to 2015 for maternal, newborn and child survival: the 2008 report on tracking coverage of interventions*, Lancet 2008, 371:1247-58
[13] Countdown Working Group on Health Policy and Health Systems. Assessment of the health system and policy environment as a critical component to tracking intervention coverage for maternal, newborn and child health. *Lancet* 2008; 371:1284-93.

services, improving the quality of care, and ensuring social safety nets with financial protections are key determinants of improvements in maternal and child health outcomes.[14,15,16,17,18]

1.8 In 2009, at the United Nations High Level event on "Healthy Women, Healthy Children: Investing in Our Common Future", the international community agreed to a Consensus for Maternal, Newborn and Child Health with priority actions to accelerate the achievement of MDGs 4 and 5 by 2015:[19]

i. Political leadership and community engagement and mobilization
ii. Effective health systems to deliver a package of women-centred high-quality interventions:
    a) Comprehensive family planning
    b) Skilled care for women and newborns during and after pregnancy and childbirth
    c) Safe abortion services where abortion is legal
    d) Improved child nutrition and management of major childhood illnesses
iii. Removal of barriers to access and free service provision at the point of care
iv. Skilled and motivated health workers
v. Accountability for credible results

1.9 Global Fund financing is contributing to improving the health of women and children since its inception through support for HIV, TB and malaria interventions, health and community systems strengthening, and structural interventions to enhance gender equity (see Section III). In particular, the Global Fund has committed substantial funding for HIV/AIDS, TB and Malaria control in countries facing the greatest gaps in achieving MDGs 4 and 5; especially through recent funding rounds. As this financing gets disbursed over the next 5 years, it will provide opportunities to significantly accelerate progress towards MDGs 4 and 5 in these countries.

PART 2: OBJECTIVE OF THE PAPER

2.1 In February 2010, the Global Fund Board Retreat discussed the role of the Global Fund in MDGs 4 and 5 and invited the PSC "to discuss/present brief analytical background paper – outlining pros and cons of expanding or making the Global Fund's role in MDGs more explicit; and recommend a strategy for incorporating this in replenishment/resources mobilization efforts and reporting." At its meeting in March 2010, the PSC requested the Secretariat to prepare a paper on its behalf for further discussion on this issue at the 21st Board Meeting.

2.2 The objective of this paper is to facilitate a discussion by the Board on the Global Fund's role as a strategic investor in maternal and child health.

[14] *Make every mother and child count: The World Health Report 2005.* WHO, 2005.
[15] Alvarez J et al. Factors associated with maternal mortality in sub-Saharan Africa: an ecological study. *BMC Public Health* 2009, 9:462
[16] Mbonye AK et al. Declining maternal mortality ratio in Uganda: priority interventions to achieve the Millennium Development Goal. *International Journal of Gynecology and Obstetrics* (2007) 98, 285-290.
[17] Hatt et al. Did the strategy of skilled attendance at birth reach the poor in Indonesia? *Bull World Health Organ.* October 2007, 85(10).
[18] *Bucking the trend: How Sri Lanka has achieved good health at low cost - challenges and policy lessons for the 21st century.* Save the Children, 2004.
[19] *Consensus for Maternal, Newborn and Child Health,* launched at "Healthy Women, Healthy Children: Investing in our Common Future", United Nations, September 2009.

PART 3: GLOBAL FUND FINANCING TO SUPPORT MATERNAL AND CHILD HEALTH

3.1 Global Fund financing is contributing to improving maternal and child health through the following areas of support:

i. Contributing to increased health expenditures at a macro level
ii. Supporting gender equality and creating an enabling environment for women and young girls
iii. Supporting health interventions that impact the health of women and children
iv. Strengthening health systems

Contributing to increased health expenditures at a macro level

3.2 The Global Fund has become a major contributor to development assistance for health over the past years. In 2007, the Global Fund accounted for 8.3 percent of total development assistance for health – up from less than 1 percent in 2002.[20] Studies have shown that per capita health expenditures are correlated with reductions in maternal and under-5 child mortality.[21] By contributing to an increase in overall expenditures on health through its HIV, TB, malaria and system strengthening investments, the Global Fund is supporting low- and middle-income countries to reach the WHO-recommended target health expenditure of USD 45 per capita, thereby contributing to improvements in maternal and child health outcomes.

Supporting gender equality and creating an enabling environment for women

3.3 In 2008, the Global Fund adopted a *Strategy for Ensuring Gender Equality in the response to HIV/AIDS, Tuberculosis and Malaria,* which commits the Global Fund to support countries to take gender dimensions into account in their proposals and to increase investments aimed at improving the health of women and girls.[22]

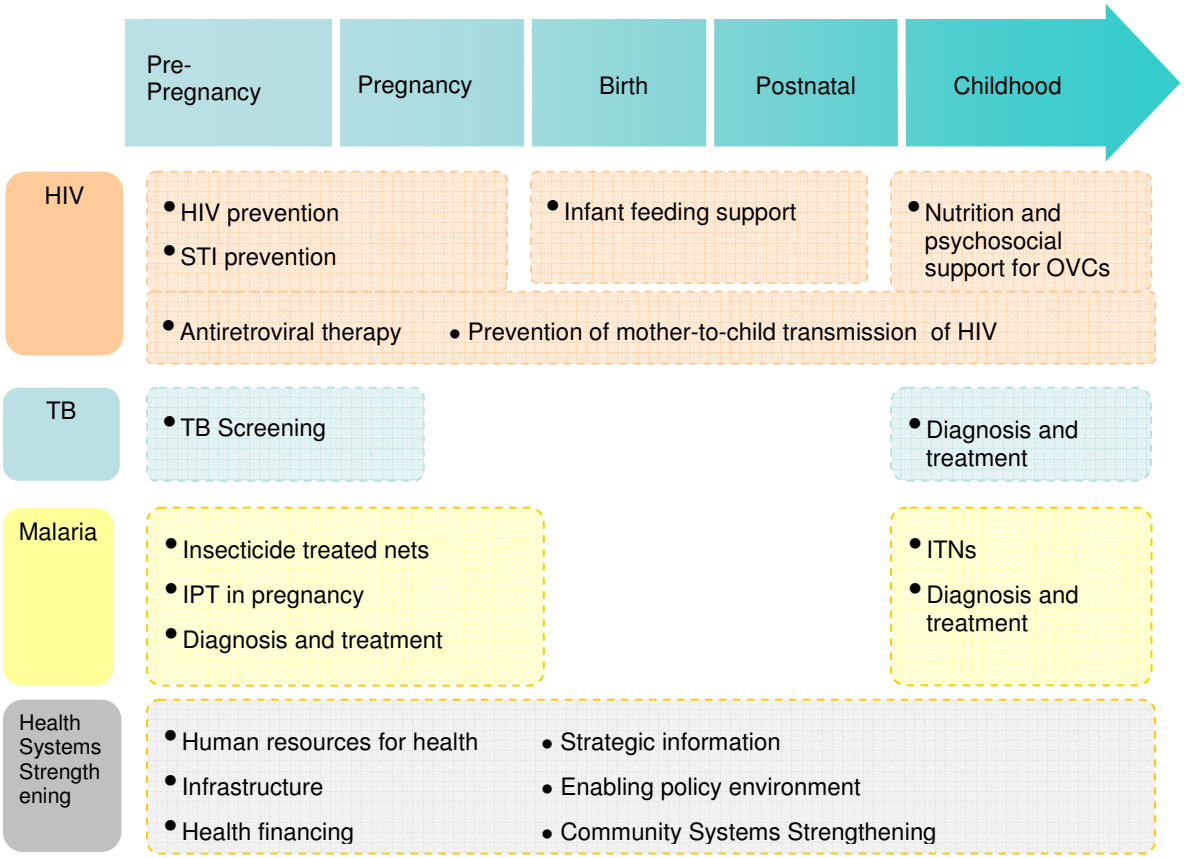
3.4 Global Fund grants are providing a range of structural interventions to enhance gender equity, protect women against gender-based violence, and provide social support and support for income-generating activities to vulnerable women. The Global Fund also promotes the participation of members with relevant gender expertise in the Country Coordinating Mechanisms.

Supporting health interventions that impact the health of women and children

3.5 Through investments in HIV, TB and malaria programs, Global Fund financing supports a wide range of internationally-recommended, high-impact interventions for women and children. These include interventions to prevent HIV, other sexually transmitted infections, TB and malaria in childbearing women, as well as interventions to provide the necessary care and support for affected women and their newborns during pregnancy, childbirth and child care. Figure 3 illustrates Global Fund investments for women and children across the continuum of care. For example, Global Fund-supported HIV programs provide prevention and screening for HIV and sexually transmitted infections (STI) to women of childbearing age; followed by antiretroviral prophylaxis to prevent mother-to-child transmission of HIV for pregnant women who test HIV-positive. HIV grants also support infant feeding counseling and early infant diagnosis, antiretroviral therapy and care for children born to HIV-positive mothers. Women living with HIV receive HIV treatment and care for their own health, and AIDS orphans and vulnerable children benefit from nutritional and psychosocial support through Global Fund financing in many countries.

[20] Ravishankar N et al. Financing of global health: tracking development assistance for health from 1990 to 2007. Lancet (2009); 373:2113-24.
[21] Bokhari F. et al. Government health expenditures and health outcomes. *Health Economics,* 16:257-273 (2007).
[22] Global Fund. 18th Board Meeting, *The Global Fund's Strategy for Ensuring Gender Equality in the response to HIV/AIDS, Tuberculosis and Malaria: The "Gender Equality Strategy",* GF/B18/4 Addendum Decision.

Figure 3: Global Fund support across the continuum of pre-pregnancy, pregnancy, birth and child care



3.6 Table 1 below provides an overview of Global Fund investments in key interventions that improve health outcomes for women and children.

Table 1: Global Fund investments in selected high-impact interventions for women and children

Intervention	Global Fund disbursements (USD, cumulative as of Dec. 2009)[23]	Global Fund support for MDGs 4 and 5 (cumulative, 2002-09)
Condom distribution	194.7 million	1.8 billion condoms distributed: *contributing to HIV and STI prevention and family planning*
Antiretroviral therapy	1.4 billion	2.5 million people on antiretroviral therapy with an estimated 60% are women: *reducing mortality and improving the quality of life of women and children with HIV*
STI diagnosis and treatment	91 million	6.8 million STI cases treated: *reducing morbidity and mortality and improving sexual and reproductive health*
PMTCT	235 million	790 000 HIV-positive women given ARV prophylaxis to prevent mother-to-child transmission: *preventing new HIV infections in children*
OVC care and support	149 million	4.5 million basic care and support services provided to OVC: *improving the quality of life of AIDS orphans*

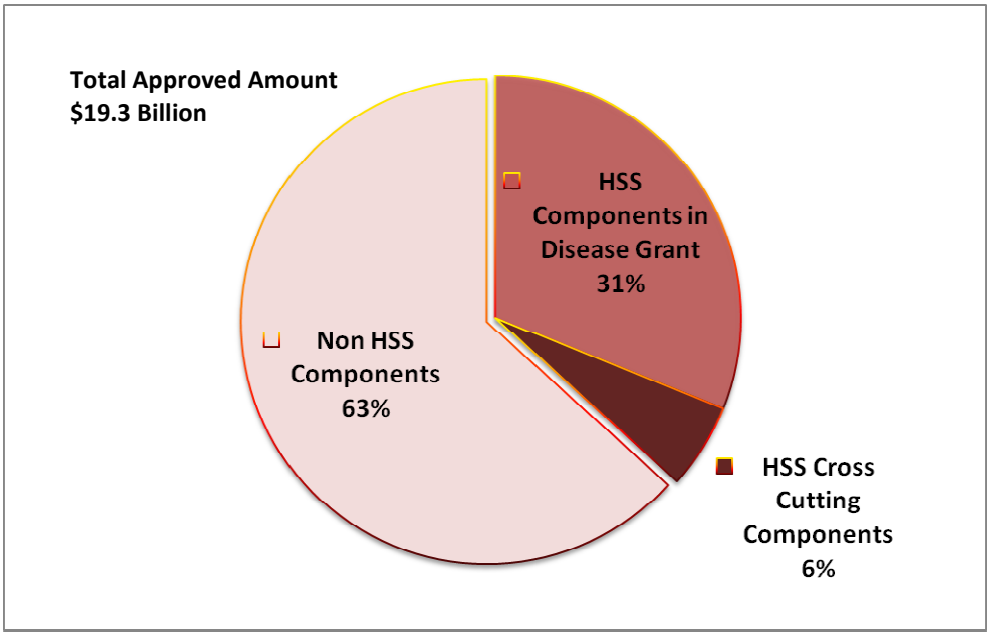
[23] Disbursements by intervention area have been estimated based on data on expenditures in these areas obtained through the Global Fund's Enhanced Financial Reporting (EFR) system.

ITNs	918 million	104 million ITNs distributed : *preventing malaria in pregnant women and children*
Malaria treatment	770 million	108 million malaria cases treated : *reducing malaria morbidity and mortality in women and children*

Strengthening health systems

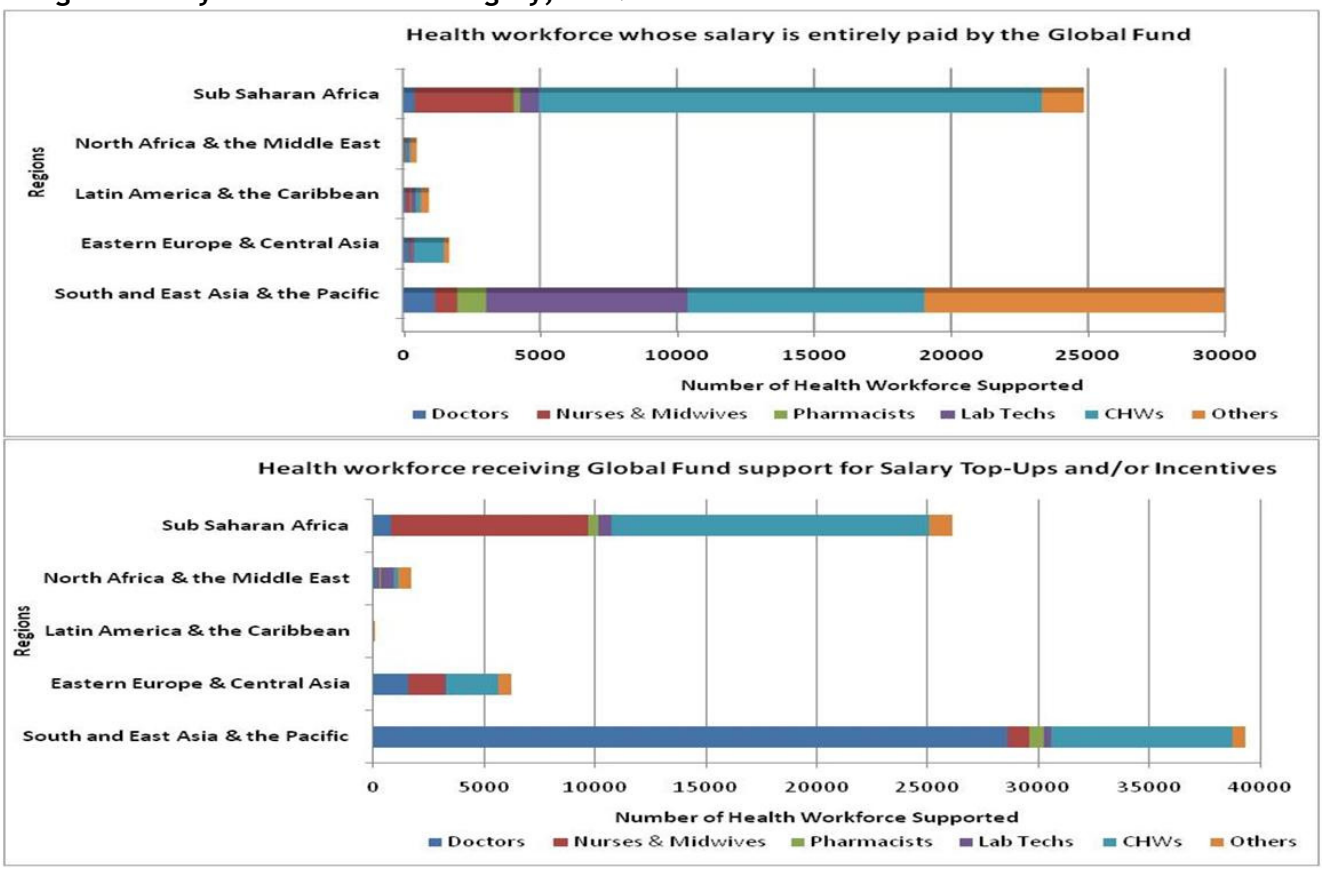
3.7 Through its investments in health systems strengthening, the Global Fund is enabling countries to address critical health system bottlenecks and accelerate the scale-up of lifesaving health interventions. Figure 4 shows that around 37% of Global Fund investments to date are for strengthening health systems (human resources, training, infrastructure and monitoring and evaluation), benefiting the three diseases as well as the health of women and children.

Figure 4: Global Fund investments in health systems strengthening



3.8 The Global Fund has invested extensively in expanding human resources capacity, including the provision of pre-service and in-service training, support for salary payments, expansion of task-shifting approaches to maximize utilization of existing workers, and the development of informal cadres of health and community workers. In a number of countries, these health workers are already providing services beyond HIV, TB and malaria prevention and care. Global Fund support to community health workers, nurses and midwives, who play a critical role in providing maternal and child health services, is predominantly focused in African countries which have poor maternal and child health outcomes. Figure 5 shows Global Fund support to health workforce salaries and salary top-ups/incentives in 2009 in different regions of the world.

Figure 5: Global Fund support to health workforce salaries and salary top-ups/incentives, by region and by health worker category, 2009



PART 4: GLOBAL FUND CONTRIBUTION TO HEALTH OF WOMEN AND CHILDREN: COUNTRY EXAMPLES

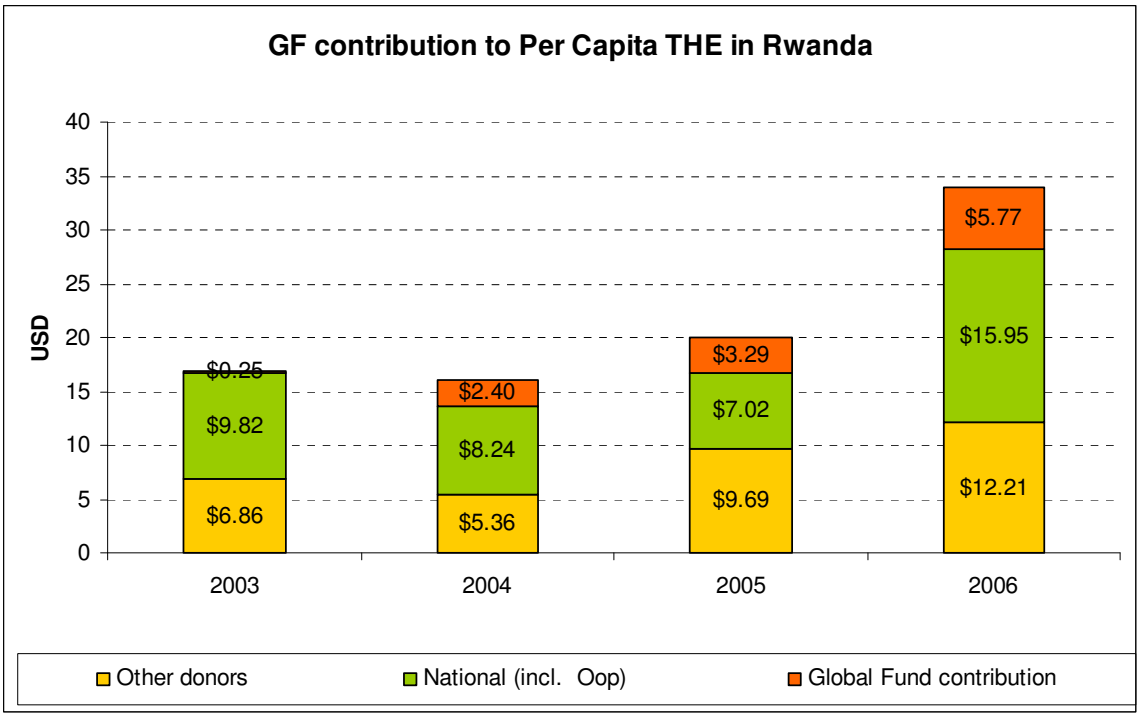
4.1 A number of countries are using Global Fund financing to improve health outcomes for women and children. With a more systematic approach to the interventions, countries which face the largest gaps in improving maternal and child health can accelerate achievements in women and children's health.

RWANDA: Contributing to increased health expenditures at a marco level

4.2 Since its inception, the Global Fund's contribution to Rwanda's Total Health Expenditure (THE) has increased steadily. As of 2006, nearly one-third of all donor contribution to the health sector was made by Global Fund, helping Rwanda reach the WHO-determined USD 45 per capita health expenditure milestone. The Global Fund has also invested heavily in building human resources for health in Rwanda over the last 7 years, with approximately $77.8 million for activities including "task shifting" and mobilizing the community health workers. Figure 6 and Table 2 show the increasing contribution of the Global Fund to THE in Rwanda.[24]

[24] Global Fund disbursement data are used.

Figure 6: Global Fund contribution to per capita health expenditures in Rwanda, 2003-2006



Source: http://www.who.int/nha/country/rwa/

Table 2: Rwanda health expenditure breakdown by donor funding (USD millions)

	2003	2004	2005	2006
THE	142.1	140.1	182	307.3
Donor contribution	59.6	67.9	118.1	162.8
GF contribution	2.1	20.9	29.9	52.2
GF % of THE	1%	15%	16%	17%
GF % of donor cont.	4%	31%	25%	32%

ERITREA: Addressing gender-based violence and supporting women in need

4.3 In Eritrea, the Round 8 HIV proposal sought to address the higher rates of HIV infection among women and the risk factors related to gender-inequalities. The proposal, with a total two-year approved funding of USD 15 million, aims to conduct a needs assessment to understand women's risk factors and vulnerabilities in all 'zobas' or regions; provide life-skills education for young girls; support vulnerable women and girls through income-generating activities; provide gender-sensitive training to health care workers, law enforcement personnel and policy makers; and review national laws, policies and enforcement realities on protection from gender-based violence. The proposal seeks to expand the number of women supported through income-generating activities from 3600 in 2009 to nearly 11 000 by 2012, providing a micro credit loan for 8600 women, conducting training sessions for women's peer groups in each 'zoba', and sensitizing all 277 male and 122 female zoba assembly members on issues related to gender, gender-based violence, female genital mutilation, and reproductive health rights.

NIGERIA: HIV prevention and care for mothers and children

4.4 In Nigeria, which accounts for the largest number of pregnant women living with HIV worldwide, the Global Fund has disbursed USD 142 million as of December 2009 to scale up the national HIV response. While the coverage of antiretroviral prophylaxis to prevent mother-to-child transmission has increased from 2 percent in 2004 to 11% in 2008, it remains low. Nigeria is one of the focus countries for the Global Fund's recent commitment to scale up effective PMTCT programs in countries with the highest burden. The recently-approved Round 9 grant will provide substantial additional financing to support the scale-up of comprehensive PMTCT services in antenatal care facilities (including family planning, management of STIs, HIV testing for pregnant women, early infant diagnosis, ARV prophylaxis and referrals for care). In addition, the Round 8 grant, signed in November 2009, is supporting the refurbishment of 925 primary health care facilities to provide integrated basic services at community level, including HIV prevention and care for women and children.

Box 1: Supporting maternal and child health through comprehensive PMTCT programs

The Global Fund supports the delivery of comprehensive PMTCT programs that include the four 'prongs' of HIV prevention and care for women and children recommended by the United Nations[25]:
1- primary prevention of HIV infection among women of childbearing age *(sexual health promotion, condom use, couples counseling and testing, addressing gender-based violence)*
2- preventing unintended pregnancies among women living with HIV *(expansion of family planning services)*
3- preventing HIV transmission from women living with HIV to their infants *(HIV testing and counseling of pregnant women, antiretroviral prophylaxis, and infant feeding support)*
4- providing appropriate treatment, care and support to women living with HIV, their children and families *(early infant diagnosis of HIV, co-trimoxazole prophylaxis for exposed children, and HIV treatment and care for women and children in need).*

For example, South Africa's Round 9 HIV proposal includes the following activities:
-Family planning counseling and services in antenatal care
-Scale-up of HIV testing and TB screening for pregnant women attending antenatal care
-Nutritional support to HIV-positive pregnant women
-Scale-up of efficacious antiretrovirals for prevention of mother-to-child transmission
-Assessment of treatment eligibility of HIV-positive women and provision of antiretroviral therapy
-Expanding early infant diagnosis and co-trimoxazole prophylaxis
-Training of 'patient supporters' to follow up the mother-baby pair, provide infant feeding guidance, promote referrals to care and adherence to antiretroviral therapy
-Engaging with men and traditional leaders to prevent gender-based violence

ETHIOPIA: Scaling up malaria prevention among children

4.5 Ethiopia is the second-largest recipient of malaria grants from the Global Fund, with USD 250 million disbursed to the country for malaria control by the end of 2009. The Round 2 grant covered funding for the procurement of 6 million long-lasting insecticide-treated nets (LLINs), estimated to cover 30 percent of households at risk for malaria in the country; and the Round 5 grant added funding to purchase an additional 9.2 million LLINs to cover 80 percent of households in rural communities. With this support, Ethiopia conducted a mass distribution of long-lasting

[25] *Strategic approaches to the prevention of HIV infection in infants: report of a WHO meeting, Morges, Switzerland, 20-22 March 2002.*

insecticide-treated nets and scaled up the provision of malaria treatments between 2005 and 2007. Inpatient malaria cases among children under 5 years fell by 73 percent between 2001-05 and 2007, and deaths by 62 percent.[26]

4.6 The Global Fund is also supporting Ethiopia to accelerate the expansion of its primary health care infrastructure and workforce under the country's Health Extension Program. Over 30 000 health extension workers, recruited from the community, have been trained and deployed in the health services between 2004 and 2009. These health extension workers have played a critical role in scaling up not only HIV, TB and malaria services, but also reproductive and child health services, especially in rural areas; disease prevention and control; hygiene and sanitation; family health services; and health education.[27,28,29.30]

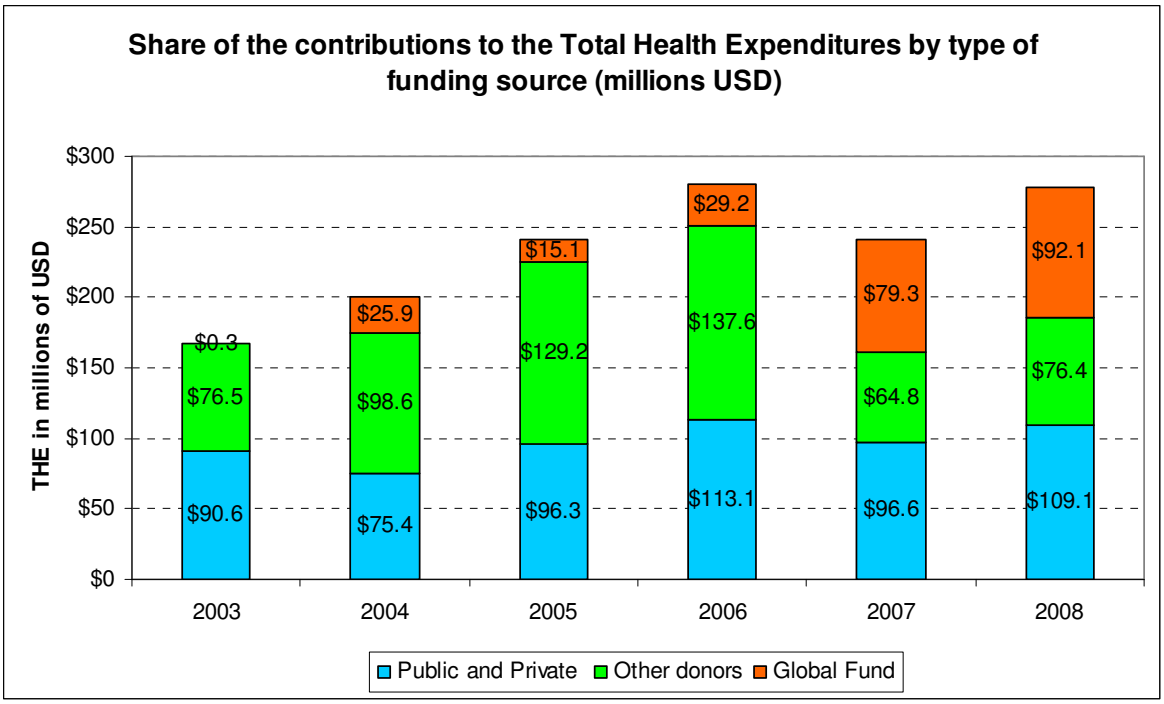
MALAWI: Building human resource capacity

4.7 Malawi is one of the top recipients of Global Fund grants and to date, the Global Fund has cumulatively disbursed about USD 309 million dollars. In 4 years, starting from 2004, Global Fund disbursements have increased by 158 percent, amounting to USD 68.6 million in 2008. (Figure 7) Since 2006, approximately 60 percent of THE in the country are financed by donors, and over half (55%) of the donor funding in 2007 and 2008 has been contributed by the Global Fund – in other words, every 3rd dollar of the THE is contributed by the Global Fund.

[26] Otten M. et al. Initial evidence of reduction of malaria cases and deaths in Rwanda and Ethiopia due to rapid scale-up of malaria prevention and treatment. *Malaria Journal* 2009, 8:14doi:10.1186/1475-2875-8-14.
[27] Assefa, Y et al. (2009). Rapid scale-up of antiretroviral treatment in Ethiopia: Successes and system-wide effects. *PLoS Med, 6*(4), e1000056.
[28] Abraha MW and Nigatu TH. 2009. Modeling trends of health and health related indicators in Ethiopia (1995-2008): a time-series study. *Health Res Policy Syst*. 2009; 7: 29.
[29] Celletti, F et al. (2010). Can the deployment of community health workers for the delivery of HIV services represent an effective and sustainable response to health workforce shortages? Results of a multicountry study. *AIDS*: January 2010 - Volume 24, p S45–S57

[30] Wakabi W. Extension workers drive Ethiopia's primary health care. *Lancet*, Volume 372, Issue 9642, Page 880, 13 September 2008

Figure 7: Increasing Global Fund contribution to Malawi's Total Health Expenditure[31]



4.8 Further, the output of the Global Fund support for training and deployment of health workers is the rapid scale-up of primary health services in Malawi (Table 3). By 2008, the workforce in the 4 main health worker categories had doubled since 2005.

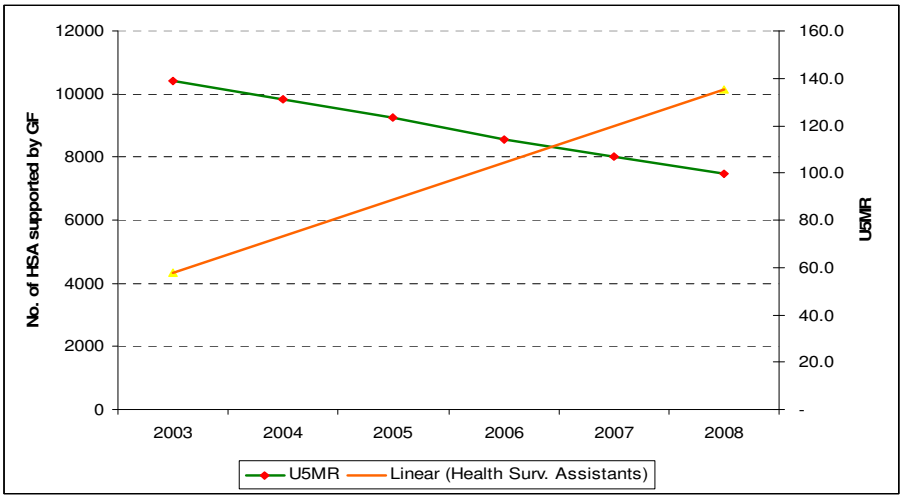
Table 3: Global Fund's contribution to expanding the health workforce in Malawi[32]

Human Resource	Availability		Percent Supported by GF in 2008
	2003	2008	
Doctors	90	177	90%
Nurses	1,932	3,185	95%
Lab Technicians	76	143	100%
Health Surveillance Assistants	4,324	10,127	100%
Total	6,422	13,632	

4.9 Health systems strengthening has increased availability of key human resources, particularly the Health Surveillance Assistants (HSAs). In addition to delivering HIV, TB and malaria services, HSAs also provide services such as the supervision of traditional birth attendants, sanitation, disease surveillance, health and nutrition advice, family planning services and community-based maternal and newborn health care[33]. This increase in supply of health services has potentially contributed to a decline in child mortality (Figure 8). While the contribution is significant, 5 years from the 2015 MDG targets, Malawi remains a low-performing country in reducing maternal mortality. However, with the majority of Global Fund support being committed in recent years, the outcomes of increased funding are yet to materialize.

[31] Source: http://www.who.in/nha
Ministry of Health. March 2007 Malawi National Health Accounts (NHA) 2002-2004 with Subaccounts for HIV and AIDS, Reproductive and Child Health, Department of Health, Planning & Policy Development, Lilongwe, Malawi.
[32] The Global Fund 2010 : Innovation and Impact. The Global Fund, 2010.
[33] Celletti F. et al. (2010). Can the deployment of community health workers for the delivery of HIV services represent an effective and sustainable response to health workforce shortages? Results of a multicountry study. *AIDS*: January 2010 - Volume 24, p S45-S57.

Figure 8: Expansion of Health Surveillance Assistants and decline in child mortality in Malawi, 2003-2008[34]



HAITI: Providing integrated services for improved outcomes

4.10 Haiti is among the first countries to have utilized Global Fund financing to successfully deliver HIV prevention and care through integration with services for TB, sexually transmitted infections and reproductive health. Haiti's Round 1 HIV grant, with total approved funding of USD 160 million[35], focused on expanding HIV prevention and reducing the impact of the HIV epidemic through interventions delivered in collaboration with the National AIDS Council and a large coalition of nongovernmental organizations.

4.11 In particular, the grant included collaboration with a non-government organization GHESKIO to provide an integrated package of primary care services including HIV counseling, AIDS care, prenatal care, nutritional support, and management of tuberculosis and sexually transmitted infections to 250 000 people in need. GHESKIO's model of expanded HIV prevention and care has been recognized as a successful example of service integration, with positive outcomes.[36] The Global Fund has also supported the expansion of a network of community health workers to provide integrated HIV and TB services in collaboration with the nongovernmental organization Partners In Health. These workers also play a key role in facilitating the uptake of primary health care services by the most vulnerable households, such as those with childhood malnutrition.[37]

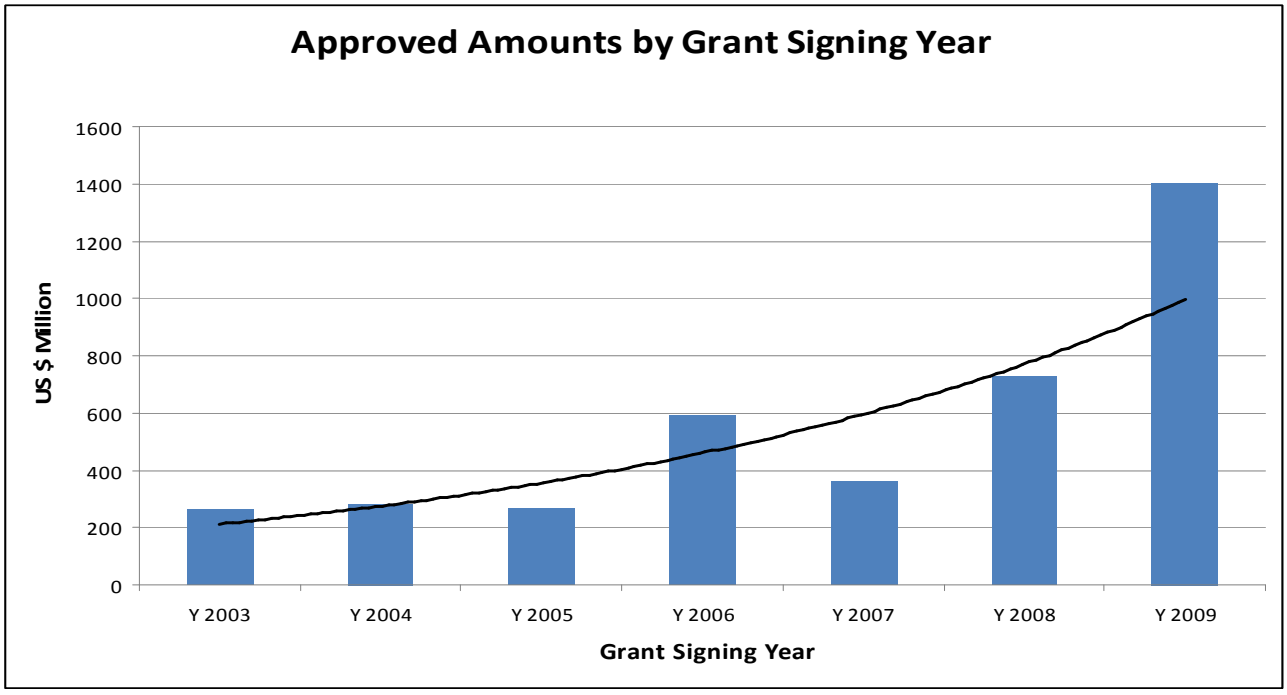
[34] www.childmortality.org
[35] Phase 1, Phase 2 and Rolling Continuation Channel.
[36] Atun R. et al. *Clearing the Global Health Fog: A systematic review of the evidence on integration of health systems and targeted interventions.* World Bank Working Paper no. 166, 2009.
[37] Mukherjee JS and Eustache FE. Community health workers as a cornerstone for integrating HIV and primary health care. *AIDS Care*, 2007; 19 (Supplement 1): S73-82.

PART 5: LOOKING AHEAD: SUPPORTING COUNTRIES WITH THE LEAST PROGRESS IN IMPROVING HEALTH OF WOMEN AND CHILDREN

5.1 The 2008 report of the *Countdown to 2015 for maternal, newborn and child survival* identified 10 countries with the least progress in reducing child mortality since 1990, and 13 countries with the highest rates of maternal mortality in the world (Tables 4, 5). These countries face large gaps in meeting needs for family planning, access to skilled attendance at birth and clinical case management for newborns and children.[38]

5.2 The Global Fund has large current investments in these countries which have made the least progress in improving maternal and child health outcomes (based on 2005-06 data) and 6 other countries that account for over half of global maternal deaths (based on 2008 data)[39], with increasing commitments in recent years (Figure 9). This rising trajectory of investments suggests that by making more strategic use of new funding which has been approved but not yet disbursed (Tables 4, 5), these countries can accelerate the scale-up of maternal, child and sexual and reproductive health services and begin to improve maternal and child health.

Figure 9: Global Fund approved amounts in 22 countries with the least progress in reducing maternal and child mortality (combined, 2005-06 data), by year of grant signature



Note: In addition, USD 177 Million has been signed in 2010. USD 856 million has been approved for Phase 1 of Round 8/9, yet to be signed into grants.

[38] Countdown Coverage Writing Group, *Countdown to 2015 for maternal, newborn and child survival: the 2008 report on tracking coverage of interventions*, Lancet 2008, 371:1247-58

[39] The 22 countries include 10 countries with the largest gap in achieving MDG4 and 13 countries with the largest gap in achieving MDG5, with one overlap.

Table 4: Global Fund life-time budgets and pipeline amounts until 2015 in countries with the least progress in reducing child mortality since 1990 (Countries identified as the lowest performing as per the *Countdown to 2015 for maternal, newborn and child survival*)

Country	Child mortality per 100,000 (2006)	Total investments (USD million)	
		Lifetime budget	Pipeline amounts available until 2015
Chad	209	174	147
Cameroon	149	228	108
South Africa	69	385	194
Equatorial Guinea	206	33	9
Congo, Republic of	126	153	134
Kenya	121	445	239
Lesotho	132	262	204
Zimbabwe	105	610	474
Swaziland	164	193	110
Botswana	124	27	14
TOTAL		2,508	1,629

Table 5a: Global Fund life-time budgets and pipeline amounts available until 2015 in countries with the highest rates of maternal mortality (Countries identified as the lowest performing as per the *Countdown to 2015 for maternal, newborn and child survival*)

		Total investments (USD million)	
Country	**Maternal mortality per 100000 (2005-06 data)**	**Lifetime budget**	**Pipeline amounts available until 2015**
Sierra Leone	2100	185	139
Niger	1800	130	48
Afghanistan	1800	148	101
Chad	1500	174	147
Somalia	1400	167	84
Angola	1400	236	131
Rwanda	1300	960	631
Liberia	1200	183	121
Congo (Democratic Republic)	1100	1158	838
Malawi	1100	861	552
Nigeria	1100	1349	874
Guinea-Bissau	1100	111	96
Burundi	1100	310	220
Total		**5,971**	**3,980**

Table 5b: Global Fund life-time budgets and pipeline amounts available until 2015 in countries that account for over half of the global maternal deaths

Country	Total Maternal Deaths in 1000s (2008 data)	Total investments (USD million)	
		Lifetime budget	Pipeline amounts available until 2015
India	68.3 (41.6-106.2)	1'940	1'429
Nigeria	36.7 (22.4-57.0)	1'349	874
Pakistan	20.1 (12.3 -31.3)	339	284
Afghanistan	20.0 (7.5-43.1)	148	101
Ethiopia	18.2 (11.1-28.8)	1'902	811
Congo (DRC)	15.4 (9.0-24.7)	1'158	838
Total		**6'836**	**4'337**

Estimates of deaths in countries from Hogan, M. et al – Maternal mortality for 181 countries, 1980-2008: A systematic analysis of progress towards Millennium Development Goal The Lancet: DOI"10.1016/S0140-6726(10)60518-1, April 12, 2010.
Financing amounts from the Global Fund Grant Database.

5.3 The Global Fund portfolio in these countries includes a number of entry points which can be capitalized upon to expand the delivery of health services for women and children and improve outcomes. Table 6 illustrates such entry points in Chad.

Table 6: Example of potential interventions in the current Global Fund portfolio in Chad that can be built upon to accelerate progress towards MDGs 4 and 5

Maternal health	Child health	HSS and CSS
- PMTCT services as part of ANC - Malaria prevention during pregnancy as part of ANC	- ITN distribution through antenatal care and the expanded vaccination program - Breastfeeding supplements and baby foods for children born to HIV-positive mothers - Nutritional, psychosocial and income-generating support for OVC - Legal review and legal support for OVC	-Training health workers (including midwives) in HIV and malaria prevention and management -Building laboratory capacity for HIV, TB and malaria diagnosis

PART 6: A MORE STRATEGIC APPROACH TO GLOBAL FUND SUPPORT FOR MATERNAL AND CHILD HEALTH

6.1 In addition to current financial commitments, the Global Fund will optimize existing interventions to improve the health outcomes for women and children by:

i. Identifying areas to gain efficiencies and greater integration of HIV, TB and malaria services with related maternal, child, and sexual and reproductive health services.
ii. Investing further in strengthening health and community systems to promote equitable outcomes for women and children.
iii. Strengthening performance monitoring processes to track outcomes and impact with sex and age disaggregation.
iv. Ascertaining allocative and technical efficiency gains in the portfolio

6.2 At this exciting juncture several opportunities exist for the Global Fund to contribute further to meeting the MDG 4-5 targets by 2015.

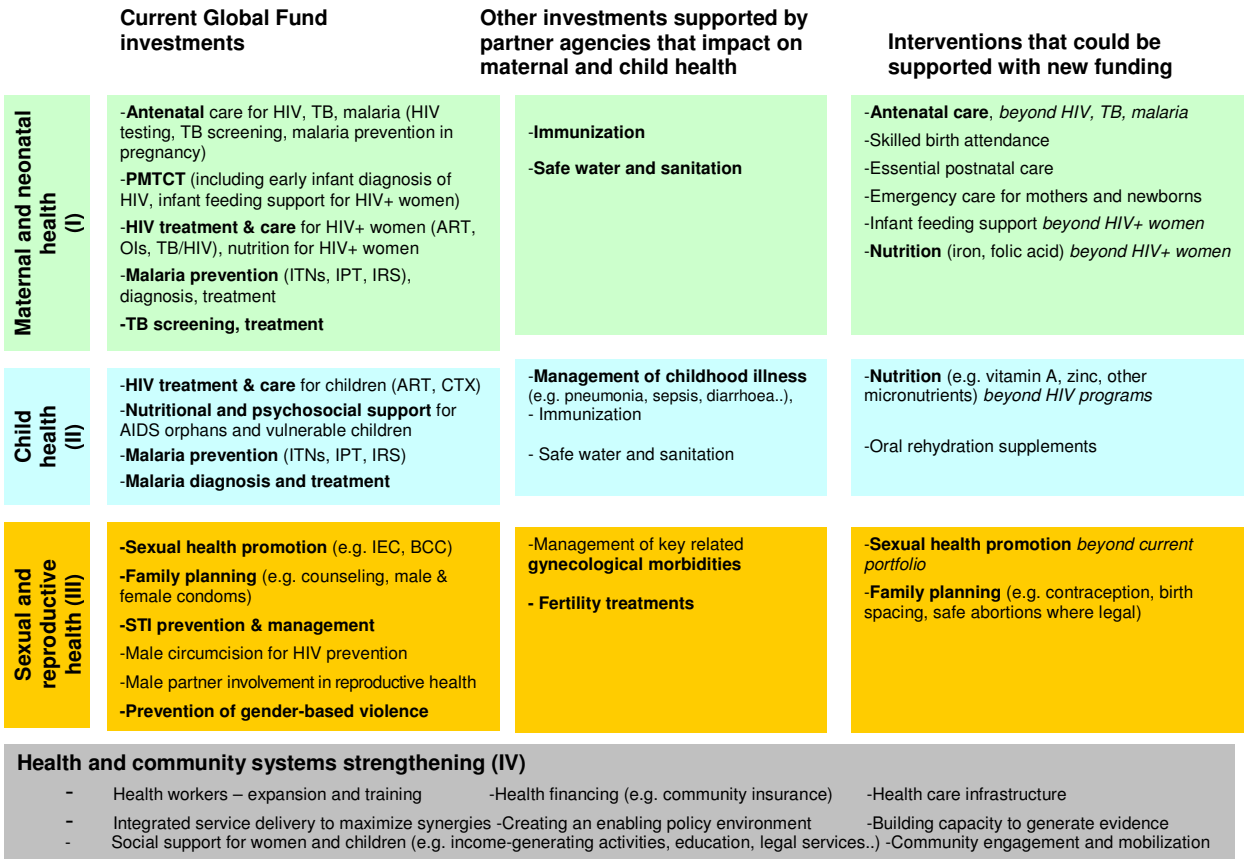
Build on the current portfolio to support an integrated package of basic services for women and children:

i. Build on current investments to support the *delivery of an integrated package of basic services to improve maternal and child health*. Such a package would include other components of basic antenatal care such as,
   a) screening for and treatment of anemia,
   b) hypertension, diabetes or sexually transmitted infections;
   c) expansion of skilled care at birth;
   d) provision of nutritional supplements for women and children in need;
   e) information and counseling about diet, hygiene, birth and infant feeding; and essential neonatal care.

ii. Use existing funding opportunities to strengthen health systems for expanded delivery of maternal and child health services, including human resources and financial protections for all women and children in need.

iii. Expand performance monitoring processes to include additional indicators to measure progress in reaching maternal and child health outcomes.

The graphic below better illustrates the continuum of different interventions that Global Fund will continue to support with existing funding, as well as those supported by partner agencies. The third column describes interventions that the Global Fund could support with new funding, capitalizing on the Global Fund's comparative advantage.



PART 7 : CONCLUSION

7.1 Examples from a number of countries show how Global Fund financing is already being used innovatively to improve health outcomes for women and children. With commitments of US$ 19.3 billion in 144 countries through a country-driven and performance-based funding model, the Global Fund is well-placed to take a more systematic and strategic approach to utilizing existing investments to accelerate the scale-up of maternal, child, and sexual and reproductive health services, to improve health of women and children and move closer towards achieving MDGs 4 and 5.

7.2 While the evidence base on the benefits of integrated health programs is limited overall, examples from a number of settings show how varying degrees of integration improve health outcomes.[40] More strategic use of Global Fund financing could foster more cohesive approach to programming and more appropriate integration of HIV, TB and malaria services with those for antenatal, child and sexual and reproductive health to ensure they are more *client-centred* and address the health needs of women and children in a more comprehensive manner than currently achieved.

[40] Atun R, de Jongh T, Secci F, Ohiri K, Adeyi O. *Clearing the Global Health Fog: A systematic review of the evidence on integration of health systems and targeted interventions.* World Bank Working Paper no. 166, 2009.