

## HIV AND MATERNAL AND CHILD HEALTH: INVESTING TO ACCELERATE PROGRESS ON HEALTH MDGS

### 1.0 Introduction

In 2000, UN Member States set six Millennium Development Goals (MDGs) for the international community to achieve by 2015, three addressing global health challenges (see sidebar). In 2005, G8 nations – followed quickly by all remaining UN Member States – set another goal: universal access to HIV prevention, treatment, care and support for all in need by 2010. The 2010 deadline has arrived, and this year includes several opportunities to review progress on both the universal access goal and related MDGs and increase the financing required to achieve them.

June G8 and G20 summits in Canada will provide an opportunity for leaders of the world's wealthiest countries to follow through on existing commitments to universal access and address slow progress on MDGs 4 and 5. Canada, as host, has already signalled its commitment to two topics for the G8's development agenda: accountability and maternal, newborn and child health (MCH). It is well-positioned to play a leadership role in both: securing agreement among G8 nations to scale up financing to meet their universal access goal will ensure accountability for their 2005 commitment, and by increasing both political attention and financing for MDGs 4 and 5 help ensure wealthy nations contribute their fair share to achieve the targets set for MDGs 4 and 5. There are important synergies in these goals, which need to be addressed in discussions and plans regarding how best to scale up development aid to achieve them. The Canadian Coalition for Maternal, Newborn and Child Health is hoping to leverage the increased focus on MCH at the G8 to expand financing for the Catalytic Initiative to Save a Million Lives,<sup>1</sup> a multilateral initiative which aims to deliver proven, high-impact, low-cost

intervention to save the lives of mothers, newborn and children through an approach that includes investments in health systems of target countries (1).

There is growing consensus among MCH advocates and multilateral agencies on what interventions are required and the financing and health system challenges that need to be solved in order to meet the 2015 deadline (2).

#### Health-related Millennium Development Goals MDG 4: Child Health

Target: Reduce under-five mortality rate by two thirds, between 1990 and 2015

#### MDG 5: Maternal Health

Target 1: Reduce by three quarters the maternal mortality ratio

Target 2: Achieve universal access to reproductive health

#### MDG 6: Combat HIV/AIDS, malaria and other diseases

Target 1: Have halted by 2015 and begun to reverse the spread of HIV/AIDS

Target 2: Achieve, by 2010, universal access to treatment for HIV/AIDS for all those who need it

Target 3: Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases

(Source: United Nations)

The MDG Review Summit in September 2010 will provide opportunities for the international community to review progress and commit the additional resources necessary to meet all MDGs. These events will hopefully set the stage for an ambitious replenishment of the Global Fund to Fight AIDS, Tuberculosis and Malaria at its October 2010 pledging meeting. The Global Fund, an innovative multilateral aid financing instrument, has made important contributions to all health MDGs.

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## 1.1. WHY THIS PAPER?

Clearly, 2010 is shaping up to be a pivotal year in global health. The outcomes of events this year will have an impact on health and development progress in the developing world for many years. Given the vital role that Canada could play in their success, this is a strategic opportunity for Canadian civil society organizations to review the scientific and programmatic evidence of the impact HIV investments on MCH, highlighting how increased financing for MDG 6 will also accelerate progress on MDGs 4 and 5 - and vice versa.

This analysis is particularly timely given the current global economic climate. The wake of the global recession is placing additional fiscal pressure on overseas development assistance (ODA) and domestic health budgets. Canada, for example, is leading Organization for Economic Cooperation and Development (OECD) countries in economic recovery; it increased annual Gross Domestic Product by 6.1% in the first quarter of 2010, the largest increase in a decade (3). Despite its robust economy, in 2010 it announced it would freeze ODA at fiscal year 2010/11 levels for the next five years. The freeze will mean Canada's performance as a donor country will quickly decline compared to other OECD countries; the OECD Development Assistance Committee (DAC) indicates Canada's projected ODA in 2014/15 (the deadline for achieving MDGs) will result in a ranking of 18 among 22 OECD countries (4).

Several recent reports suggest that signs of donor retreat and disengagement from AIDS are already having an impact: capping or rationing slots available for those in need of antiretroviral therapy (ART) in several high-burden countries, downscaling ART coverage goals in Swaziland, Botswana and Tanzania, and reducing the availability of antiretroviral (ARV) drugs, resulting in stock-outs and clinically dangerous treatment interruptions (5). A May 2010 report from Médecins Sans Frontières (MSF), which conducted

in-depth research in eight African countries, confirms both the drop-off in donor financing for AIDS and implications in rising rates of morbidity and mortality for those still waiting to access ART in Africa (6), the majority of whom are women. In Congo, for example, MSF found that the number of new AIDS patients able to get treatment has fallen by more than 80 per cent. Progress on MDG 6 remains fragile, and the recent MSF reports highlights what is at stake if the international community fails to fulfil its obligations.

## 2.0 What is the Relationship between MDG 6 and MDGs 4 and 5?

The impact of AIDS, TB and malaria on child and maternal health is clear:

- AIDS is the leading global killer of women of reproductive age; in sub-Saharan Africa over 60% of people living with HIV are women, the majority of whom still do not have access to ART (7)
- An estimated 430,000 children under 15 years of age were infected with HIV in 2008, primarily due to vertical transmission; 2.1 million children were living with HIV at the end of 2008 (7)
- Almost 80% of malaria deaths occur in children (8)
- AIDS is the leading cause of under-five mortality in the six highest HIV prevalence countries, accounting for over 40% of under-five deaths in these countries (8)
- Over 700,000 women die every year of TB, with children under 15 years of age comprising 10% – 15% of the global TB burden (9)
- A South African study found that 38% of maternal deaths were not related to pregnancy and were primarily due to HIV, TB and pneumonia (10)
- A five-year audit of maternal mortality in South Africa showed that maternal deaths were six times higher among women living with HIV (11)

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### 2.1 PROGRESS AND CHALLENGES IN REDUCING MATERNAL AND CHILD MORTALITY

Progress in reducing childhood mortality has been - for the most part – slow and unevenly distributed. A 2008 progress report tracking coverage of MCH interventions indicated that only 16 out of 68 priority countries (comprising 97% of maternal and child deaths worldwide) were on track to meet MDG 4 (14); the report notes that many of the countries which reported increases in child mortality were countries with high HIV prevalence. Three key interventions were identified as priority gaps in the continuum of care: contraception, skilled attendance at birth and clinical case management of newborn and child illnesses. All three interventions are part of WHO's package of priority HIV prevention, care

and treatment interventions in the health sector (15). Financing to increase access to these interventions would help close important gaps in coverage that are contributing to child mortality. Broader implementation of WHO's evidence-based Integrated Management of Childhood Illness Strategy – estimated at a dismal 1% coverage in the progress report – could significantly reduce under-five mortality, including complications due to HIV infection (14).

Yet there have been marked improvements despite these gaps. A May 2010 analysis showed progress in reducing under-five mortality, which dropped from 11.5 million deaths in 1990 to 7.7 million deaths in 2010. While insufficient to meet the 2015 goal of reducing under-five mortality by two-thirds, it demonstrates that significant progress can be made on global health challenges (16). The report also notes that, '...fluctuations in post-1990 under-5 mortality in southern sub-Saharan Africa show the effect of HIV in the region' (16).

The impact of the HIV epidemic was found to be even more significant for maternal mortality; study authors attributed declines and slow progress in improving maternal mortality (particularly in Africa) to the impact of the HIV epidemic (14).

While HIV continues to present a major challenge to maternal and child mortality, increased access to relevant HIV interventions has increased markedly over the past two years, and this will hopefully have a significant impact in the next report from the Countdown Working Group: ART coverage for children (under 15 years of age) increased 39% between 2007 and 2008 alone, with 45% of children in need currently accessing ART at the end of 2008 (17). Increased access to appropriate ART for women and ARV prophylaxis to prevent vertical transmission all showed similar gains: an estimated 65% of women who need it

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are accessing ART and ARV prophylaxis coverage increased from 35% of women in need in 2007 to 45% in 2008 (including a lower proportion of women on suboptimal ARV prophylaxis interventions).<sup>1</sup> It is important to note that, as a result of revised WHO guidance on earlier initiation of ART, released in December 2009, estimates of need are expected to increase significantly when UNAIDS releases its estimate of resourcing requirements later this year.

The impact of AIDS financing on MCH and broader population health challenges is widespread: life expectancy is once again rising in high disease-burden countries like Botswana, which saw its life expectancy plummet 29 years in less than a generation (from 64 to 35 years of age) due to AIDS mortality (18). Below are examples from scientific literature demonstrating the impact of HIV programmes and services on maternal and child health status:

- In Botswana, infant mortality and overall life expectancy increased for the first time in over a decade, following the scale-up of HIV prevention and treatment (19)
- An 81% reduction in infant mortality among infants *uninfected* with HIV was found in an Eastern Ugandan study following ART introduction, likely a result of the 93% reduction in orphanhood that ART access had in reducing parental mortality (20)
- A 57% reduction in under-2 child mortality was observed in a study in KwaZulu-Natal Province in South Africa following ART and PMTCT programme scale-up (21)
- A study in western Kenya found that the use of ART reduced the probability of an HIV-infected child being diagnosed with incident TB by 85% (22)
- Treatment sites in Rwanda improved their tracking of services to women at risk of infection, enabling them to rollout information programmes on HIV prevention, transmission and ART; the percentage of

women receiving appropriate ARV prophylaxis to prevent vertical transmission increased from 60% to 90%

Improvements in maternal and child morbidity and mortality as a result of HIV investment are clear, as is their impact on reducing vulnerability to other endemic diseases, such as tuberculosis.

### 2.2. WHAT ROLE IS THE GLOBAL FUND PLAYING IN ACCELERATING PROGRESS ON MCH?

The Global Fund has proven to be the most effective and innovative aid financing instrument in development history, financing (together with domestic sources and the President's Emergency Plan for AIDS Relief) the majority of programmes and services combating the three infectious diseases that contribute most to morbidity and mortality in the developing world. The country-driven, performance-based grants architecture of the Global Fund has, in a relatively short time, increased intervention coverage (such as access to ART and the supply of insecticide-treated bed nets to prevent malaria) and demonstrated results in terms of health outcomes: approximately five million lives have been saved as a result of Global Fund-financed programmes, an estimated 3,600 saved daily through programmes that deliver prevention, care, treatment and support services in 144 countries (23). Progress in reducing vertical transmission has been so substantial that the Global Fund recently launched a major campaign, *Born HIV Free*, which aims to eliminate vertical transmission by 2015. If the campaign succeeds, it would be an important benchmark in progress for both MDG 4 and MDG 6.

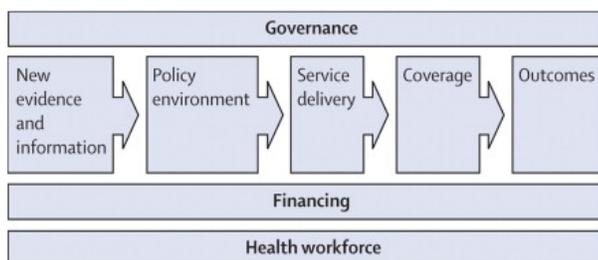
By the end of 2010, an estimated 6 million orphans and other vulnerable children will have access to programmes and services financed by the Global Fund (including food, healthcare,

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clothing, bedding, shelter, education and psychosocial support) (24). Modelled estimates based on current and anticipated unit costs outline the amplifying effect of Global Fund investments on mortality and life-years gained: averted deaths correspond to 2 million life years gained in 2011 from ARV therapy alone; 63 million life-years gained (cumulatively) through long-lasting insecticidal net distribution at 2011 levels (the figure is higher partly because malaria disproportionately kills children).

### 3.0 What Role do Health Systems Play in Progress on MCH?

A 2008 report on MCH intervention coverage focused on how well-functioning health systems – including appropriately trained health human resources – are key to reducing maternal and child mortality: of the 68 countries included in the review, 54 had health workforce densities below the critical threshold identified by WHO of 2.5 health care professionals per 1000 population (25). The diagram provides an overview of key components of a functional health care system required to optimally deliver MCH interventions and achieve improved health outcomes.



Source: Countdown Working Group on Health Policy and Health Systems

Despite concerns raised by some that vertical, disease-specific programmes create health system distortions (pulling resources away from other areas of the health system), a recent comprehensive review undertaken by WHO suggests that HIV investments have strengthened health care systems, partly by introducing a series of innovations in how services are delivered, such

as standardized drug regimens, simplified clinical guidance and task-shifting (aimed at better utilizing nurses and community health workers to free up physician time); health information systems (including disease surveillance) and supply and procurement systems for medical commodities have all benefited from HIV investments (26). A study in Haiti and Rwanda found that delivery of HIV prevention services also increased use of non-HIV related health services, including antenatal care, delivery of newborns in healthcare settings, increased vaccinations and screening for sexually transmitted infections (27).

Financing for AIDS, TB and malaria have provided programme funding for midwifery/birth attendant support and laboratory and clinical infrastructure, all of which are essential for better service delivery across the continuum of maternal and child care.<sup>1</sup> A substantial component of Global Fund financing is allocated to addressing the continuum of care required for pre-pregnancy, pregnancy, birth and child care, contributing substantially to the scale-up of coverage for these populations. The Global Fund's contributions to MCH include (28):

1. Macro-level development assistance for health (supporting countries to reach the WHO-recommended target per capita health expenditure of US \$45).
2. HIV, TB and malaria interventions for women and children across the continuum of care (including sexual and reproductive health services)
3. Strengthening health and community systems as part of its grants architecture, thereby allowing countries to expand primary care for women and children (e.g., scale-up of Health Surveillance Assistants who supervise a range of services, including supervision of birth attendants, disease surveillance, and family planning and nutrition advice).
4. Promotion of gender equality and the

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creation of an enabling environment to address the health needs of women and children through implementation of its Gender Equality Strategy.

The Global Fund's partnership with the Global Alliance for Vaccines and Immunization (GAVI) to establish a joint health system strengthening platform, focusing on how to strengthen weaknesses in the health care systems (such as addressing the availability, retention strategies and training needs of health human resources) that continue to limit progress on all health MDGs. The partnership with GAVI will expand opportunities to additionally leverage the Global Fund's impact on MCH given the important expertise at GAVI and the commensurate global role it is playing in early vaccination and immunization of children to reduce the incidence of preventable childhood diseases.

### 4.0 Conclusion

An editorial in *The Lancet*, commenting on the recent papers assessing progress on MDGs 4 and 5, was clear about the implications of these studies: "This latest evidence... supports growing calls to integrate maternal and child survival programmes into a vertical funding mechanism for the MDGS, such as the Global Fund to fight AIDS, tuberculosis and malaria" (29).

While the Global Fund cannot and should not be seen as a panacea for addressing the many factors contributing to slow progress on MDGs 4 and 5, evidence presented in this brief supports the argument that increasing investments in the Global Fund will accelerate progress on MDGs 4 and 5 as well as on AIDS, TB and malaria. Discussion at the Global Fund's 21<sup>st</sup> Board Meeting (28 – 30 April) emphasized its commitment to strengthening its already substantial impact on MDGs 4 and 5.

More resources are needed to accelerate progress on MCH: both as part of and in addition to financing for AIDS, TB and malaria. The scale-up of financing for AIDS, TB and malaria is now having a substantive and widening impact that can be measured at a population level in many countries. The Global Fund's 2010 impact report noted that global health financing has now changed the trajectories of these three epidemics through collaboration, innovation and investment, driven by the critical impetus of political leadership.

The international community stands at a crossroads, at a time when Canada's role in accelerating progress on global health and development goals will be vital. Canada and other nations must be accountable for the promises of their politicians. The evidence demonstrates what can be accomplished when international attention and financing are focused on common goals. This year, Canada can demonstrate leadership on achieving those goals by increasing ODA to meet its obligations, and by lobbying other world leaders to do the same. The lives of many hang in the balance.

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<sup>1</sup> The Coalition is comprised of Action Canada for Population and Development, Care Canada, Plan Canada, Results Canada, Save the Children Canada, UNICEF Canada and World Vision Canada.

<sup>2</sup> WHO guidelines on ARV prophylaxis options to prevent vertical transmission all include multi-drug ARV prophylaxis; however, single-dose Nevirapine continues to be used in some clinical settings and is included in overall coverage estimates.

<sup>3</sup> The maternal, child and newborn health care continuum is a package of health services, beginning with access to essential health and reproductive services for women from adolescence through pregnancy, delivery, and beyond; and for newborns into childhood, young adulthood and beyond.

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