## No Need for Apologies

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**Abstract:** The expansion of access to antiretroviral therapy for millions of persons living with HIV in low-income countries has been lauded by many. However, the investment in such programs has at the same time been criticized by others, who claim diversion of resources from HIV prevention efforts and from other important health threats in these same countries. Yet, the time is right to recommit to the goal of universal access to HIV prevention and treatment while garnering the lessons learned from HIV programming and building on the platform it has established in confronting other health threats.

Key Words: HIV prevention, care, treatment

(J Acquir Immune Defic Syndr 2011;57:S68–S71)

The global effort to provide persons living with HIV (PLWH) with access to treatment has had a tumultuous history. Coinciding with the approval of protease inhibitors for use in the treatment of HIV disease by the United States Food and Drug Administration, sharp declines in HIV-associated morbidity and mortality were documented in the United States. Although these agents were highly effective in combination with existing classes of antiretroviral drugs, differential access to them was evident within a few years of their introduction, with HIV-infected African Americans, women, and the uninsured less likely to be taking protease inhibitor-containing regimens.

Although disparities in access to antiretroviral therapy (ART) and health outcomes for PLWH in the United States were striking, the divide between patients with and without access to ART was starkest in the developing world, home to tens of millions of PLWH. Early efforts were made to address this inequity, most notably by French president Jacques Chirac with his 1997 call for the establishment of the International Treatment Solidarity Fund. At the time, few world leaders or international development partners supported the idea, arguing that large-scale treatment access was impossible in poor nations.<sup>3</sup>

Consensus shifted, however, as key developments—including the decision of the Government of Brazil to provide

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The authors have no funding or conflicts of interest to disclose.

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ART for free in the public sector, the launch of the Joint United Nations Programme on HIV/AIDS (UNAIDS) Drug Access Initiative, and the rise of national advocacy movements demanding access to ART in South Africa, Thailand, and elsewhere. This led to the establishment of mechanisms to provide financial and technical support for HIV programs in developing countries, most notably the Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM) and the United States President's Emergency Plan for AIDS Relief (PEPFAR). Remarkable progress was rapidly achieved in expansion of access to ART in low-income countries. However, in recent years, some have expressed misgivings regarding the focus of HIV-related efforts and the magnitude of resources designated to confront the epidemic.

### SCALE-UP OF HIV PREVENTION, CARE, AND TREATMENT

The early success of public sector HIV care and treatment programs established by Médicins Sans Frontières, Partners in Health, and the MTCT-Plus Initiative provided momentum, demonstrating the feasibility of providing ART to men, women, children, and families in extremely resourcelimited settings.<sup>4</sup> The commitment by countries, policy makers, program implementers, health care workers, and affected communities enabled the rapid scale-up of HIV care and treatment to address the inequity in access. By the end of 2009, more than 5 million PLWH were receiving ART in low- and middle-income countries, with a rapid increase in years-of-life gained in sub-Saharan Africa.<sup>5</sup> Expansion of prevention efforts also took place, including substantial increases in rates of HIV testing and programs for prevention of mother-to-child transmission among other efforts.6 Although much remains to be done to achieve universal access to prevention, it is encouraging to note that HIV incidence has stabilized or decreased in several countries in sub-Saharan Africa.6

# "WE CAN'T TREAT OUR WAY OUT OF THE HIV EPIDEMIC"

Arguments against the provision of ART in developing countries have persisted for more than a decade. Initially, these arguments centered around two main propositions: 1) HIV prevention was more cost-effective than AIDS treatment<sup>7</sup> and 2) provision of ART would exacerbate existing inequities and weaknesses in health systems.<sup>8</sup> By the late 2000s, an additional argument was added, which maintained that HIV received a disproportionate share of global health funding and

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that HIV programs were overwhelming health systems and were not sustainable.9

The assertion that "we can't treat our way out of the HIV epidemic" has been repeated so often that it has been described as a "meme" or "mantra." The statement has come to mean different things. One use of the phrase acknowledges the need for a comprehensive response to the epidemic—inclusive of both prevention and treatment. For example, in 2007, in testimony to the United States Congress on the reauthorization of PEPFAR, Norman Hearst indicated:

...when I say we can't treat our way out of the epidemic, I in no way intend that to mean we shouldn't be doing treatment. What I mean by it is that we shouldn't fool ourselves into thinking that treatment is in some way a substitute for prevention, or that it will necessarily result in prevention [...] we need both. We need them both very much. (www.internationalrelations.house.gov/110/37971.pdf)<sup>1</sup>

In contrast, the second use of this phrase appears to frame HIV prevention and treatment as opposing strategies. This framework was articulated by Bill Gates<sup>11</sup> as follows:

And that is why, even as we are hopeful, we have to be honest with ourselves: We don't have the money to treat our way out of this epidemic. Even as we continue to advocate for more funding, we need to make sure we're getting the most benefit from each dollar of funding and every ounce of effort. If we push for a new focus on efficiency, especially in prevention, we can, over the next two decades, drive down the number of new infections dramatically.

Gates makes the case that the marginal efficiency of investment in treatment cannot match that of one in HIV prevention. Others have made similar arguments, <sup>12,13</sup> framing a stark choice between AIDS treatment and a range of other health interventions:

Donors must protect and expand resources for the most cost-effective health interventions, focusing on HIV prevention, childhood immunization, malaria, tuberculosis, maternal mortality, and family planning. These efforts will improve global health for a few dollars per year of life saved, instead of postponing deaths at hundreds of dollars per year saved with ARTs. <sup>12</sup>

### THE LIMITS OF STANDARD COST-EFFECTIVENESS ANALYSES

Although cost-effectiveness analyses can be quite useful in informing policy, guiding programs, and achieving efficiency, some of the cost-effectiveness arguments advanced in the context of HIV treatment have been criticized on several grounds. One weakness, as stated by Walensky and Kuritzkes, 14 is that they compare the cost of interventions versus disease-adjusted years of life lost in isolation from other factors that influence the real-world effectiveness of ART:

Although it is often appropriate to use results of costeffectiveness analyses in treatment allocation decisions, use of these results while ignoring their contextual setting may lead to important biases that too often go unrecognized.

As one example, ART has been shown to have indirect effects on families and communities, apart from the direct benefit to those taking the medications. Several studies have demonstrated such indirect effects of ART on child survival, in which treatment of HIV-infected mothers has reduced mortality of *uninfected* children, orphanhood, and the incidence of infant diarrheal disease. <sup>15,16</sup> Another indirect effect of ART is the impact of treatment on HIV-infected health workers. <sup>17</sup> Still another is the potential impact of HIV treatment on HIV transmission to others. <sup>18</sup> Although it is methodologically possible to include these indirect effects in standard cost-effectiveness analysis, studies to date have not included such key parameters.

The use of cost-effectiveness analyses to compare different health interventions has also been criticized by Moatti et al<sup>19</sup>:

Using cost-effectiveness analyses to set priorities among different health interventions by ranking them from the lowest to the highest values of their cost per life-year saved is appropriate only under the very restrictive and unrealistic assumptions that all interventions compared are discrete and finite alternatives that cannot vary in terms of size and scale.

Nattrass and Gonsalves have also made the case that cost-effectiveness analyses generally do not take into account the political context of health policy decision making. In the case of HIV, the presence of a strong civil society at national and international levels has brought new forms of oversight of governmental and multilateral institutions. Cost-effectiveness analyses that do not integrate a political—economic perspective may risk evaluating interventions without an appreciation of the forces influencing the feasibility or practicality associated with their implementation.<sup>20</sup>

## THE SUSTAINABILITY CONCERN

Another concern raised by some regarding HIV programs and particularly HIV treatment scale-up is the issue of sustainability.<sup>21</sup> However, this notion—which is usually defined as the ability of country health programs to continue independent of international aid—has come under increasing scrutiny. Without a doubt, national governments must aim to boost investments in health and development. However, for 33 countries from sub-Saharan Africa that spend less than US\$15 per person per year on health, doubling or tripling current allocations for health would be necessary to reach the recommended minimum expenditure of US\$35 per person per year. In some settings, this would require that general health expenditure would form more than 100% of the total general government expenditure.<sup>22</sup>

It is also important to keep in mind that some widely lauded programs, such as the Expanded Program on Immunization and the polio eradication program, have yet to achieve sustainability. Ooms<sup>22</sup> provided the following perspective on the issue of sustainability:

Rejecting concerns about sustainability might be the best way to defeat the illusion of sustainability and,

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paradoxically, to promote sustainability at a different level; the sustainability of international assistance.

#### PITTING PREVENTION AGAINST TREATMENT

Despite the rhetorical appeal of pitting HIV treatment against HIV prevention, this false dichotomy fails to acknowledge the fact that treatment and prevention should not be considered opposing strategies. Prevention of motherto-child transmission is one example in which prevention and treatment go hand in hand. The most effective strategy for prevention of mother-to-child transmission in terms of achievement of optimal AIDS-free survival for infants is via effective treatment of their mothers during pregnancy and beyond.<sup>23</sup> Similarly, prevention efforts among PLWH enrolled in HIV care and treatment programs-"prevention with positives"—holds particular promise and is another example of marrying treatment and prevention initiatives.<sup>24</sup> Without availability of care and treatment programs, these individuals would likely remain unaware of their HIV status, unknowingly transmitting HIV to others without availing themselves of prevention interventions in the context of these care programs. The recent recognition of the direct effects of ART on HIV transmission has provided additional energy to efforts to scaleup HIV treatment and further justification for the union of prevention and treatment. 18,25-27 To achieve the potential of HIV treatment as a prevention strategy on a population level, it will be necessary to expand access to ART coverage far beyond current goals—the latter requiring further resources.

# WAS SCALING-UP TREATMENT AN ERROR IN IUDGMENT?

Only a decade ago, AIDS was a death sentence. The speed and scope of the scale-up of ART in Africa and elsewhere have been a remarkable and historic public health achievement. The sheer number of years of life saved, the hope that ART has provided for people in high-prevalence countries, the way in which ART has allowed health care workers to become healers rather than simply witnesses to relentless suffering and death, the freedom from fear it has given to PLWH to live their lives as full members of their families and communities, and the motivation it has given those who did not know their serostatus to come forward and be tested—these are just a few of the remarkable consequences.

As South Africa Constitutional Court Justice Edwin Cameron, <sup>28</sup> himself living with HIV, has said:

The arguments of the skeptics present a classic case of the supposedly "better" being the enemy of the good. It is unlikely that in our lifetimes we will attain perfection in Africa. Let us attain something less than perfection in the lives of enough Africans to save them from death by AIDS.

Efforts entailed in establishing HIV programs have motivated a change in health systems from fractured demoralized systems barely able to cope with acute illnesses to those able to provide the continuity care necessary in the management of a chronic condition such as HIV/AIDS.<sup>29</sup> Innovations in governance, models of care, procurement of medications and commodities, human resource utilization, and other domains

catalyzed by HIV programming can serve as a platform on which to build a response to other health threats that these same countries face.<sup>30</sup> A growing body of evidence is accumulating in terms of effect of HIV programming on non-HIV outcomes, including TB prevalence and quality of antenatal services, among others.<sup>31,32</sup>

In addition, there is little evidence to support arguments that the global community would have been better served had funds spent on HIV treatment been allocated instead to HIV prevention or to other health threats. It is not clear that such funds would have been available for an HIV prevention-only strategy, given the extraordinary coalition of political actors who came together to support treatment scale-up. Additionally, a realistic counterfactual scenario has not been articulated to date—one that describes the trajectory of the HIV epidemic in the absence of expanded access to ART. Would we have observed a dramatically worse epidemic? Would the observed stabilization and decrease in HIV incidence in many countries in sub-Saharan Africa have occurred? Would we have witnessed widespread civil strife in the most severely affected countries? Would the absence of the global solidarity movement in support of ART access have resulted in less attention to global health in general, with resultant failure of expansion—if not contraction—of the funding of such efforts?

#### **ACTION, NOT APOLOGIES**

The time is right to continue the scale-up of HIV programs in the most effective and efficient manner and to cast aside the spurious arguments against the provision of ART and HIV efforts in general. It is also time to use what we have learned in HIV to shape more robust responses to the many other health conditions that threaten the global community. Even in a time of fiscal crisis, health must continue to be prioritized and cost-containment measures that may increase health risks and exacerbate disease burdens must be avoided.<sup>33</sup>

Finally, collaboration and partnerships are needed now more than ever across disciplines, interests, and passions to deepen knowledge, expand frameworks, and achieve the hopes and dreams of communities around the globe. When the history of the HIV epidemic is written, in addition to documenting its human costs, let us hope that this epidemic will be recognized as a watershed event that taught the world how to respond to public health crises in a manner that transcends what some believed impossible to accomplish.

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