

# The Philippine HIV/AIDS Epidemic: A Call to Arms

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## ABSTRACT

The incidence of HIV/AIDS in the Philippines has been rising to unprecedented levels and we are in the midst of a full-blown epidemic. In 2009, a record number of new cases were diagnosed, with the highest number of new cases ever reported in a month (126) occurring last December. While effective treatment exists for persons living with HIV/AIDS, the number of trained healthcare personnel who are competent to care for these patients is in very short supply. HIV/AIDS treatment is tremendously complex, and requires specialized training in order to maximize the benefit derived from medications. Moreover, antiretroviral drugs are prohibitively expensive, and the potential loss of external funding from the Global Fund which currently supports antiretroviral treatment will be catastrophic. Prevention and awareness campaigns remain by far potentially the most effective means of controlling HIV/AIDS in the Philippines. Clinical capacity building through training of physicians is already in effect, but may need to be ramped up further in the face of accelerating case numbers. In addition, international research collaboration for access to state of the art therapies and approaches will play an important role if we hope to reverse the epidemic. Finally, novel policies including opt-out testing, aggressive case finding, and test and treat strategies need to be explored in order to effectively combat this threat.

*Key Words: HIV/AIDS, Philippines, Health Policy, Epidemic*

## Background

Acquired Immune Deficiency Syndrome or AIDS is caused by the Human Immunodeficiency Virus (HIV). HIV is acquired through sexual contact, exposure to infected blood or blood products, or through maternal to child transmission. Its target cell, the CD4 positive or T-helper cell, is the lynchpin of the adult immune system. Over the course of a clinically latent period of eight to ten years, the virus gradually depletes these cells, increasing the risk of the

development of severe and life-threatening opportunistic infections. Prior to the discovery of effective treatment, HIV/AIDS infection was generally regarded as a death sentence.<sup>1</sup>

An estimated 33.4 million people worldwide are currently infected with HIV. 2.7 million new cases were recorded in 2008, and 2 million deaths were reported. Overall, the number of new cases has declined by 17% since 2001, and the number of deaths has decreased by 10%. As a result of more people living longer on effective therapy, the total number of cases has tapered off but is still slightly increasing despite the overall decrease in new infections.<sup>2</sup>

Remarkable progress in the treatment of HIV/AIDS has been made in the past 25 years. The first effective HIV drug, zidovudine, was approved by the FDA in 1987. However, it was the availability of protease inhibitors in 1995 that paved the way for the use of combinations of antiretroviral drugs (ARV's) into what is now termed highly active antiretroviral therapy (HAART) that led to a dramatic decrease in the number of deaths due to the virus, and an overall decrease in transmission.<sup>1</sup> Yet, HAART is prohibitively expensive, with some optimized regimens costing nearly US \$2,000 per month per patient. Through the establishment of the Global Fund for AIDS, Tuberculosis and Malaria, availability of free medication for lower and middle-income countries has increased, and persons living with HIV are surviving for longer periods with fewer complications.<sup>3</sup>

The objectives of this paper are to evaluate the current HIV/AIDS epidemic in the Philippines, and to examine ways to more effectively control the disease and potentially reverse the epidemic.

## HIV/AIDS in the Philippine Setting

The first two cases of HIV/AIDS in the Philippines were reported in 1984. Since then, 4,424 confirmed cases of HIV infection have been reported<sup>4</sup> and the numbers continue to climb. In 2003, the low numbers of HIV cases in the Philippines relative to other countries in the Southeast Asian region attracted international attention. It was hypothesized that some factor may be protecting Filipinos, since sexually transmitted disease (STD) rates were similar to that of other countries.<sup>5</sup> Other than a possible level of protection from high circumcision rates, no other factor has been found.

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In a recent press briefing by the National Epidemiology Center on the latest data from the Integrated HIV Behavioral and Serologic Surveillance System (IHBS) from 2009, it was announced that the number of HIV cases had doubled in the last two years, in contrast to a 10-year doubling time between 1996 and 2006. Furthermore, the age of diagnosis is becoming younger and younger. Also, local transmission is now making up the bulk of new cases, in contrast to earlier years where overseas foreign workers contracted HIV outside the country.

Transmission of HIV in the Philippines remains predominantly via sexual contact, with 90% of infection occurring through unprotected sex. Heterosexual transmission remains the main mode of sexual transmission, and more men (73%) are infected. However, men who have sex with men (MSM) transmission has been rapidly increasing, and may overtake heterosexual transmission at some point in the future.<sup>4</sup>

Current numbers of confirmed cases are generally regarded as inaccurately low estimates because of the absence of universal testing, the need to acquire informed consent, and the general reluctance towards testing. For instance, while the number of confirmed cases at the end of 2005 was around 2,400, the United States Agency for International Development (USAID) estimated that actual numbers at that time were around 12,000.<sup>6</sup> In contrast to the 17% decline in new cases globally since 2001, Philippine cases are up by more than 300% in the same period.

#### **Role of Research in HIV/AIDS Treatment**

After an unprecedented outpouring of billions of dollars in aid and research spending, effective therapy, but not yet cure, was established. Making a key contribution to the detection and treatment of HIV/AIDS is a group of research laboratories and clinics throughout the United States collectively termed the AIDS Clinical Trial Group (ACTG), with attached basic science research laboratories designated Centers for AIDS Research (CFAR). The ACTG has been credited with and continues to produce a large portion of the scientific literature in HIV/AIDS that have led to effective treatment and prevention measures. Moreover, its international collaborators in some of the highest prevalence countries in Africa and Southeast Asia have seen their HIV/AIDS cases dwindle due to the availability of cutting edge treatment from state of the art facilities and clinical trials.<sup>1,3</sup>

#### **Discussion**

While the Philippine Government through the Department of Health, with the help of the Global Fund for HIV/AIDS, Tuberculosis and Malaria through the Tropical Disease Foundation has made great progress in establishing surveillance and treatment centers around the country, these efforts have been inadequate to stem the rise in new

infections. One possibility is that because of universal blood screening and the availability of diagnostic tests, the numbers have increased as a result of improved detection. Unfortunately, the number of new cases per month has outstripped the initial estimates for funding, and may result in interruption of treatment for some patients. The unacceptably high proportion of transmission due to sexual contact coupled with dismally low condom use underlines the fact that prevention and awareness programs need to be accelerated to make a stronger impact.

In addition, the number of trained healthcare workers who are competent to treat HIV/AIDS is grossly inadequate. Formal training for an HIV/AIDS specialist in the United States takes at least two years, and entails rigorous study in immunology, drug interactions and side effects. Currently, to my knowledge, there are less than five formally trained HIV physicians practicing in the country. Most other HIV practitioners have learned HIV/AIDS medicine through short courses and in the course of treatment of patients. Trained nurses are likewise in short supply. Healthcare worker's attitudes towards persons living with HIV/AIDS remain largely ignorant and in some cases hostile and derogatory. This social stigma is also responsible for the reluctance of many at risk persons to seek testing and adequate care.

Diagnostic monitoring of patients in the Philippines involves monitoring CD4 counts twice a year but there are no clear guidelines for viral load testing. Treatment parameters and regimens in the Philippines utilize medications which are effective, but still represent a significant burden and side effect profile. Moreover, the threshold for treating asymptomatic patients starts at a CD4 count of 200 or less.

Aside from ramping up existing programs and training, the Philippines needs to look at novel and state of the art approaches in order to reverse its epidemic. With a relatively low case load at present, interrupting transmission is essential in preventing further spread of the infection. One approach is through a test and treat strategy. This is done by starting all diagnosed cases of HIV, regardless of stage of disease, on antiretrovirals. The rationale of this approach is that by treating all infected persons, the possibility of transmitting disease to uninfected persons is very significantly decreased since the virus particles in the blood are practically eliminated, and those in body fluids such as cervical and vaginal secretions are markedly decreased.<sup>7,8</sup> Disadvantages to this approach include the high cost and the possibility of emergence of drug resistance.

State of the art treatment leads to better outcomes in persons living with HIV. In contrast to currently used treatment regimens in the Philippines (zidovudine plus lamivudine plus nevirapine, four pills per day), regimens that have a low pill burden (combination tenofovir, emtricitabine, efavirenz, one pill a day) increase compliance.

Also, the use of medications (albeit more expensive) with fewer side effects leads to better outcomes and decreases the likelihood of developing resistance. Finally, new evidence has come to light that specific combinations of drugs which were thought to be equivalent to each other are in fact better than others.<sup>9</sup>

More frequent monitoring of essential disease parameters such as viral load and CD4 counts have been linked to better outcomes. A recent meta-analysis showed that frequent monitoring of viral load leads to a 20 to 40% decreased likelihood of the emergence of resistance.<sup>10</sup> Starting patients on antiretrovirals at CD4 counts higher than 200 should also be considered. Recent data has shown that patients started on antiretrovirals at CD4 counts above 350 are half as likely to die than those who defer therapy.<sup>11</sup> While these strategies are potentially more expensive, these approaches are feasible with our relatively low case load and translate into longer survival and decreased transmission.

In order to facilitate more efficient diagnosis, an opt-out approach (no consent needed to test but can request not to be tested instead) in contrast to the current opt-in approach of having to consent for an HIV test has to be explored. With due respect to the privacy of individuals and the current stigma of the disease, HIV/AIDS is turning into a huge public health problem, and has gone from an invariably fatal disease to a treatable one. Therefore, detection of cases becomes a matter of public good, and will enable health officials to better estimate prevalence, and initiate treatment at earlier stages of the disease, which we know saves lives.

Finally, the key role that the ACTG has played in the fight against HIV cannot be ignored. In order to facilitate access to the latest experimental drugs and to accelerate the development of strategies to combat the epidemic, we need to engage our international partners in collaborative research into HIV/AIDS. As an incentive, our epidemic is unique in the world today and represents an unprecedented opportunity to study early HIV/AIDS epidemiology and dynamics. Had they known what we know now about the prevention and treatment of this dreaded disease during the initial outbreaks in San Francisco in the 1980's, it is almost certain that millions of lives would have been saved. It is now up to us to make that difference.

### Summary/Conclusion

HIV/AIDS has reached epidemic levels in the Philippines. In contrast to the rest of the world which has seen a decline in new cases over the last decade, new cases in the Philippines are up more than 300%. With the current knowledge and medications available for treatment and prevention, we possess the tools to potentially arrest and reverse the epidemic. We need to respond to the challenge head on by ramping up conventional programs and coming up with novel strategies. We also need to engage international partners to assist us in this undertaking.

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