



## New Developments in HIV / AIDS

Tuesday, December 1, 2009 was World AIDS Day. This year's theme was universal access to health care. The great news is that there are now wonderful treatments for HIV infection and AIDS. These treatments can extend lives literally for decades. People in this country who are diagnosed early in their infection can expect to live a nearly normal length life span.

The unfortunate news is that for many in the world's population, access to care is nearly impossible. The medications that bring HIV under control are very expensive, even in their generic forms. Moreover, the stigma associated with being infected with HIV continues throughout the world – even in this country. It is even worse in countries where the majority of the population is impoverished and under-educated.

According to the World Health Organization (WHO), as of the end of 2008 there were an estimated 33.4 million people infected with HIV world wide. Of these, approximately 2.7 million people were newly infected during 2008. Approximately 2 million died of AIDS last year. WHO estimates that approximately 430,000 of these new infections occurred among children under the age of 15. This is down about 17%, largely due to world wide efforts to treat pregnant women in order to prevent transmission of HIV to their newborns.



This epidemic continues to evolve regionally, nationally, and globally. It appears to have stabilized in many areas of the world, including much of the United States. It is still on the increase in Eastern Europe and Asia, however. And because more people are infected with HIV each year than die from AIDS, the total number of HIV-positive individuals will continue to grow. Limited access to state-of-the-art treatment means that HIV infection will continue to be a leading cause of premature deaths for decades to come.

In the United States, the highest concentration of new HIV infections shifted from the Northeastern states to those of the Deep South. There was also a re-kindling of the epidemic among gay and bi-sexual men nation-wide. Women make up about one-third of all cases. Over 80% of new infections in women were associated with heterosexual sex. Many of these women perceived themselves as being at no or low risk for HIV infection. They were in what they believed to be, mutually exclusive monogamous relationships.

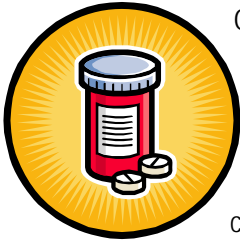
Racial and ethnic minorities continue to bear the brunt of the epidemic. African Americans represent only approximately 12% of the U.S. population: They account for 46% of the HIV-positive population. African American women are almost 20 times more likely to become infected than white women. Latinos are also significantly over-represented.

The benefits of highly active antiretroviral therapy (HAART) are reflected in the huge reduction in AIDS-related deaths in this country. They are down 69% from 1994, before combination drug therapy became the norm. On the other hand, over one-third of all newly diagnosed Americans are diagnosed late in the course of their infection, after HIV has already badly damaged their immune system. This late diagnosis not only limits the benefits of HAART, it also perpetuates the spread of new infections. Those who do not know their infection status and / or are not receiving effective treatment tend to have higher amounts of HIV in their semen and blood. This poses a greater risk to those who are exposed to them.

The United States, Canada, and Europe have made great strides in the prevention of HIV among infants born to HIV positive mothers. Many developing countries have followed their lead and implemented similar programs. Treatment of HIV positive mothers before and / or during birth greatly reduces the risk. When treatment for the mother and / or her infant is continued until she no longer breast feeds, this method of transmission is almost eliminated. In the early days of the AIDS epidemic, transmission from an infected mother to her infants occurred at an estimated rate of



24 – 33%. Breast feeding increased that risk. Now, if the mother is treated with HAART during her pregnancy, and during the birth process, that risk has been reduced to 2 – 3 %. Such advances are amazing.



Over the past twenty-eight years in the United States, AIDS has gone from being a disease with no identified cause, no known treatment, and almost 100% mortality to being a chronic, manageable disease when it is treated aggressively. The challenge now is to extend these advances throughout the rest of the world, and to prevent new infections. It will take time and resources, but it can be done! This epidemic, which has ravaged the world over the past quarter century, can be brought under control. And one of the top 10 leading causes of death can be nearly eliminated.