



World Aids Day Luncheon- December 4th, 2009
Virginia Commonwealth University School of Medicine
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Thank you for the invitation to speak today. I must first admit that, when sent this generous invitation, my first inclination was to turn it down. This is not because I have better or more important things to do, but rather because, as a University based infectious diseases and infection control doctor in Richmond, VA, I felt that my experiences had little to offer an event as globally important as World Aids Day. On further reflection, I thought that, although my experiences may be limited, I could perhaps share with you some of my thoughts and perspectives on the ongoing HIV epidemic.

As a teenager growing up in upstate New York during the mid 1980s, I recall watching the evening news with my father, a pediatrician, and hearing the reports of an epidemic of unusual infections, cancers, and a wasting syndrome in gay men. The 'gay plague' as it was then referred, had made its first impression on me. Within 1-2 years, there was local concern about an HIV positive hemophiliac boy attending the public school. There was widespread confusion, concern and unfounded fears about the potential risk that this unfortunate individual would pose to other students. Coupled with reports of near universal fatality, HIV was truly a disease to be feared. When, in 1985, reports that actor Rock Hudson was dying of AIDS became widespread, international attention to the HIV epidemic appeared to explode. For a gripping and extensively researched account of the response to HIV/AIDS during the

1980's, I would encourage you to read the book ***And the Band Played On: Politics, People and the AIDS Epidemic*** by the late Randy Shilts.

As a college student in the late 80's and early 90's, I paid little attention to the ongoing HIV epidemic. Perhaps this was because I was narrowly focused on my undergraduate education and other interests. In part, however, it is fair to say that national and worldwide attention is of much greater prominence now. This is, no doubt, a good thing.

Although the first World AIDS Day was in 1987, it was not until 1995 that, Bill Clinton, made the first official proclamation of World AIDS day in the United States. As such, World AIDS day was not on the radar for many in the early 90's.

In 1995/96, as a third year medical student in the clinical clerkships, the impact of HIV/AIDS was undeniable. Although early antiretrovirals were now available, the widespread appearance of HAART, with potent protease inhibitors, had yet to materialize. Many patients were admitted with advanced HIV/AIDS, manifesting as wasting, opportunistic infections, and lymphomas. These diagnoses were essentially harbingers of death.

Much has changed since then. With the advent of HAART, HIV infection is seen more as a chronic disease rather than a death sentence, especially if you are fortunate enough to both live in a resource rich country and have access to medications. At present, in the United States, we have 30 FDA approved antiretrovirals.

Perhaps if you are HIV positive in Richmond, VA, you can receive treatment at the VCU Infectious Diseases Clinic, where nearly 2500 men, women, and children receive their medical care. Your medications would be covered by either private insurance, ADAP, VCC, Medicaid, or possibly by enrollment in one of our clinical trials. You would receive care from a team of physicians, nurse practitioners, pharmacists and social workers, all trained in HIV medicine. Clearly, even since my days as an impressionable medical student, the clinical practice of HIV in the USA has improved significantly. With that in mind, it is tempting to have a sense of accomplishment and pride, especially as an infectious diseases physician in a wealthy country. As with many things, however, the measure of success varies largely by perspective.

Where does the epidemic stand now, both in the United States and internationally? A review of some statistics is relevant at this juncture and gives us a frame of reference for the challenges that lie ahead.

1. Incidence of HIV in the USA
 - a. Number of new HIV infections every year: 56,000
2. Prevalence of HIV in the USA

- a. In 2006, 1.1 million people were living with HIV/AIDS
- b. At least half of all new HIV infections are among young adults and adolescents under 25, and a majority of young people are infected sexually.
- c. People of Color:
 - i. Blacks/African Americans accounted for over half (51%) of the estimated number living with HIV/AIDS
- d. Age and Aging
 - i. In 2007, persons aged 40-49 accounted for the largest proportion of newly diagnosed HIV/AIDS cases (27%).
 - ii. In a 2005 CDC report, persons over the age of 50 accounted for 19% of all new HIV/AIDS diagnoses,
- e. Patterns of Transmission are still alarming
 - i. In 2007, the largest estimated proportion of HIV/AIDS diagnoses among adults and adolescents were men who have sex with men (MSM)- 53%
 - ii. High-risk heterosexual contact accounted for 32% of the overall diagnoses and 83% among women
 - iii. Injection drug use (IDU) accounted for 17% of transmissions
- 3. Of the HIV positive individuals in the USA, it is estimated that 25% are unaware of their HIV infection.
- 4. Access to medicines in the United States has been effective at reducing AIDS-related mortality to 70% of what it was prior to antiretroviral therapy.
- 5. Some important worldwide figures include:
 - a. Approximately 33 million people are living with HIV/AIDS worldwide
 - b. Approximately 25 million people have died of HIV/AIDS worldwide
 - c. 3 million people worldwide have access to life-saving HIV treatment, but 10 million need access immediately- mostly those who reside in low and middle-income countries
 - d. Sub-Saharan Africa has some startling figures:
 - i. Although it claims only 11-12% of the world's population, this regions accounts 67% of people living with HIV
 - ii. South Africa is the hardest hit: 5.7 million people are living with HIV/AIDS, almost 1 in 5 South African adults are living with HIV
 - e. Alarming trends – women and children
 - 1. Only 21% of pregnant females were tested for HIV in low- and middle-income countries in 2008.
 - 2. Only 33% of HIV positive pregnant women received ART for the prevention of mother-to-child transmission (MTCT) of HIV in 2007

3. 1000 children were newly infected with HIV worldwide every day in 2007

Our response to the HIV epidemic continues both nationally and internationally. Domestically, the **Centers for Disease Control** has highlighted some focus areas for the control of the HIV epidemic. CDC is focusing its HIV prevention activities in four key areas:

- Expanding HIV testing services to reach the one-quarter of HIV infected people who CDC estimates are unaware of their infection. This has been recently endorsed by the American College of Physicians in a position paper that I encourage all of you to read.
- Ensuring that proven HIV prevention programs exist and are available to those who need them, and are delivered by trained prevention workers
- Conducting research to develop new approaches to HIV prevention
- Enhancing HIV surveillance systems to provide the best possible data

Over the years, the international response to the HIV pandemic has been promising. Although a detailed account is beyond the scope of this presentation, some important, large scale examples that focus on the delivery of treatments and the promotion of prevention include the following:

The Global Fund to Fight AIDS, Tuberculosis and Malaria is a unique private/public international partnership and financing institution that invests the world's money to save lives. To date, The Global Fund has committed US\$ 18.4 billion in 140 countries to support large-scale prevention, treatment and care programs against the 'Big Three Diseases'. The Global Fund Provides nearly a quarter of all AIDS financing world wide.

The **Bill and Melinda Gates Foundation** provides financial support to organizations that are global advocates for HIV/AIDS, including UNAIDS, the Global HIV Prevention Working Group, the Global HIV Vaccine Enterprise, and the AIDS Vaccine Advocacy Coalition. A major focus of the Gates Foundation is expanding access to treatment and promoting HIV prevention through partnerships with advocacy groups, NGO and government authorities worldwide.

On a more commercial level, The **RED Product** line is a business model created to raise awareness and money for the Global Fund by teaming up with the world's most iconic brands to produce RED branded products. A portion of profits from each RED product goes directly to the Global Fund to invest in African AIDS programs. RED products include well known names such as Apple, Converse, Dell, Gap, Starbucks, American Express, Hallmark, Windows and Emporio Armani. All products bear the (product/brand) RED logo making it identifiable to consumers. The RED program was created and is promoted by the larger than life U2 rock star, Bono. From the RED website, the funds

generated by the RED Product Line amounts to the equivalent of providing about 890,000 people with lifesaving anti-retroviral therapy for one year.

These organizations are no doubt impressive in both reach and magnitude however it is important to not overlook the value of small scale, local level involvement and advocacy.

What sort of role can you play, right here in Richmond, VA, in response to World AIDS day? Judging by the size of the audience, there is clearly interest in the HIV pandemic. As many of you are medical students, you may want to consider a career in infectious diseases and join the ranks of front-line HIV providers. Realizing that not everyone will be inspired by 'a glamorous career in infectious diseases', referred to by some as a 'very exciting, low paying job,' there are certainly other vitally important means of involvement. If you choose to become a primary care physician, a surgeon or a neurologist, recognize that, in the course of practice, there should be minimal barriers to HIV screening and testing of patients. This is a critical step towards containment of the epidemic. Other activities involve volunteer work at free clinics, HIV centers and HIV community advocacy groups.

Perhaps you can raise awareness simply by discussing the issue with classmates, colleagues, family and friends. Politically, you could support legislation and politicians with progressive public health agendas.

Last, although this may sound controversial to some, ensuring that all Americans have consistent access to healthcare is a critical step for early diagnosis, treatment and prevention of transmission. The same principle applies across the globe.

World AIDS Day allows us not only an opportunity for pause and reflection, but also reminds us of the many potential roles (either big or small) that we can all play in response to the epidemic.

In conclusion, I have offered you some of my thoughts and perspectives on the HIV pandemic. Many of you may not have learned much new information from this brief presentation. I hope, however, that it served as a reminder that much work remains in response to the ongoing HIV pandemic. As students, healthcare providers and conscientious citizens, you can all play an important role in the global response to HIV. I encourage all of you to become part of the global solution.

Thank you for the invitation and thank you for listening.