HIV: Good News, Bad News

By ACSH Staff — June 15, 2005

According to an estimate released Monday by the Centers for Disease Control and Prevention, over one million people in America are living with HIV. This towering figure is the highest since the 1980s* and may at first seem like discouraging information. But in fact the CDC report represents both good and bad news about the fight against HIV/AIDS.

Confused? Imagine a room in a house, a "prevalence room," containing all cases of HIV in the United States. Incidence, the number of new cases of infection, is the number of people entering the room. Since HIV/AIDS is a chronic illness with no known cure, the only way to exit the room is by death. Therefore if fewer people are dying of AIDS (leaving the room) due to advances in treatment, the number of people in the room will grow as long as new cases enter the room at any significant rate. In other words, it is in some sense good news that the number of people living with HIV/AIDS is on the increase, because it shows that dramatic advances in multi-drug treatments are helping people to live longer instead of dying from the disease. Unfortunately, the CDC report also shows that while we've made progress in reducing the number of people who are exiting the room, the number of people entering has remained fairly constant. The agency has failed in its goal of cutting the annual incidence of HIV infections in half (from 40,000 to 20,000). This information highlights the need for increased focus on prevention efforts.

While the figure of one million infected people is grabbing headlines across the country, a much smaller figure from the same report is just as deserving of attention. According to the CDC's best estimates, approximately 250,000 of these million people are HIV-positive and unaware of it. Clearly, those who do not know their HIV status cannot benefit from the relatively advanced treatments that are available, and they also have the potential to transmit the virus to others. The solution? Testing, testing, testing.

Public health officials agree that widespread HIV testing is crucial to controlling the epidemic, but they do not always agree on which form of testing to use. Two main forms of HIV testing technologies are available. The first, a rapid test that uses either an oral swab or just a drop of blood, can produce results in about twenty minutes. This method tests for HIV antibodies and cannot detect the virus until approximately one month after infection. The second form of testing is a conventional blood test that can detect the RNA of the virus itself. This test is more expensive and typically takes a week to produce results but can identify the presence of the virus in as little as ten days after infection. So which is better?

Ideally, patients should be tested using both methods, but the cost and logistics of dual testing make it impossible as a public policy. New York City has opted for the rapid test in its STD clinics, citing the fact that 32% of those who test positive in the traditional method never return for their results. It is certainly true that the rapid test successfully circumvents this issue. However, the
rapid test carries the risk of "false negatives" (people who are HIV-positive but test negative) and has the potential to miss new infections at the very stage when the virus has the greatest potential for transmission. (This is a particular concern for New York City, which was recently the site of an especially virulent HIV infection that progressed to AIDS in a matter of months rather than years.) According to the director of San Francisco's sexually transmitted disease programs, 10% of those infections found by RNA testing are missed by the more rapid test.

Early identification of infections has advantages beyond individual treatment and prevention. Dr. James Koopman, Professor of Epidemiology at the University of Michigan, points out that the use of the early identification of outbreaks in specific areas can help officials appropriately allocate scarce resources. "Modeling [outbreaks] should be an integral part of every control program, but especially in New York City where the diversity of the epidemic and the misdirection of resources have led to a diverse set of epidemics that need control |If we move fully to [rapid testing] and discard the potential of [the conventional test], we will never see the path to controlling this epidemic." Dr. Koopman believes that most people are transmitting the virus in their earliest stage of infection, when the rapid tests may give a "false negative." Some public health professionals, such as Dr. Ralph Dittman of the Texas Medical Association, advocate offering the RNA test in demographics that the CDC report shows are especially at risk. "The rapid test is better than nothing," he says, "but if we don't get more aggressive with testing, we will be missing an opportunity to control the epidemic."

Whichever testing method local authorities choose, it is crucial that more people be tested and informed of their HIV status if next year's news is to improve.

*Estimates of HIV prevalence are 800,000 to 1,200,000 for the 1980s; 600,000 to 900,000 in the 1990s; 850,000 to 950,000 in 2000; and 1,039,000 to 1,185,000 today (Associated Press). The decreased prevalence in the 1990s probably reflected advances in understanding of the how the virus is transmitted and subsequent development of prevention programs. Recent increases probably reflect both improvements in treatment, which allow patients to live longer, and a recent resurgence in transmission among men having sex with men, perhaps due to a lapse in safe-sex practices (CDC.gov).

Mara Burney is a research intern at the American Council on Science and Health, the staff of which has produced publications such as Toxic Terror [1] that criticize excessive health fears. See also: ACSH's AIDS in New York City: Update 2001 [2] report and Fears entries [3] on [4] AIDS.

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