In 1981, the Centers for Disease Control reported the first cases of severe immunodeficiency and unusual opportunistic infections in gay men. Twenty years later, the AIDS epidemic has spread to the point where virtually all of us know someone who has died of this disease.

During its second decade, the true scope of the AIDS epidemic became increasingly clear. Rates of infection among women, children, minorities, and the poor increased dramatically, and health-care professionals across the country turned their attention to the nation's most vulnerable citizens. Many looked to SUNY Downstate's AIDS programs as a model, because we have been caring for these same populations since the beginning of the epidemic.

During the past decade, there have also been some promising developments. New drugs, called antiretroviral therapies, are making it possible to live longer with HIV, the virus that causes AIDS. For some with HIV, the disease can be managed for a time much like other chronic illnesses. Equally important, the rate of transmission to newborn babies has been dramatically cut by the use of antiretroviral medications.

These advances, however, are not cause for complacency. Although the actual number of New Yorkers infected with HIV is unknown, we do know that fully 10 percent of people enrolling in drug treatment programs are infected. HIV among older New Yorkers is a growing problem. And a recent survey by the New York City Department of Health found disturbing rates of HIV infection among gay men.

AIDS is, and will remain for the foreseeable future, a distressing part of our borough's life. Brooklynites are 3.5 times more likely to have the disease than their fellow Americans. More than half the AIDS cases in the borough are among Blacks—a phenomenon not seen in the United States, New York State, or New York City as a whole. More children live with AIDS in Brooklyn than any other borough. And most adults, men and women, living in the borough trace their infection to injection drug use.

This report, the fourth in a series on Brooklyn's health, highlights these disparities and other AIDS issues that affect our lives in the borough. We hope that it will serve as a springboard for advocacy, research, and action.

John C. LaRosa, M.D.
President
AIDS is the third leading cause of death in Brooklyn. It is not among the top ten causes of death in either New York State or the nation. Drug dependence, which is also among the leading causes of death in the borough, is linked to AIDS. More than half of all known AIDS cases in Brooklyn can be traced to intravenous drug use.

The data reported in this chart is based on 1997 data. This is the latest year in which data, for comparison purposes, is available from national, state, and local entities.

Sources: 1997 Vital Statistics Report, NYSDOH; Deaths: Final Data for 1997 CDC.
Brooklyn ranks second only to Manhattan in the cumulative number of adults living with AIDS. The borough’s large number of known AIDS cases puts a burden on families, health care providers, and community-based organizations. The burden of the disease in Brooklyn is not evenly shared among its neighborhoods. The disease has a greater impact on poorer neighborhoods and those with large minority populations.

<table>
<thead>
<tr>
<th>Borough</th>
<th>Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brooklyn</td>
<td>10,553</td>
</tr>
<tr>
<td>Bronx</td>
<td>8,776</td>
</tr>
<tr>
<td>Manhattan</td>
<td>14,208</td>
</tr>
<tr>
<td>Queens</td>
<td>6,177</td>
</tr>
<tr>
<td>Staten Island</td>
<td>789</td>
</tr>
<tr>
<td>Unknown</td>
<td>2,031</td>
</tr>
<tr>
<td><strong>New York City (Total)</strong></td>
<td><strong>40,503</strong></td>
</tr>
</tbody>
</table>

People living in Brooklyn are 3.5 times more likely to have AIDS than their fellow Americans. Brooklynnites are also at greater risk than most of their fellow New Yorkers.

The data reported in this chart is based on 1997 data. This is the latest year in which data, for comparison purposes, is available from national, state, and local entities.

NEW ADULT AIDS CASES: BROOKLYN VS NYC

As a result of new therapies, new cases of AIDS are declining in Brooklyn and throughout the city. However, the decline in the borough is less dramatic than it is elsewhere in New York City. Since 1991, the decline in AIDS cases was 43% for Brooklyn — far less than the 56% decline for NYC (excluding Brooklyn). In that same year, New York City (excluding Brooklyn) had more than twice as many known AIDS cases as Brooklyn. In 1999, the city had only 50 percent more AIDS cases than Brooklyn.

Source: Data Request for AIDS Cases Reported through 1999, Office of AIDS Surveillance, NYCDOH.
In 1997 Blacks living in Brooklyn bore a greater burden of AIDS than Whites, Hispanics, and other racial and ethnic group members. In fact, more than half of the AIDS cases in the borough have been among Blacks—a phenomenon not seen in the United States, New York State, or New York City as a whole.

The data reported in this chart is based on 1997 data. This is the latest year in which data, for comparison purposes, is available from national, state, and local entities.

Sources: Data Reported for 1997 by the Office of AIDS Surveillance, NYCDOH; AIDS In New York State: 1998-99 Edition Covering Data Reported through December 1997, NYS DOH.
Women living in Brooklyn are far more likely to be diagnosed with AIDS than women living elsewhere in the city, New York State, or the country. Over the past decade, the percentage of women with AIDS has increased both in New York City and, even more so, in Brooklyn. Between 1991 and 1999, new AIDS cases among women living in the borough rose from 27.4 percent to 35.4 percent of the total adult cases.

The growing burden of AIDS among women in Brooklyn disproportionately affects Black women. The ratio of Black females to Black males has increased dramatically during the past decade. In 1991, for every 2.4 Black males with AIDS, there was 1 Black female who had AIDS. By 1999, that ratio had fallen so that for every 1.6 males there was one female.

The data reported in this chart is based on 1997 data. This is the latest year in which data, for comparison purposes, is available from national, state, and local entities.

Sources: Data Reported for 1997 by the Office of AIDS Surveillance, NYCDOH; AIDS In New York State: 1998-99 Edition Covering Data Reported through December 1997, NYS DOH.
For both men and women with AIDS in Brooklyn, the most common route of infection for HIV, the virus that causes AIDS, is injection drug use. This is true in every Brooklyn neighborhood (as defined by the United Hospital Fund). Heterosexual transmission is the second leading route of transmission; it is also the fastest rising. There is also a significant portion of people living with AIDS who do not know, do not wish to disclose, were not yet asked, or were not investigated for their route of infection. They are listed as “other” on the graph.

The data reported in this chart is based on 1997 data. This is the latest year in which data, for comparison purposes, is available from national, state, and local entities. Transmission from blood products was omitted from the graph because of the very small numbers reported.

Sources: Data Reported for 1997 by the Office of AIDS Surveillance, NYCDOH; AIDS In New York State: 1998-99 Edition Covering Data Reported through December 1997, NYS DOH.
Approximately 1 in 9 American children with AIDS lives in Brooklyn. The borough has more children living with AIDS than any other borough in New York. There are twice as many children living with AIDS in Brooklyn than Manhattan, and nearly three times as many as Queens. More than 95 percent of all children with AIDS in the borough became infected through perinatal transmission.

Nearly 60 percent of Brooklyn mothers who transmitted HIV to their babies became infected through injection drug use or by having sex with a man who was an injection drug user. Because drug therapies are very effective in blocking the transmission of the virus from mother to baby, it is essential for women to receive early and comprehensive prenatal care. Fortunately, the percentage of HIV-infected mothers in New York City receiving prenatal care has increased from about one-third in 1994 to more than 80 percent in 1999, according to the New York City Department of Health.*

Distribution of Pediatric AIDS Cases by Mother's Risk Factor, Cumulative Cases through June 1999.

Source: AIDS in Boroughs and Neighborhoods of NYC, Vol. 3, 1999 NYCDOH.
*Children Perinatally Exposed to HIV in NYC: Semiannual Update, May 2000, NYCDOH.
No Brooklyn neighborhood is immune to the ravages of AIDS; however, the number of cases varies greatly among the neighborhoods. People living in north and central Brooklyn are far more likely to be living with the disease than those living elsewhere in the borough.

Injection drug use is the leading risk factor in the transmission of HIV in Brooklyn among both men and women, although in every neighborhood male injection drug use dramatically exceeds female use. The number of cumulative AIDS cases resulting from injection drug use in Williamsburg/Bushwick, Bedford-Stuyvesant/Crown Heights, Downtown/Brooklyn Heights/Park Slope, and East New York is higher than the borough’s other neighborhoods.
The heterosexual transmission of HIV is a growing problem, both across the country and in Brooklyn. In fact, it is the fastest growing risk factor. Since 1991, the number of people who have developed AIDS in this way has increased by 200 percent. Women are at much greater risk than men of becoming infected by HIV in this manner.

Source: Data Request for AIDS Cases Reported through 1999, Office of AIDS Surveillance, NYCDOH.
While the number of AIDS cases has declined here in Brooklyn and across the country, these declines are due primarily to antiretroviral therapies, which slow the progress of the disease, and to HIV prevention efforts. Until July 2000, New York State did not collect HIV seroprevalence data, so it is difficult to know how many people have the virus, but have not progressed to AIDS.

Recent national and local studies suggest that the rate of new infections has started to rise again in certain populations. Public health professionals are particularly concerned about a rise in sexually transmitted diseases, which are often linked to HIV transmission. HIV prevention must remain a priority for the community and for health care professionals. Effective HIV prevention encompasses many types of activities, including:

**Behavioral Interventions**
- Promotion of voluntary HIV counseling and testing
- Prevention case management of HIV-infected persons and those at risk for infection
- Health education and risk reduction counseling for adolescents, injection drug users, people with sexually transmitted diseases, men who have sex with men, and women at risk for infection
- Street and community outreach for those at risk
- School and prison-based health education and risk reduction counseling
- Implementation of syringe exchange programs

**HIV Treatment Interventions**
- Administration of antiretroviral therapies for prevention of transmission of the virus from mother to newborn
- Post-exposure prophylaxis for occupational HIV exposure
- Access to and correct utilization of antiretroviral therapy among those with HIV infection

**Other Medical Interventions**
- Timely treatment of sexually transmitted diseases
- Substance abuse treatment
- Psychiatric and mental health treatment for persons with psychological disorders or severe mental illness

Clearly, we must remain vigilant in our fight against AIDS. The disease has already exacted a heavy toll on Brooklyn’s community, and it will continue to do so. While caring for those with HIV/AIDS, we must also make sure that every person in our borough has the knowledge and skills to prevent the spread of HIV.

We at SUNY Downstate believe that by working with the community and its leaders, we can halt the spread of this disease. Toward that end, we welcome your experience and advice. If you have information or suggestions to contribute, please contact John C. LaRosa, MD, President, SUNY Downstate Medical Center, 450 Clarkson Avenue, Brooklyn, NY 11203.