

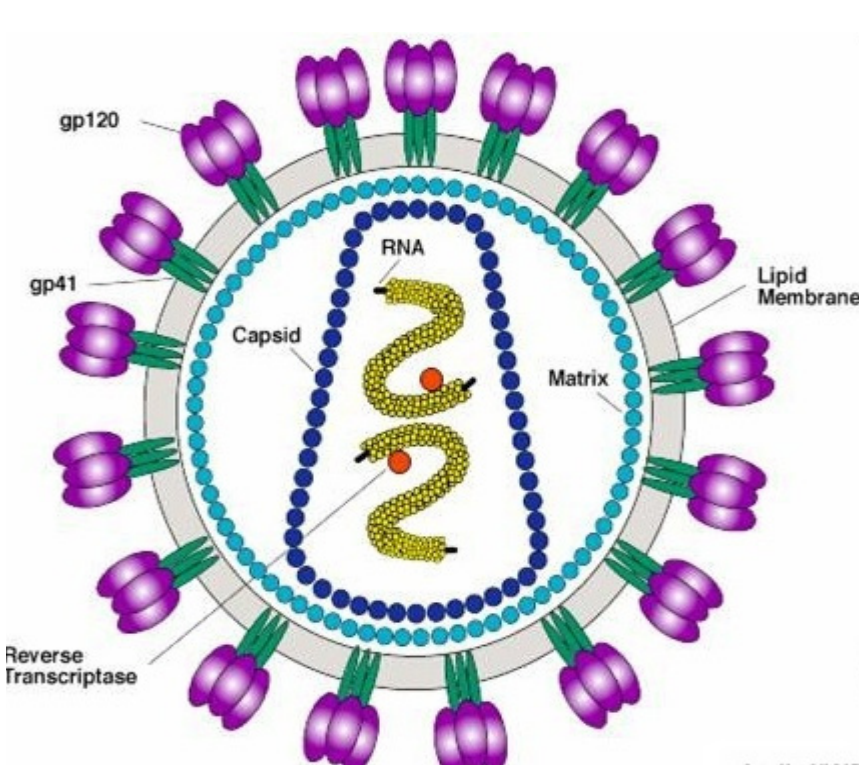


HIV/AIDS Disparities in Minorities

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What is HIV/AIDS?



AIDS is the end-stage disease state characterized by severe damage to a person's immune system resulting from infection with HIV. This immune system damage exposes an individual to a host of opportunistic infections, cancers, and other physical effects, such as significant weight loss. [4] Though first identified in the largest

cities on the East and West coasts of the United States, HIV/AIDS rapidly emerged as a long-term, global pandemic affecting every region of the world.

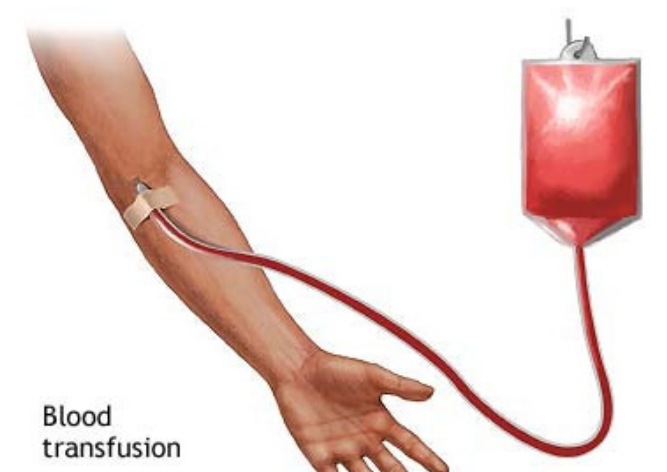
HIV is a virus that stands for Human Immune Deficiency Virus. Viruses are parasites that infect the host cells and replicate within those cells. Viruses are capable of damaging human cells and weakening the immune system. HIV works by breaking down and destroying the immune system, which results in the body being more susceptible to other infections and diseases.

AIDS stands for Acquired Immune Deficiency Syndrome. This term is applied when a person's immune system no longer functions as it normally should or when the number of immune system cells left in their body drops below a particular point. AIDS is an extremely serious condition, and at this stage the body has very little defense against any sort of infections or diseases.[5]

What Causes HIV?

There are several ways that HIV can be transmitted from human to human.

1. **Sexual transmission** – The virus can be transmitted through sexual contact: oral, anal and vaginal sex. The HIV virus is present in the semen and vaginal secretions of a person who is infected. It enters the body through small tears or rips that develop during sexual activity.
2. **Transmission through infected needles/syringes**– The virus can be easily transmitted through needles and syringes that are contaminated with the infected blood. The share of intravenous drugs increases the risk of becoming infected with the virus as well as other infectious diseases.
3. **Transmission through blood transfusion**– The virus can be transmitted through the blood that was a part of a blood transfusion. Usually hospitals and blood banks screen blood supplies for HIV antibodies but it is still possible to become infected through this way.
4. **Transmission from mother to child**– If the mother is infected, she can transmit the virus to the child during pregnancy, delivery or from breast-feeding.



Symptoms

Early Stage- Some symptoms that are common within the first four weeks of becoming infected are flu-like symptoms: fever, headache, sore throat, rashes and swollen lymph nodes.

Later Stages- These symptoms usually occur months to years later of becoming infected. These symptoms include: Swollen lymph nodes (very common sign of HIV infection), weight loss, fever, coughs, diarrhea and shortness of breathing.

Latest Stages of infection- These symptoms accumulate throughout the years of having the infection. One will notice that there are very susceptible to other infections and diseases. All of the earlier stage symptoms still occur.

HIV Treatments

Although there are no definite cures for the HIV/AIDS, there are treatments and medications available that improve the quality of the patient's life. The most common medications available are Anti-Retroviral drugs. These drugs inhibit the growth and replication of HIV at various stages of its life cycle. The following are a list of common Anti-Retroviral drugs:

Drug Name	Description
Nucleoside Analogue Reverse Transcriptase Inhibitors (NRTIs)	This is the first anti-retroviral drug to be developed. It inhibits the replication of an HIV enzyme called reverse transcriptase.
Integrase Inhibitors	These drugs block replication of the HIV integrase enzyme, which prevents the HIV DNA from inserting itself into human DNA.
Non-Nucleoside Reverse Transcriptase Inhibitors (NNRTIs)	These drugs interfere with the replication of reverse transcriptase as well as preventing the virus from inserting its genetic material into cells.
Protease Inhibitors (PIs)	These interrupt HIV replication at a later stage in its life cycle by interfering with an enzyme known as HIV protease.
Fusion Inhibitors	These drugs inhibit the virus from replicating by preventing its membrane from fusing with the membrane surrounding healthy cells.

*The best treatment available is prevention. Know your partners, use condoms, use sterile needles and educate yourself more about HIV/AIDS.

HIV/AIDS Diagnosed in the United States, 2006

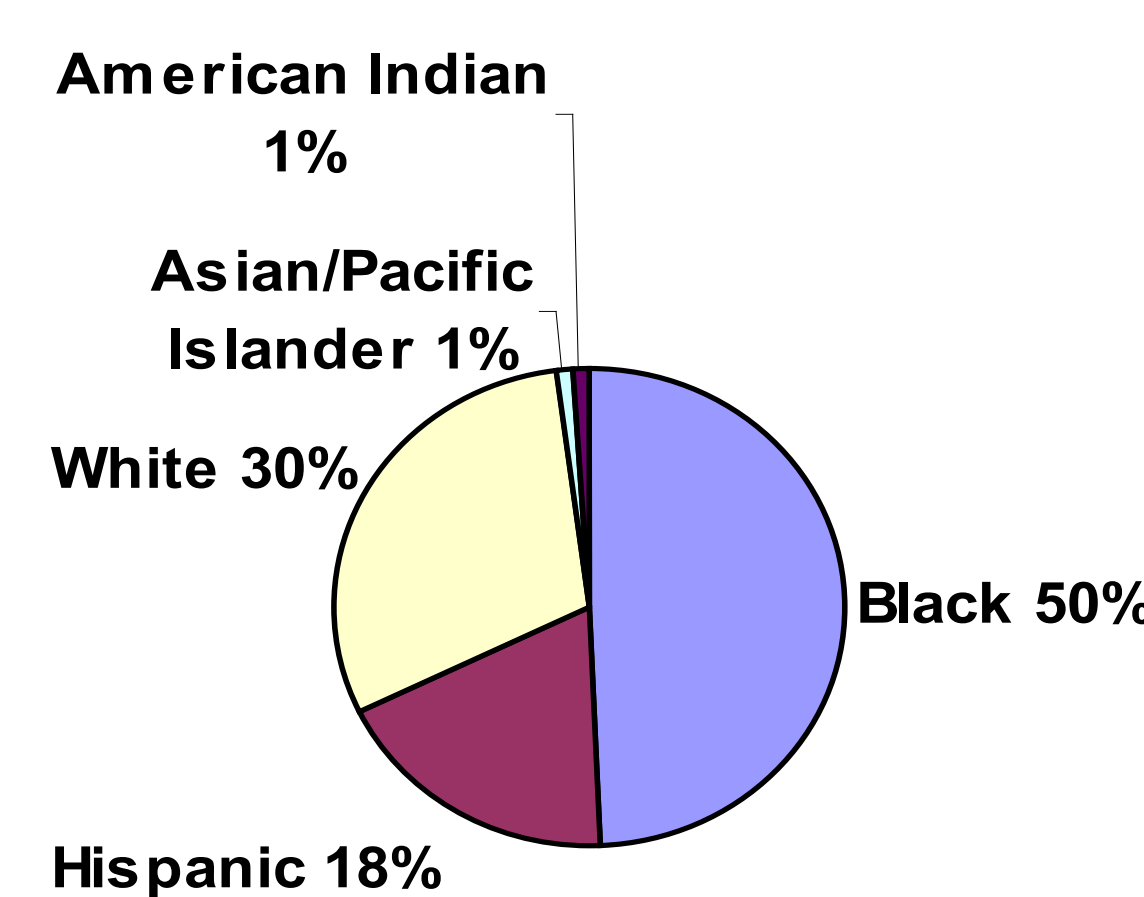


FIGURE 1 HIV/AIDS Diagnosed in the United States – CDC (Center for Disease Control and Prevention) data and statistics on the HIV/AIDS cases diagnosed in the United States in 2006. Blacks make up approximately 50% of all diagnosed cases of HIV/AIDS in the United States.

What causes HIV/AIDS disparities?

Health care disparities are believed to be caused by demographic, socio-economic and socio-cultural factors in our society. Statistics show that most Black and Hispanic men and woman, who tested positive for HIV, were infected through unprotected sex or sharing needles. These are a result of socio-economic and socio-cultural factors. For instance, these groups displayed vulnerability in terms of income, education and access to health care. Also Blacks and Hispanics, as shown by surveys, were significantly more likely to have misperceptions about risk behaviors associated with HIV infections--- These groups displayed having multiple sex partners, being less likely to use condoms and less likely to be informed about sexually transmitted diseases.

Statistical Overview

While only 6% of the Massachusetts population are black and another 6% are Hispanic according to Census figures, over 28% of people living with HIV/AIDS in Massachusetts are black (non-Hispanic), 25% are Hispanic, 1% are Asian or Pacific Islander.

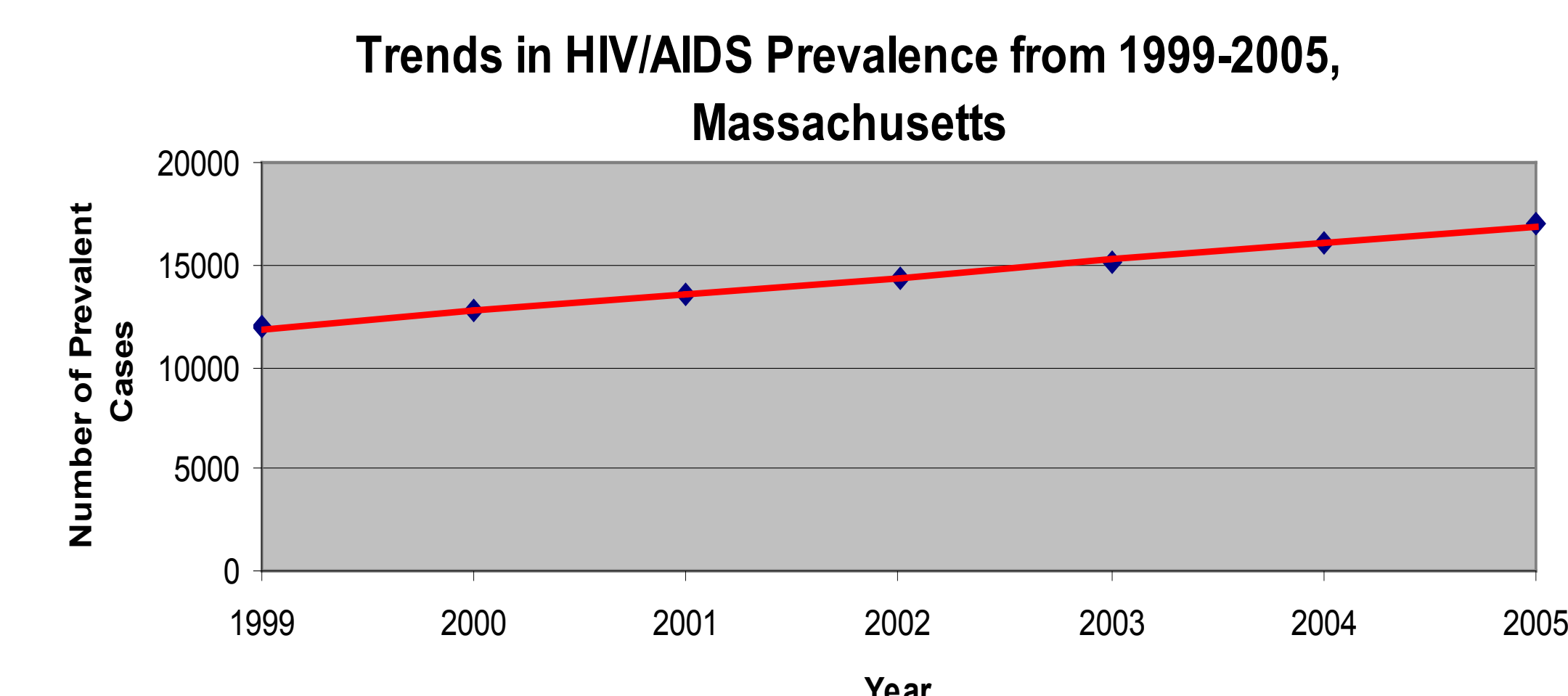


FIGURE 2 Trends in HIV/AIDS Prevalence from 1999-2005, Massachusetts- This graph shows that the overall number of persons living with HIV/AIDS in Massachusetts (prevalence) has increased approximately by 6% per year from 1999 to 2005.

People Living with HIV/AIDS in Massachusetts, 2005

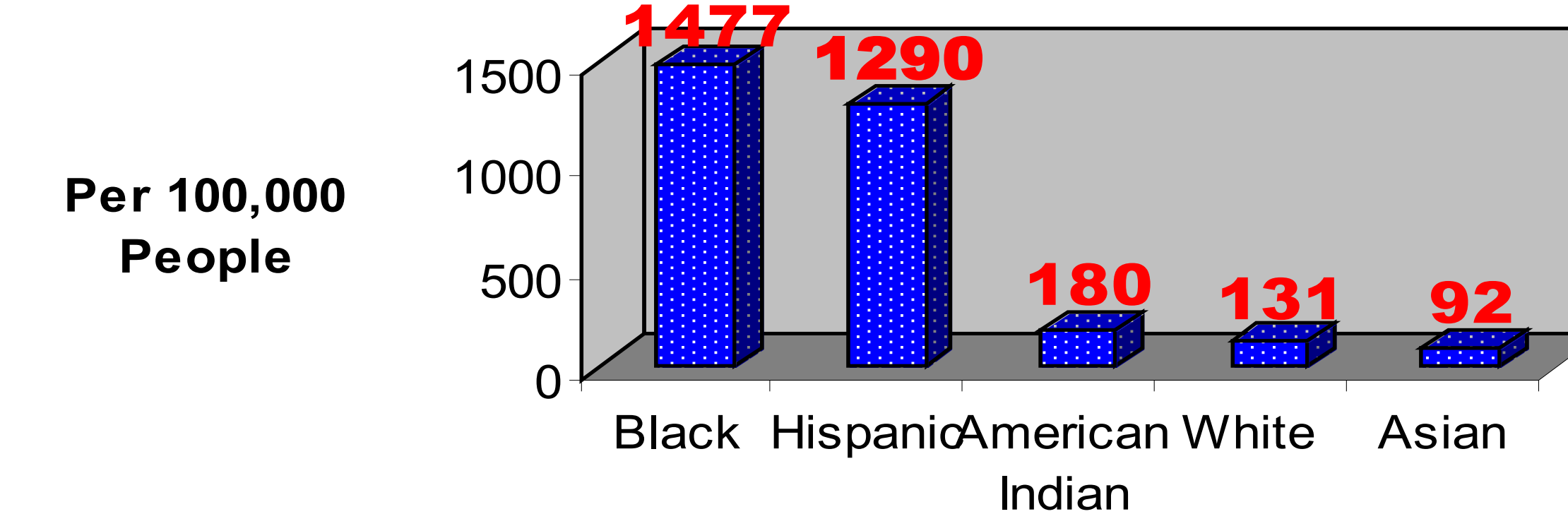


FIGURE 3 People Living with HIV/AIDS in Massachusetts- This CDC data shows how many people in Massachusetts are living with HIV/AIDS, per 100,000 people in 2005. As compared to whites, the rate of people living with HIV/AIDS is 11.3 times higher among blacks and 9.9 times higher among Hispanics.

Conclusion

As HIV/AIDS cases in Massachusetts continue to grow linearly we must find ways to prevent it from spreading. People should continue to take precautions by practicing safe sex, using sterile needles & syringes and knowing their partners. In addition, we need to expand the public health investment in programs serving the main groups of this disparity so that it exceeds their relative representation in the HIV epidemic. In addition by promoting public information on HIV, we can build a greater level of education and knowledge about HIV risk, risk reduction, HIV testing, and the availability of HIV services to reduce the HIV/AIDS health disparity within Massachusetts.

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