

# **Estimating the number of people living with HIV/AIDS in Illinois**

AIDS Foundation of Chicago

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[www.aidschicago.org](http://www.aidschicago.org)

# Methodology

Special thanks to the Florida Department of Health for sharing its methodology with AFC to estimate Illinois' HIV/AIDS prevalence.

# CDC Estimate

Number of persons estimated to be living with HIV/AIDS in the U.S. at the end of 2003:

**1,039,000—1,185,000**  
**(Midpoint=1,112,000)**

CDC-NCHSTP-DHAP: HIV/AIDS 2003 Surveillance Report, Table 12, Estimated numbers of persons living with HIV infection (not AIDS) or with AIDS at the end of 2003. Note: These are point estimates from adjusted reported case counts.

# National to State Ratio

**CDC Estimate of Number of Persons Living with AIDS in Illinois, 2003**

**14,321**

**CDC Estimated Number of Persons Living with AIDS in U.S., 2003**

**405,925**

**Ratio of Person Living with AIDS in Illinois and Persons Living with  
AIDS in U.S.**

$$14,321 / 405,926 = \mathbf{0.03528}$$

# Calculations

$$\text{Low} \quad 0.03528 \quad \times \quad 1,039,000 \quad = \quad \mathbf{37,000}$$

$$\text{Mid} \quad 0.03528 \quad \times \quad 1,112,000 \quad = \quad \mathbf{39,000}$$

$$\text{High} \quad 0.03528 \quad \times \quad 1,185,000 \quad = \quad \mathbf{42,000}$$

$$\text{Illinois Ratio} \quad \times \quad \text{CDC estimate of people living with HIV/AIDS in U.S.} \quad = \quad \text{Illinois Estimates}$$

# Checking the calculation

For each calculation (low, medium, high), AFC:

- Subtracted the number of **reported living HIV/AIDS cases**
- Subtracted 26% of cases to account for CDC's estimate of individuals living with **undiagnosed HIV infection**
- Remaining cases are for those individuals estimated to know their HIV-positive status but remain **unreported** to local and state public health authorities

26% is the midpoint of CDC's estimate that 25%-27% of living cases are among individuals who do not know their HIV-positive status

# Checking the calculation

AFC considered calculations resulting in 5-10% unreported diagnosed cases to have a high likelihood of accuracy

This presumes accurate CDC methodology to estimate national prevalence and cases of undiagnosed HIV infection

# Comparison Data

AFC considered calculations resulting in 5-10% unreported diagnosed cases to have a high likelihood of accuracy

According to IDPH, there were a total of 26,617 living HIV and AIDS cases in 2003

**12,193 HIV cases**

**14,424 AIDS cases**

# Low estimate

37,000    Illinoisans living with HIV/AIDS

26,617    Reported living

9,620    Don't know (26%)

763    2% unreported  
(known HIV+ status)

*Conclusion: 37,000 likely under estimates the number of Illinoisans living with HIV/AIDS*

# Medium estimate

|               |   |
|---------------|---|
| <u>39,000</u> | <u>Illinoisans living with HIV/AIDS</u> |
| 26,617        | Reported living                         |
| 10,140        | Don't know (26%)                        |
| 2,243         | 6% unreported<br>(known HIV+ status)    |

*Conclusion: 39,000 is likely close to the actual number of living HIV/AIDS cases but continues to represent a low percentage of unreported but diagnosed cases*

# High estimate

|               |   |
|---------------|---|
| <u>42,000</u> | <u>Illinoisans living with HIV/AIDS</u> |
| 26,617        | Reported living                         |
| 10,920        | Don't know (26%)                        |
| 4,463         | 11% unreported<br>(known HIV+ status)   |

*Conclusion: 42,000 is likely within a range of accuracy for living HIV/AIDS cases at the end of 2003.*