

Estimated HIV Incidence in Texas

Texas Department of State Health Services HIV/STD Program

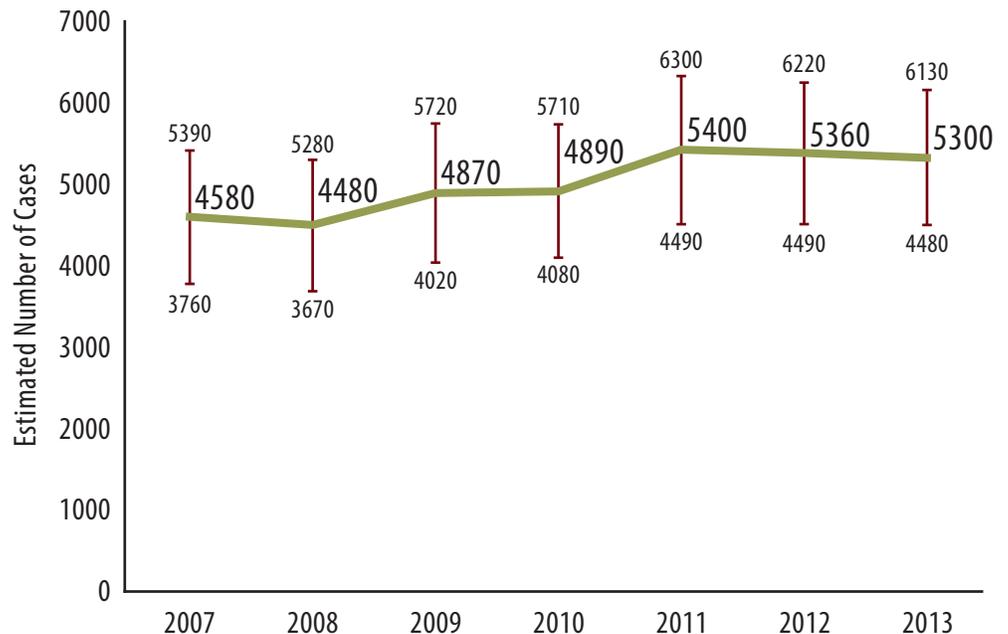
Incidence Surveillance Methodology

Since 2005, Texas has participated in a national initiative funded by the Centers for Disease Control and Prevention (CDC) to estimate HIV incidence.* The initiative uses the results from a laboratory test and information about a newly diagnosed patient’s prior HIV testing and treatment history to characterize an infection as recent or long-term regardless of the date the patient was reported as HIV-positive. Results from all newly diagnosed patients within a given year are combined to provide an estimate of the total number of newly infected patients in Texas. An in-depth description of the project’s methodology and the mathematics behind the estimation can be found online (www.plosone.org/article/info:doi/10.1371/journal.pone.0017502).

Estimates of New HIV Infections in Texas

Between 2007 and 2011, the estimated number of new cases in Texas rose, with the largest increase occurring between 2010 and 2011 (Figure A). This increasing trend peaked in 2011, which was the first point estimate to be significantly larger than at least one other year’s estimate during this entire period (the 2008 estimate). Estimates of new infection in 2012 and 2013 were similar to the 2011 levels, and all three years’ estimates were significantly higher than the 2008 estimate.

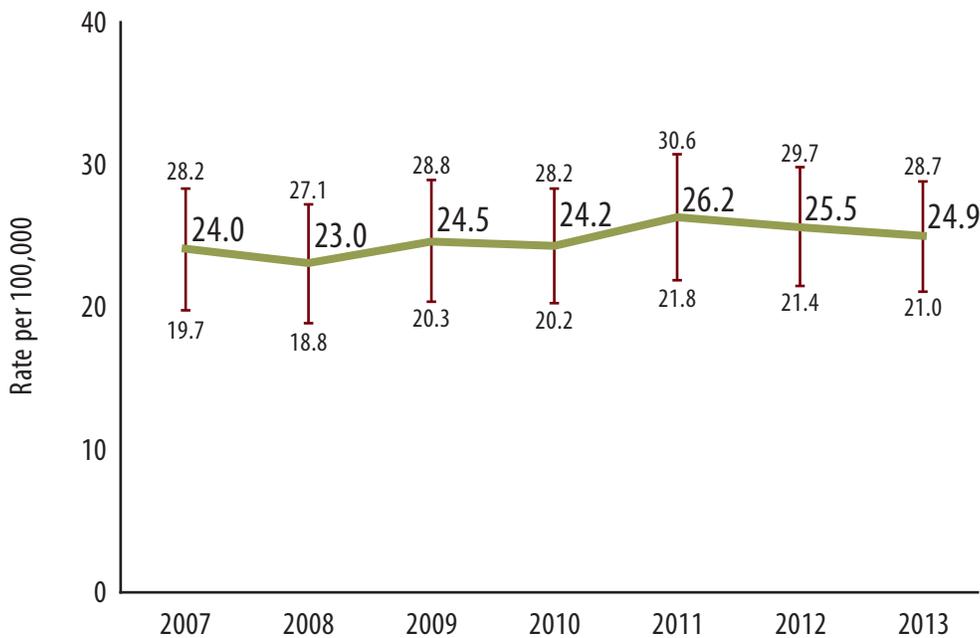
Figure A
Estimated Number of Incident HIV Cases in Texas, 2007-2013



Source: Texas Electronic HIV/AIDS Reporting System

Although the estimated number of HIV infections in Texas increased between 2007 and 2013, the estimated incidence rate during this time period stayed relatively stable. No single year's estimated incidence rate significantly differed from other years (Figure B). Between 2007 and 2010, the incidence rate estimates for Texas were similar to the national estimated incidence rate; however, the trends across these years differ. While rates in Texas remained relatively level during this time period, the national estimated incidence rate decreased from 21.4 new HIV infections per 100,000 adults and adolescents in 2007 to 18.8 per 100,000 in 2010.¹

Figure B
Estimated HIV Incidence Rate in Texas, 2007-2013



Source: Texas Electronic HIV/AIDS Reporting System

* **HIV incidence** is the estimated total number of new (total number of diagnosed and undiagnosed) HIV infections in a given period. HIV incidence estimates are used to monitor the HIV epidemic, and to help guide policies and programs created to serve communities and populations most affected by HIV. HIV incidence estimates reflect the leading edge of HIV transmission, HIV infection trends, and the impact of HIV prevention efforts.

** Point estimates and 95% confidence intervals are presented for each year in Figures A and B. The **point estimate** serves as the best estimate of the true number of incident HIV infections in a given year. The **95% confidence interval** represents a range of estimated values with a 95% probability of containing the true number of incident HIV infections in the population.

Reference:

1. Centers for Disease Control and Prevention. Estimated HIV incidence in the United States, 2007–2010. HIV Surveillance Supplemental Report 2012;17(No. 4). www.cdc.gov/hiv/topics/surveillance/resources/reports/#supplemental. Published December 2012. Accessed 1/7/2014.



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