

Changes in Methodology for the 2010 Surveillance Summary

The Wisconsin AIDS/HIV Program has had named-based reporting of HIV and AIDS since 1985. During this time, HIV surveillance has evolved and improved, allowing more accurate analyses at the state and national levels. For example all states now have name-based HIV and AIDS reporting, and the implementation of eHARS, the CDC mandated electronic HIV surveillance database, allows better tracking of case residency. As a result of improvements in the quality of the surveillance data as well as the need for a more clear evaluation of Wisconsin's HIV prevention and care efforts, three important methodological changes were implemented with the 2010 surveillance summary. These methodological changes have caused an apparent decrease in the number of incident and prevalent cases reported, which are in addition to any true changes in these numbers. A description of the three changes and a summary of the impact are described below.

1) Death match

During 2010, AIDS/HIV Program staff matched the HIV surveillance data to 25 years of Wisconsin death records (1983-2008) from the Wisconsin Vital Records Office, which resulted in identifying 155 persons with HIV who have died since 1983 and whose death was not previously recorded in the HIV surveillance database. The AIDS/HIV Program will continue to conduct this analysis annually, and will also match the HIV surveillance data with national death indices to identify additional deaths. The result of identifying additional deaths is a more accurate report of persons presumed to be alive and living with HIV in Wisconsin, which allows a more accurate assessment of the use of care services and evaluation of health outcomes.

2) Exclusion of cases known to be living in another state from prevalence estimate

Persons with HIV who were once reported to be living in Wisconsin but who are known to have moved to another state are no longer included in the annual prevalence estimate. This quality improvement initiative has been made possible by Routine Interstate Duplicate Review (RIDR), a CDC process aimed at eliminating duplicate reports of HIV and AIDS cases among states and more accurately identifying the state of initial HIV diagnosis. The RIDR process has become more effective as additional states have moved to name-based HIV reporting. During the analysis of the 2010 surveillance data, 821 cases that are known to have moved out of Wisconsin were removed from the prevalence estimate. As stated above, better prevalence data allows a more accurate assessment of the use of care services and evaluation of health outcomes.

3) Exclusion of cases initially diagnosed with HIV in another state from the incidence estimate

The annual incidence estimate in previous reports included both cases receiving their first HIV diagnosis in Wisconsin during the year, as well as cases that were already HIV positive and moved into Wisconsin during the year. Starting with the 2010 surveillance report, only cases receiving their first HIV diagnosis in Wisconsin will be included in the incidence estimate. Those moving in to Wisconsin during the year will be included only in the prevalence estimate. This change is being implemented because name-based reporting and the RIDR process have allowed a more accurate assignment of the state of initial HIV diagnosis. During 2010 there were 265 new cases of HIV infection reported in Wisconsin and 111 cases of HIV infection reported among persons who were already HIV positive and moved into Wisconsin. The new incidence estimate now reflects only new cases of HIV infection and helps to better target and measure prevention efforts.

In summary, three important methodological changes were implemented in 2010 that have caused an apparent decrease in the number of incident and prevalent cases reported in

Wisconsin. These changes included the death match, exclusion of those known to have moved out of Wisconsin from the prevalence estimate, and exclusion of those who received their initial HIV diagnosis in another state and moved in to Wisconsin from the incidence estimate. The flow of HIV cases in and out of Wisconsin is depicted in the figure below. As a result of these changes, the prevalence estimate was reduced by 976 and the incidence estimate for 2010 (n=265) will appear to be much lower than that reported in 2009 (n=443). Because of the changes in methodology, users of the HIV surveillance data should not compare the numbers presented for 2010 to numbers reported in previous reports. Instead, the new methods have been applied to estimates from previous years in the 2010 report to allow for trend analysis. The changes implemented during 2010 have improved the quality of the data, have allowed a more accurate presentation of the epidemiology of HIV in Wisconsin, and allow better evaluation of care and prevention services as well as health outcomes.

Additional information about the methods used in the surveillance analyses can be found in the Technical Notes section at the end of the report.

Flow of cases of HIV infection in and out of Wisconsin

