

MICHIGAN UNMET NEED ESTIMATE AND ASSESSMENT RYAN WHITE CARE ACT TITLE II: FY2009 GRANT APPLICATION

a) Unmet Need Estimate

b) Narrative

Population Estimates

The Unmet Need Framework shows that, for the time period of October 2007 through September 2008, there were an estimated 5,856 persons living with HIV and 7,761 persons living with AIDS in Michigan, for a total of 13,617. This total is lower than the numbers shown in the Epidemiology table due to different HIV diagnosis date restrictions, as described below. The Framework requests a measurement of persons who are aware of their infection status. In general HIV surveillance is not able to capture HIV status awareness, however, this year we have devised an algorithm to serve as a proxy for status awareness. A reported case of HIV that meets any of the three following conditions is considered to be aware of their infection status: Condition 1: Answered 'yes' to any of the questions on the HIV/AIDS case report form: "Informed of their infection", "Receiving or Referred for HIV medical services or substance abuse treatment", or "Receiving anti-retroviral therapy"; Condition 2: Receipt of a CD4 or VL in the defined period; Condition 3: Documented progression to AIDS.

The population estimates in the Framework include all persons reported to surveillance who tested positive prior to October 1, 2007. Persons diagnosed after September 30, 2007 were excluded from analysis to eliminate the possibility of including those who were very recently diagnosed and had not yet obtained care.

Estimates of People with Met Need

The Unmet Need Framework shows 8,182 people estimated have met need.

Estimates of Unmet Need

The Unmet Need Framework shows 5,435 people estimated to not be in care.

Data Sources and Estimation Methods Used

The following methodology was used in order to estimate unmet need for HIV-related primary care in Michigan.

First, two existing databases were selected:

- *The e-HIV/AIDS Reporting System (eHARS)*. eHARS is the surveillance database that contains information on all reported cases of HIV/AIDS in Michigan, and is the database that replaced HARS. eHARS contains the population-based data needed to determine the population size of HIV-infected persons. Both HIV and AIDS are notifiable conditions in Michigan, so both are included in eHARS.

- *Laboratory Database*. Mandatory laboratory reporting in Michigan was implemented on April 1, 2005 for positive diagnostic HIV tests and July 1, 2005 for all HIV viral load and CD4 tests. These laboratory results are contained in an ACCESS database maintained by the HIV Surveillance program.

Second, "met need" was defined as having a laboratory result for a CD4 count and/or percent or a viral load measure during a 12 month time period (October 1, 2007 through September 30, 2008) among patients in eHARS. There was a proxy used to assume awareness of HIV status as described above (See Population estimates...).

Third, laboratory data were used to determine each patient's most recent CD4 count, CD4 percent, and/or viral load test date. These laboratory results were then joined to surveillance data in eHARS. Unmet need was then calculated by determining the number of persons in eHARS who were diagnosed prior to October 1, 2007, aware of their infection, and had not received a viral load or CD4 test between October 1, 2007 and September 30, 2008.

While the combination of laboratory and surveillance data offers an ideal way to measure unmet need, there are some limitations to the data that should be noted. As mentioned above, mandatory laboratory reporting is new in Michigan. Thus, some laboratory results may not have been captured by the laboratory database as laboratories were rolled into the new reporting requirements. However, all of the major labs that were rolled into the new requirements at a date later than anticipated did provide historical lab data, so this is not likely to be a major source of discrepancy. In addition, persons who move out of state will automatically be counted as unmet need cases if Michigan's HIV Surveillance Program is not notified of the changes in residency. Michigan's HIV Surveillance Program does participate in Routine Interstate Duplicate Review (RIDR), in which Michigan collaborates with other states under the guidance of the Centers for Disease Control and Prevention to assess and resolve potential case matches between the states. This effort limits the possibility of residency affecting unmet need, although not all states participate in a timely way. Similarly, if a person died and Surveillance was not notified, that person would be counted as an unmet need case. Michigan's HIV Surveillance Program also conducts a death match annually to minimize this undercount. Finally, there inevitably is room for error in the laboratory reporting system. For example, cases can potentially be falsely matched or non-matched to the surveillance database. Overall, however, the laboratory reporting system is strong and checks are in place to ensure the quality of those data.

Assessment of Unmet Need: Analysis of Those Not in Care

- Demographic data

Of the 5,435 persons with unmet need, 78% are male and 22% are female. This distribution of sex was similar among persons with met need. Persons with unmet need are more likely than persons with met need to be IDU (16% versus 10%), and less likely to be MSM (44% versus 51%). Persons with unmet need are very similar to persons with met need according to age at HIV diagnosis and current age. The median age at HIV diagnosis is 34 years and the median current age of all cases is 42 years. The majority of persons with HIV, whether met or unmet need, are black, non-Hispanic (58%) or white, non-Hispanic (35%). In terms of geography, those living in outstate Michigan have a slightly higher percentage of unmet need (41%) compared to those living in Southeast Michigan (38%).

Section 2 shows that the percentage of unmet need is highest among persons with IDU (51%), MSM/IDU (45%), or No Identified Risk (44%) mode of HIV transmission. In addition, persons who are adolescent or young adult at HIV diagnosis have higher proportions of unmet need than other age groups (42% among 13 – 19 year olds and 46% among 20 – 24 year olds). When considering a person's current age, those persons living with HIV who are older are more likely to have unmet need (46% of persons currently 65 and older compared with 38% of persons 20 to 24). Hispanic persons living with HIV have the highest proportion of unmet need (50%) according to race/ethnicity. American Indians/Alaskan Natives also have a high percentage of unmet need (40%), but the number of persons in this group is too small to allow us to draw definitive conclusions about the level of unmet need in American Indians/Alaskan Natives in Michigan. In terms of geography, those living in out-state Michigan have a slightly higher percentage of unmet need (41%) compared to those living in Southeast Michigan (38%). In particular, the Saginaw-Bay City MSA (51%), Benton Harbor MSA (49%), and Jackson MSA (47%) have high proportions of unmet need when compared to other MSAs in the state. These proportions have decreased dramatically from FY 2007 where the Jackson MSA had 58% unmet need and the Lansing-East Lansing MSA had 70% unmet need (currently at 39%).