Estimation methods

The Division used one data source to produce the numbers in the Unmet Need Framework: eHARS (enhanced HIV/AIDS Reporting System), the surveillance database that contains information on all reported cases of HIV in Michigan. All stages of HIV, including stage 3 (formerly known as AIDS) are notifiable diseases in Michigan, so both are included in eHARS.

In addition to information on reported cases, eHARS also houses all HIV laboratory tests. Michigan implemented mandatory HIV laboratory reporting on April 1, 2005 for positive diagnostic HIV tests and July 1, 2005 for all HIV viral load (VL) and CD4 tests. These laboratory results are managed in Michigan's new HIV Laboratory Management System (LMS) and imported into eHARS. Completed labs are current in eHARS within two weeks.

Primary Medical Care (PMC) was defined as having a laboratory result for a CD4 count and/or percent or a VL measure during a 12-month time period (October 1, 2014 through September 30, 2015) among patients in eHARS who were aware of their infection. In order to be included in analysis of PMC and considered aware of their infection, they had to meet one of the following criteria:

1) Person had 'yes' to any one of the following on the HIV adult case report form (ACRF):
   a. "Patient informed of their infection?"
   b. "Is patient receiving or been referred for: HIV related medical services?"
   c. "Is patient receiving or been referred for: Substance Abuse treatment services?"
   d. "Has patient received PCP prophylaxis?"
   e. "Currently using ARV?"
   Or
2) Person had a CD4 count or percent or a viral load test documented in eHARS (at any point in time)
   Or
3) Person diagnosed with HIV stage 3

eHARS surveillance and laboratory data were used to determine each patient's most recent CD4 count, CD4 percent, and/or VL test date. Persons diagnosed on or after October 1, 2014 were excluded from analysis to eliminate the possibility of including those who were very recently diagnosed and had not yet obtained care. Unmet need was calculated by determining the number of persons in eHARS who were diagnosed before October 1, 2014 and had not received a VL or CD4 test between October 1, 2014 and September 30, 2015.

Limitations

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. Persons who move out of state will automatically be counted as having unmet need if Michigan's HIV Surveillance Program is unaware of the change in residency. The Surveillance Program participates in Routine Interstate Duplicate Review (RIDR), in which Michigan collaborates with other states under the guidance of the Centers for Disease Control and Prevention (CDC) to assess and resolve potential case matches between the states. This effort minimizes the effect of changes in residency on unmet need. 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 update vital status, thus minimizing the impact on unmet need. Finally, there inevitably is room for error in the LMS. For example, cases can potentially be falsely matched or non-matched to the surveillance database. Overall, however, the LMS is strong and checks are in place to ensure the quality of those data.

Assessment of unmet need

Of the 3,678 persons with unmet need, 77% are male and 23% are female. This distribution by sex is roughly the same among persons with met need and among all persons with HIV, so there does not appear to be a disproportionate level of unmet need by sex. As of October 2015, both sexes report a similar percentage of unmet need (25% for males and 24% for females).

The majority of persons with HIV in Michigan, whether with met need or unmet need, are black, non-Hispanic (56%) or white, non-Hispanic (35%). Hispanic persons represent only 5% of all persons living with HIV (PLWH) in Michigan, but of Hispanics living with HIV, 32% have unmet need – the highest proportion in comparison to white persons (20% unmet need) and black persons (26% unmet need).

Individuals living with HIV non-stage 3 in Michigan continue to be more likely to have unmet need than people living with HIV stage 3. Twenty-nine percent of people living with HIV non-stage 3 have unmet need, while only 20% of people living with HIV stage 3 have unmet need.

Persons with unmet need are very similar to persons with met need when comparing age at HIV diagnosis. PLWH who were young adults (ages 20-24) at HIV diagnosis have a higher proportion of unmet need when compared to other age groups (29%), followed by teens ages 13-19 (27%), and adults ages 25-29 (26%). In general, unmet need is higher among the younger age groups than among those aged 35 or more.

By risk behavior, injection drug users (including those who are MSM and injection drug users) have the highest percentage of unmet need (34%), followed by heterosexual males and blood recipients/perinatal exposures, both at 25%.

In terms of geography, those living in Out-State Michigan have a similar proportion of unmet need as those living in the Detroit Metro Area (DMA) (22% in Out-State and 25% in the DMA). When looking at individual Metropolitan Statistical Areas (MSAs), the areas with the highest percentages of unmet need are the Benton Harbor MSA (31%), the Jackson MSA (29%), and the Flint MSA(24%), all of which have seen decreases in unmet need in 2014.

Unmet need has remained relatively constant over the past 5 years (~ 32%), although the proportion of those living with unmet need appears to have decreased considerably within the last year (24%). Previously, the proportion of those living in Out-State Michigan with unmet need had been higher than the proportion of unmet need among those living in the DMA, but in the past several years those proportions have been similar. Unmet need has consistently been the highest for the Benton Harbor MSA (31%), Hispanics (32%), young adults ages 20-24 (29%), and injection drug users (34%).

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