

# 2012 Profile of HIV in the Detroit Metro Area

## Trends in HIV Data

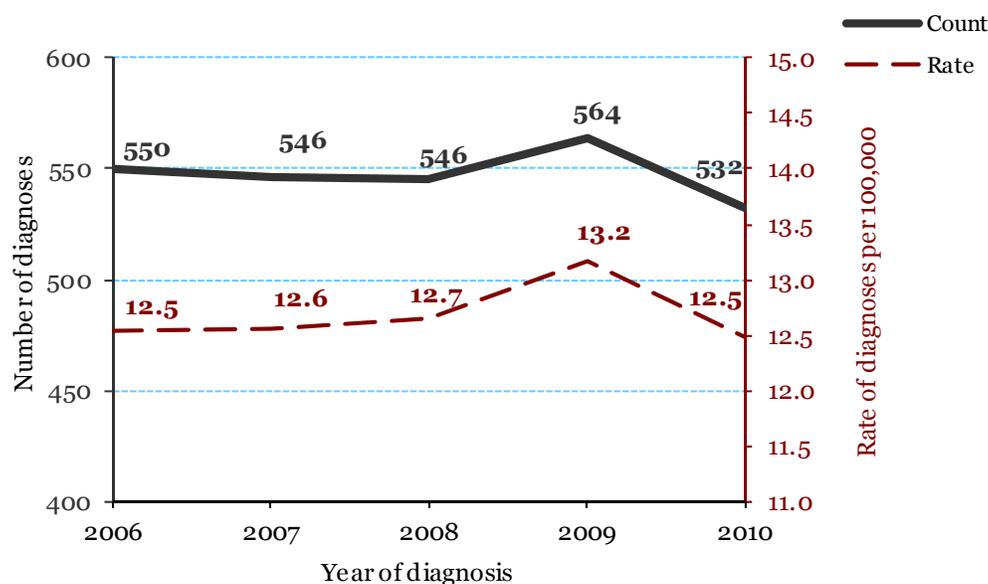
Data from enhanced HIV/AIDS Reporting System (eHARS)

To evaluate recent trends in new HIV diagnoses in the DMA, we estimated the number of persons newly diagnosed with HIV infection each year by adjusting the number of reported cases diagnosed between 2006 and 2010. This adjustment was applied to account for cases that may not have been reported to the health department by January 1, 2012. The adjustments were calculated by weighting the data. Please see the Forward (pages v-vi) for an in-depth description of the methods used to evaluate trends. The full Trends documents can be found by visiting the following link: [http://www.michigan.gov/mdch/0,4612,7-132-2940\\_2955\\_2982\\_46000\\_46003-36304--,00.html](http://www.michigan.gov/mdch/0,4612,7-132-2940_2955_2982_46000_46003-36304--,00.html).

### New diagnoses of HIV, 2006-2010:

The number and rate of new HIV diagnoses remained stable in the DMA between 2006 and 2010, with an average of 548 new cases each year (12.7 cases per 100,000 population) (figure 7). This surpasses the statewide rate of 8.1 cases per 100,000.

**Figure 7: Adjusted number and rate of new HIV diagnoses in the Detroit Metro Area, 2006-2010**



### New diagnoses by risk, 2006-2010:

Between 2006 and 2010, the number of newly diagnosed persons who were men who have sex with men (MSM) increased by an average one percent per year (figure 8). The number of newly diagnosed persons who were injection drug users (IDU) decreased by an average of 10 percent per year, and the number of new diagnoses also decreased among persons with heterosexual risk by an average of eight percent per year. The decrease in new diagnoses among IDU has been seen for the past seven consecutive annual trend reports. Data from Michigan's HIV Behavioral Surveillance suggest reductions among IDU may be partly attributable to the success of harm reduction programs, such as needle exchanges. This is the third consecutive annual trend report to show decreases among persons with heterosexual risk. The "other known" risk category includes perinatal and blood product transmission. The numbers have been low in this group for many years due to programmatic successes in preventing perinatal and blood-borne transmissions.

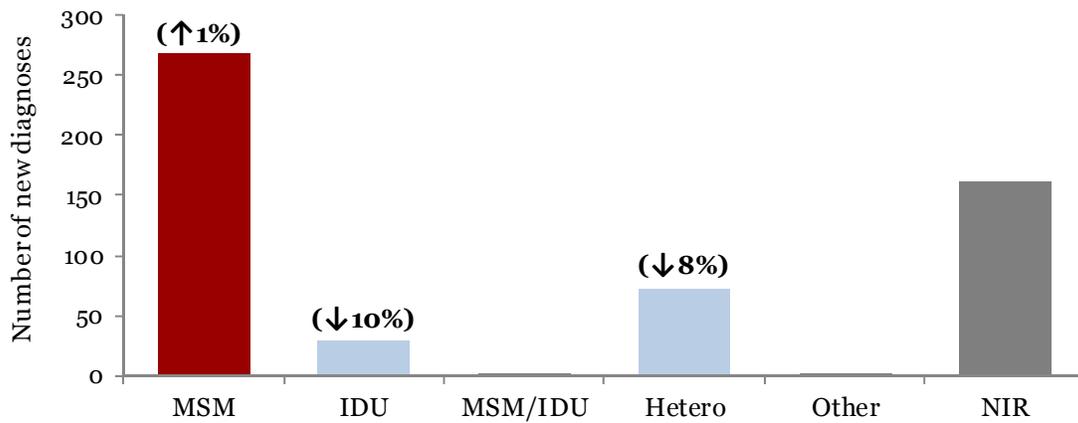
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Newly diagnosed persons with no identified risk (NIR) includes males who reported sex with females of unknown risk/HIV status as their only risk and males and females for whom no risk has yet been reported. This group accounts for about 28 percent of new diagnoses each year (Trends) but only 18 percent of all persons currently living with HIV in the DMA (regardless of year of diagnosis) (table 3, page 163).

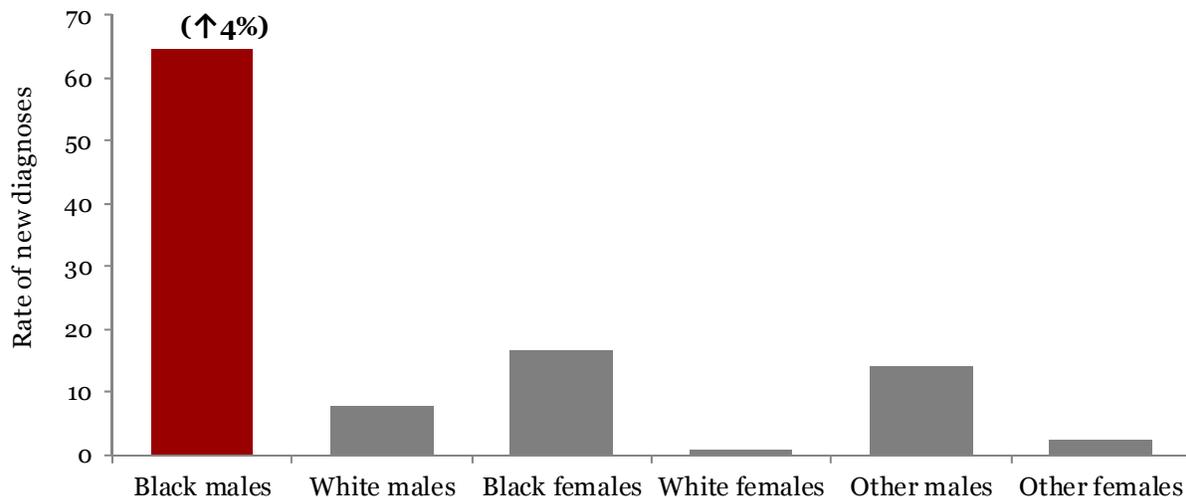
**Figure 8: Adjusted number of new HIV diagnoses in the Detroit Metro Area in 2010 and trends between 2006-2010, by risk**



### New diagnoses by race and sex, 2006-2010:

The rate of new diagnoses increased among black males (average 4 percent per year) between 2006 and 2010 (figure 9). The rate also increased among all males by an average two percent per year, driven by the increase among black males. The rate among females overall decreased by an average six percent per year for the second annual consecutive trend report (Trends).

**Figure 9: Adjusted rate of new HIV diagnoses in the Detroit Metro Area in 2010 and trends between 2006-2010, by race/sex**



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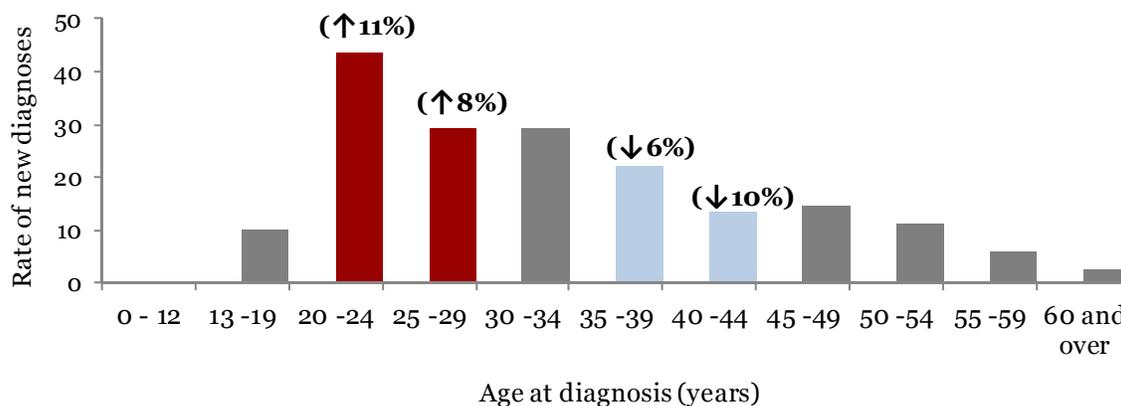
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### New diagnoses by age at HIV diagnosis, 2006-2010:

The rate of new HIV diagnoses increased significantly among persons 20-24 years of age (an average 11 percent per year) and those 25-29 years of age at HIV diagnosis (an average eight percent per year) (figure 10). For the first time in six trend reports, the rate did not increase among those 13-19 years of age at diagnosis. This is the second consecutive report, however, showing increases among 20-24 and 25-29 year olds. Additionally, rates in older age groups (35-39 year olds and 40-44 year olds) decreased significantly by an average six percent per year and 10 percent per year, respectively. Twenty to twenty-four year olds now have the highest rate of diagnosis of any age group.

**Figure 10: Adjusted rate of new HIV diagnoses in the Detroit Metro Area in 2010 and trends between 2006-2010, by age at diagnosis**



### New diagnoses by Detroit zip code, 2009-2010:

Figure 11 shows HIV infection cases diagnosed in 2009 and 2010 by zip code at diagnosis for the City of Detroit as well as Highland Park and Hamtramck. There were 587 new HIV diagnoses total, 303 in 2009 and 284 in 2010. Twenty-two of the cases were residents of Highland Park or Hamtramck, and the rest lived in the City of Detroit.

The map shows that the highest numbers of new diagnoses were in zip codes 48203 and 48205 (41-50 new diagnoses each), followed by zip codes 48219, 48227, and 48238 (31-40 new diagnoses each). All the rest of the zip codes had 30 or less new diagnoses.

Geocoding and mapping data to the zip code level may assist with more focused prevention activities in areas of high HIV burden. Understanding the specific areas of the city in which new HIV diagnoses occur allows for resources to be maximized in these areas, potentially reducing the risk of transmission and the overall prevalence of HIV.

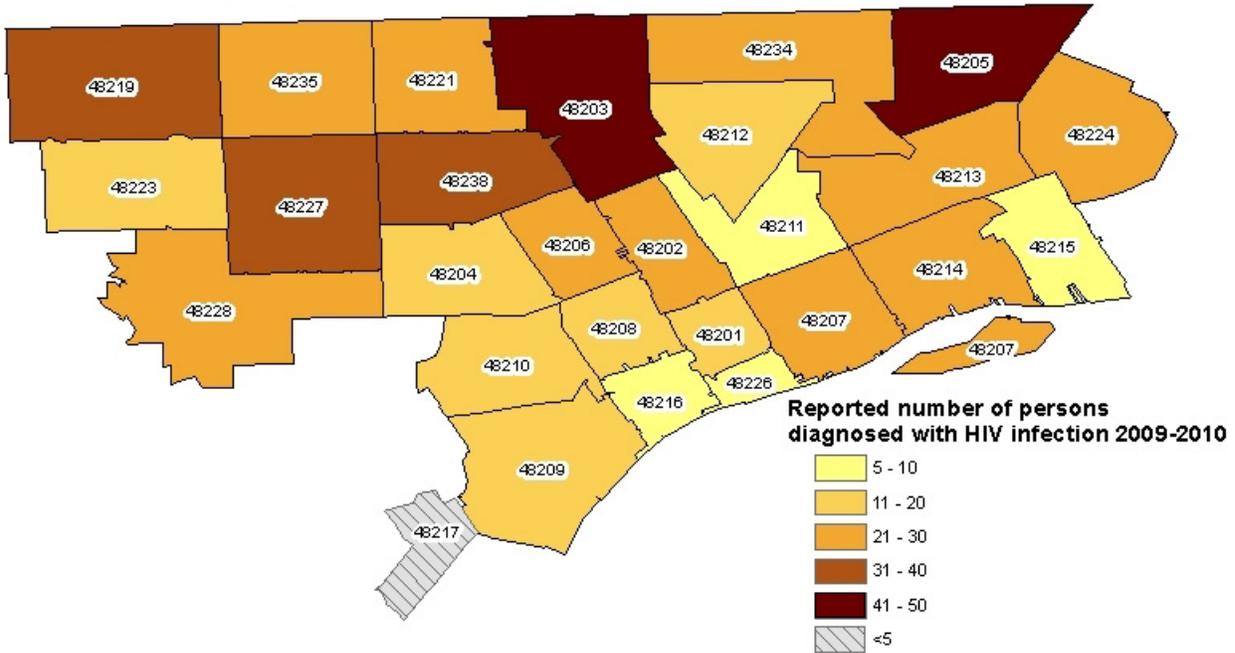
It is important to note that this map shows the number of reported cases, which are not adjusted for reporting delay. It also does not take into account persons unaware of their infection. Thus, this map should be viewed as the minimum number of new diagnoses for the two year period.

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**Figure 11: Reported number of new HIV diagnoses in the City of Detroit, Highland Park, and Hamtramck by zip code, 2009-2010 (N=587\*)**



\*Data were geocoded in 2010 for 2009 cases and 2011 for 2010 cases, and numbers should be viewed as minimum estimates due to reporting delay.

### **New diagnoses, deaths and prevalence of HIV by year:**

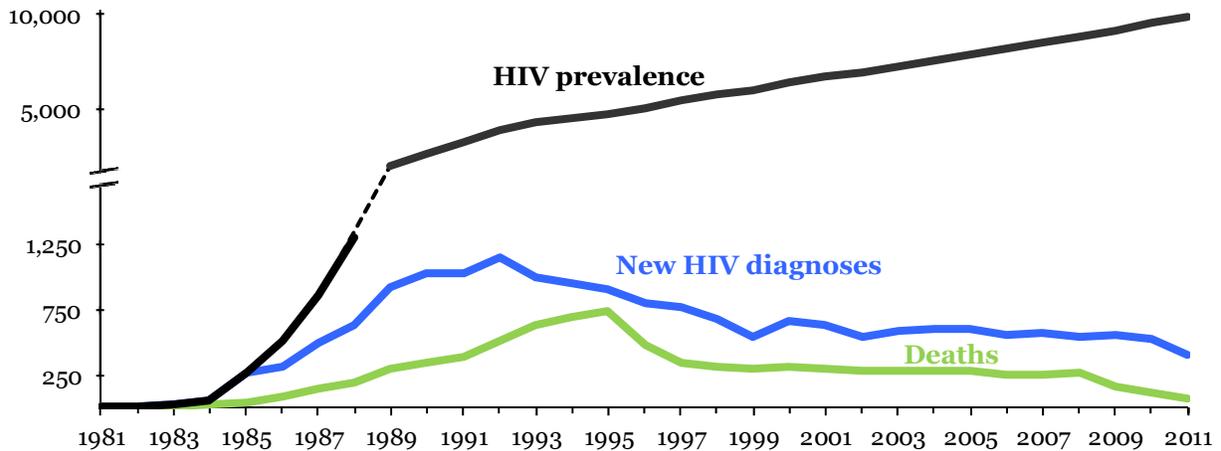
The unadjusted number of new HIV diagnoses, number of deaths among HIV-positive persons, and HIV prevalence are presented in figure 12. The trend among new HIV diagnoses reflects reported cases. These data were not adjusted for reporting delay as they were in figures 7-10. Consequently, the decreases in new diagnoses seen in the most recent years will likely level out as more cases diagnosed during those years are reported. Although the number of deaths among HIV-positive persons is decreasing, the number of new HIV diagnoses is stable. As a result, HIV prevalence (the number of people currently living with HIV in Michigan) continues to rise.

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**Figure 12: New diagnoses, deaths, and prevalence of HIV in the Detroit Metro Area by year, January 2012**



### Deaths among HIV-positive persons by race and sex:

Figure 12 shows the number of HIV-positive Detroit Metro Area (DMA) residents reported as deceased by a local health department, the department of vital records (via a data match, death transcript, or death certificate), the National Death Index, or an alternate source. The number of deaths increased in all race/sex groups from the beginning of the epidemic through approximately 1994-1995. The number of deaths decreased markedly between 1995 and 1998 and were relatively stable until 2001. It should be noted that the percent decrease in deaths among white males (76 percent) between 1995 and 2001 was more pronounced than the percent decrease among black males (59 percent), and the percent decrease among white females (68 percent) was larger than the percent decrease among black females (44 percent). Between 2001 and 2009, the number of deaths among all groups fell once again. The percent decrease among white males (54 percent) was again greater than the percent decrease in black males (48 percent). The number of deaths did not change as appreciably in black females (22 percent). Deaths among white females decreased by 60 percent between 2001 and 2009, but this decrease is exaggerated as there is a small number of deaths in this group (data not shown in tables).

**Figure 13: Detroit Metro Area HIV deaths by race/sex, January 2012**

