

Trends in New Diagnoses of HIV Infection in Detroit Metropolitan Statistical Area (MSA), 1998-2002

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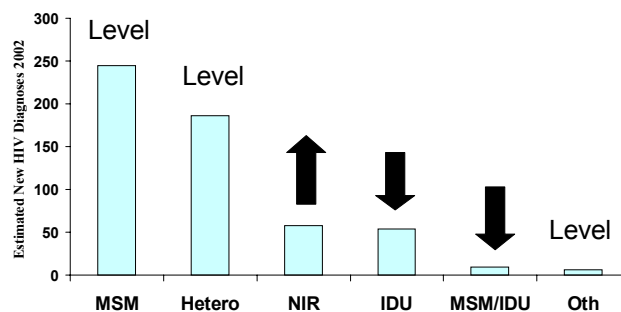
Methods: The Detroit MSA consists of Wayne, Oakland, Macomb, Monroe, and St. Clair counties. To evaluate trends over time, we estimated the number of persons newly diagnosed with HIV infection each year and determined if there was a statistically significant change from 1998 through 2002. Numbers are estimated by adjusting the number of reported cases for people diagnosed in 1998-2002 for those who may not have been reported to the health department by January 1, 2004. This report is the first time this adjustment was based on only Michigan reporting patterns. Previously, adjustments were made using multi-state regional data. The date of new HIV *diagnosis* does not tell us when persons were first *infected*, because their HIV diagnosis may take place months or years after infection. However, this is the best current measure of how fast the epidemic is spreading among different populations. Over this time period No Identifiable Risk (NIR) cases were also redistributed to other risk categories based on past patterns of NIR reclassification.

Overall: The number of persons newly diagnosed with HIV in the Detroit MSA each year was roughly level at about 600 cases between 1998 and 2002. These new diagnoses include persons who learn of their HIV infection status after developing symptoms of AIDS. Each year, there are more new diagnoses of HIV infection than deaths. Therefore, the reported number of persons living with HIV/AIDS in the Detroit MSA is increasing. MDCH estimates that 11,200 residents are living with HIV infection in the Detroit MSA (including those with AIDS).

Risk Behaviors for HIV Infection, 1998-2002: The proportion of persons diagnosed each year with HIV infection between 1998 and 2002 decreased significantly in IDUs from 17% to 10% (109 to 54 cases) and MSM/IDUs from 4% to 2% (23 to 9 cases) and increased significantly in the No Identifiable Risks (NIRs) from 6% to 10% (39 to 58 cases). Before adjusting cases for those reported without risk we expect cases diagnosed and reported more recently to be less likely to have a known mode of transmission. However, since these data were adjusted for this trend, the fact that we still see a significant increase in the proportion of NIRs means that this increase cannot be attributed to this expected pattern in risk classification.

Of the 558 new HIV infections diagnosed in 2002, there were 245 (44%) diagnoses among MSM, 186 (33%) among heterosexual's, 58 (10%) among NIR's, 54 (10%) among IDU's, 9 (2%) among MSM/IDU's, and 6 (1%) among other risk infections. This year the heterosexual category is made up of two subgroups: 'high risk' heterosexuals and 'presumed' heterosexuals. A 'high risk' heterosexual is someone who had a partner that was IDU, bisexual (for females), a recipient of HIV infected blood, or known to be infected with HIV. A 'presumed' heterosexual is someone who had heterosexual sex as their only risk but their partner's risk is unknown. This is the first year we included "presumed" heterosexuals with the "high risk" heterosexuals in one category. This explains why the heterosexual category makes

Number of New HIV Diagnoses in 2002, and Trends 1998-2002

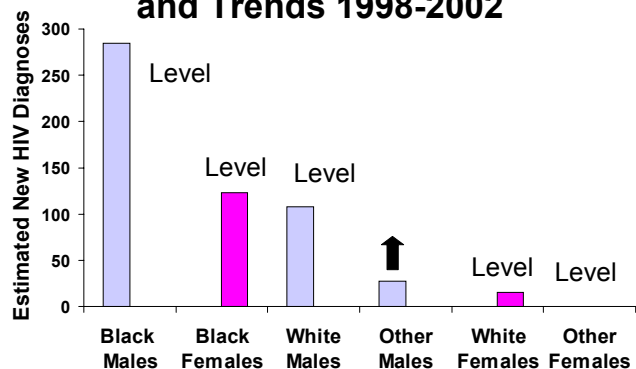


up a larger percentage of cases compared to previous trend analysis documents. Other risks include transmission from blood products and perinatal exposures. Less than 1 percent of diagnoses were among persons who first acquired infection from blood products received either before 1985 in the U.S. or in other countries. Less than 1 percent of diagnoses were among infants born to HIV-infected mothers.

Race and Sex 1998-2002: The proportion of new HIV diagnoses in each race-sex group did not change significantly between 1998 and 2002, except in non-white/non-black males from 2% to 5% (16 to 27

cases). In 2002, there were 285 (51%) new diagnoses in black males, 123 (22%) in black females, 108 (19%) in white males, 15 (3%) in white females, and 0 (0%) in non-white/non-black females. Blacks are impacted disproportionately to their numbers in the population. Black males and females make up 23 percent of the population of the Detroit MSA but 87 percent of persons living with HIV infection.

Number of New HIV Diagnoses in 2002, and Trends 1998-2002



Age at HIV Diagnoses 1998-2002: The proportion of persons diagnosed each year with HIV infection only changed significantly among those infected at 20-24 years of age from 8% to 10% (53 to 56 cases). In 2002, there were 3 (1%) persons infected at 0-12

years of age, 19 (3%) 13-19 years, 56 (10%) 20-24 years, 167 (30%) 25-34 years, 176 (32%) 35-44 years, and 108 (19%) 45+ years. In addition, 27 (5%) cases were missing an age at HIV diagnoses.

Residence 1998-2002: The proportion of persons diagnosed each year with HIV infection decreased significantly in the City of Detroit from 70% to 65% (458 to 365 cases) and increased significantly in Oakland County from 10% to 15% (62 to 87 cases). The remaining cases were residents of Wayne (excluding Detroit), Macomb, Monroe, and St. Clair Counties and trends in these areas were level.

Concurrent HIV and AIDS Diagnosis, 1998-2002: The overall proportion of persons newly diagnosed with HIV infection, who were diagnosed with AIDS at the same time, did not change significantly from 1998 to 2002 with 26% of new HIV/AIDS infections being concurrent in 2002. However, the proportion among white males concurrently diagnosed declined significantly from 38% to 26% (44 to 28 cases), while the proportions of the other race-sex groups did not change significantly from 1998 to 2002. In 2002, there were 78 (27%) concurrent diagnoses in black males, 22 (22%) in black females, 10 (37%) in non-white/non-black males, 6 (40%) in white females, and 0 in non-white/non-black females. Every concurrent diagnosis represents a failure to start treatment early. Persons who are unaware of their HIV infection cannot benefit from antiretroviral therapy and have a poorer prognosis than those diagnosed early in the disease course. They are also not accessible for secondary prevention.

Trends in New Diagnoses of AIDS in Southeast Michigan, 1998-2002

New AIDS cases were statistically level at about 400 persons annually between 1998 and 2002. Among persons diagnosed with AIDS, the percentage for which this diagnosis was also their initial HIV diagnosis was an average of 40% of the AIDS cases. In order to decrease the number of new AIDS cases, we need to continue efforts to get infected persons tested and into early care. In addition, treatments will need to become more effective and work for longer periods of time.

Conclusions

Detroit Metropolitan Area residents with HIV infection continue to be predominantly men who have sex with men, black, and ages 25-44 years old at time of diagnosis. When 'presumed heterosexuals' are included in the heterosexual category, the proportion with heterosexually acquired infection is almost equal to the number infected through MSM. The proportions of new diagnoses of HIV infection that are NIRs and 20-24 years old at diagnosis have increased significantly over the past few years while the proportions in IDUs and MSM/IDUs have decreased significantly.

From 1998-2002, approximately 28 percent of persons newly diagnosed with HIV infection were diagnosed with AIDS at the same time, with men being diagnosed with HIV and AIDS concurrently more frequently than women. The proportion of new HIV infections diagnosed at the same time as AIDS decreased significantly in white males but did not change significantly in any other race/sex group.