

APPENDIX A: GLOSSARY OF COMMONLY USED TERMS

Anonymous HIV test: A person tests for HIV without providing his/her name or other identifying information. These cases are not included in the reported number of persons living with HIV in Michigan, as there is no way to de-duplicate cases.

Behaviorally bisexual male: Men who have sex with men (MSM) who also have a history of sexual contact with females. Also referred to as “MSM and Sex with Female”.

Blood recipient: All hemophiliacs, blood transfusion recipients, and organ recipients who received blood products prior to 1985 and all persons documented to have ever received a HIV-infected organ or unit of blood.

Case: A person who is reported to the Michigan Department of Community Health as being HIV-positive.

Confidential HIV test: A person testing for HIV provides his/her name and other identifying information, and this information is reported to the health department. Patient information remains confidential.

Currently living with HIV infection: This population is obtained by calculating the number of persons currently alive and residing in Michigan as of January 1, 2012, using the most recent address information available. It is impossible to track all residence changes among HIV-positive persons; thus, numbers should be viewed as minimum estimates of persons currently living with HIV in Michigan.

eHARS: The enhanced HIV/AIDS Reporting System, a standardized database developed by the CDC for national reporting of HIV.

Epidemiology: The study of the distribution, determinates, and frequency of diseases in humans.

GIS (Geographic Information System): The display and analysis of geographic data in map format.

HAART: Highly Active Antiretroviral Therapy.

Heterosexual contact (HC):

Heterosexual contact w/ female w/ risk (HCFR): Males whose female sexual partners are known to be HIV-infected or at high risk for HIV. These partners meet one of the following criteria: IDU, hemophiliac, HIV infected transfusion recipient, or other HIV infected person of unknown risk (applies to risk transmission categories).

Heterosexual contact w/ female (HCF): Males who have had sex with a female regardless of what is known about the female’s HIV status or behaviors (applies to exposure categories).

Heterosexual contact w/ male (HCM): Females who have had sex with a male regardless of what is known about the male’s HIV status or behaviors (applies to both risk transmission and exposure categories).

The language and presentation of the heterosexual categories recently changed. Formerly, females with heterosexual contact were divided into high-risk heterosexuals (HRH, where male partners’ risk factors were known) and presumed heterosexual contact (PH-Fem, sex with males of unknown risk). This distinction is no longer drawn for females, although males must still have partners with known risks in order to be classified as heterosexual.

HIV (Human Immunodeficiency Virus): Diagnosis with HIV requires both a positive HIV screening and positive supplemental antibody test or detectable quantity on a virologic test. A standard case definition for HIV infection is used by all states for surveillance. Specific information is required in order to count a case of HIV infection, including a method to uniquely identify an individual. Each case is classified in a HIV infection stage (see below). Once a case reaches stage 3 (AIDS), the case is always considered stage 3 for surveillance purposes, even if his/her health improves (MMWR; December 5, 2008 / Vol. 57 / No. RR--10 / Pg. 1 - 12).

HIV infection stages:

Stage 1: A case does not have any of the conditions associated with severe HIV infection (called an AIDS-defining condition) and has ≥ 500 CD4 cells/ μ l.

Stage 2: A case has no AIDS-defining condition, but the level of CD4 cells has fallen to 200-499 cells/ μ l.

Stage 3: Diagnosis with any one of 26 AIDS-defining conditions which are indicative of a severe immune deficiency, or a laboratory test demonstrating severe immune deficiency: CD4 count <200 cells/ μ l or CD4 percent $<14\%$. Previously referred to as AIDS.

Stage unknown: A case of HIV without information available on CD4 levels or AIDS-defining conditions.

Incidence: The number of persons who develop a disease or infection in a certain period of time, usually a year.

Incident case: A person who has been diagnosed with a disease or is newly infected (in this case, with HIV), regardless of his/her vital status (living or deceased).

Injection drug user (IDU): Persons who have a history of injecting non-prescription drugs.

Late diagnosis: A diagnosis of stage 3 HIV infection within 30 days of initial HIV diagnosis (formerly called "concurrent diagnosis"). This is indicative of someone testing late in the course of the infection.

Men who have sex with men (MSM): Males who have a history of sexual contact with other males.

MSM/IDU: MSM who also have a history of injecting non-prescription drugs.

New diagnoses: Number of cases newly diagnosed over a given period of time, usually a year. In HIV surveillance, new diagnoses do not necessarily represent new infections, as newly diagnosed cases may have been infected for many years; thus, only some newly diagnosed cases are also incident cases.

Pediatric case: Children who are 12 years or younger at the time of diagnosis.

Perinatal risk: HIV transmission from mother to child during birth or after birth through breastfeeding.

Prevalence: The total number of persons living with HIV infection at one point in time. The prevalence estimate for all of Michigan as of January 1, 2012 is 20,600. This estimate includes: 1) persons who have stage 3 HIV infection (AIDS); 2) persons diagnosed with HIV infection but who have not progressed to stage 3 infection; 3) an estimate of those who have tested positive for HIV but have not yet been reported; and 4) an estimate of persons with HIV infection who have not yet been diagnosed.

Prevalent case: A person who is currently living with a disease or infection (in this case, HIV).

Primary and secondary syphilis: Infectious stages of syphilis. Primary syphilis presents approximately 10-90 days after the initial exposure and is characterized by a skin lesion (chancre) appearing at the point of contact, which is usually the genitalia but can be anywhere on the body. Secondary syphilis occurs 1-6 months (commonly 6-8 weeks) after the primary infection. The most common presentation is a reddish-pink non-itchy rash on the trunk and extremities. The rash can involve the palms of the hands and the soles of the feet.

Public health surveillance: The ongoing collection, analysis, interpretation, dissemination, and evaluation of population-based information about persons with a condition or risk factor of public health concern.

Rate: The number of cases divided by the number of persons in the general population (both infected and uninfected). The resulting number is standardized by multiplying by a multiple of 10, usually 1,000 or 100,000. This number allows one to compare the impact of disease between groups.

Syphilis: All cases of primary and secondary syphilis and all stages of latent syphilis. Later stages of syphilis are defined as having serologic proof of infection without signs or symptoms of disease. Those diagnosed as having latent stages of syphilis may be infected for just over a year up to decades. These stages of syphilis are not as reflective of recent epidemiology and are significantly less infectious than primary and secondary stages.

Undetermined risk: Males and females with no identified risk for HIV. This includes males whose only documented risk is sex with a female, and their female partner's risk and HIV status is unknown (note: these males meet the definition of heterosexual contact w/ female (HCF) in the exposure categories, but they remain "undetermined" risk in the transmission categories).

APPENDIX B: RURAL AND URBAN COUNTY CLASSIFICATION

Data Source: United States Census Bureau, 2010 Census Urban and Rural Classification and Urban Area Criteria, <http://www.census.gov/geo/www/ua/2010urbanruralclass.html>

Urbanized Area (UA): A statistical geographic entity consisting of a densely settled core created from census tracts or blocks and contiguous qualifying territory that together have a minimum population of at least 50,000 persons.

Core Based Statistical Area (CBSA): A statistical geographic entity defined by the U.S. Office of Management and Budget (OMB), consisting of the county or counties associated with at least one core (urban area) of at least 10,000 population, plus adjacent counties having a high degree of social and economic integration with the core as measured through commuting ties with the counties containing the core. Metropolitan and micropolitan statistical areas are the two types of CBSAs.

Metropolitan Statistical Area (MSA): A core based statistical area (CBSA) associated with at least one urbanized area that has a population of at least 50,000. A metropolitan statistical area comprises a central county or counties containing the urbanized area, plus adjacent outlying counties having a high degree of social and economic integration with the central county as measured by commuting.

Urban county: Any county containing a Urbanized Area (UA) of at least 50,000 people or an area adjacent to an Urbanized Area (UA) that has a substantial commuting interchange with a city of greater than 50,000 people.

Using these US Census Bureau definitions, MDCH classified counties as urban or rural. A county is considered urban if any part of a city or area as explained above is part of that county (i.e., the city of Kalamazoo is in Kalamazoo County) or if a county is adjacent to an Urbanized Area (UA) and has a high degree of social and economic integration with the central county as measured by commuting.

Urban counties grouped by MSA:

- Washtenaw
- Calhoun
- Bay
- Berrien
- Detroit Metro Area (Lapeer, Macomb, Monroe, Oakland, St. Clair, and Wayne counties and the City of Detroit)
- Genesee
- Kent
- Ottawa
- Jackson
- Kalamazoo
- Clinton, Eaton, and Ingham
- Midland
- Muskegon
- Saginaw
- Livingston

Rural counties:

Alcona	Branch	Emmet	Iosco
Alger	Cass	Gladwin	Iron
Allegan	Charlevoix	Gogebic	Isabella
Alpena	Cheboygan	Grand Traverse	Kalkaska
Antrim	Chippewa	Gratiot	Keweenaw
Arenac	Clare	Hillsdale	Lake
Baraga	Crawford	Houghton	Leelanau
Barry	Delta	Huron	Lenawee
Benzie	Dickinson	Ionia	Livingston

Luce
Mackinac
Manistee
Marquette
Mason
Mecosta
Menominee
Missaukee
Montcalm
Montmorency

Newaygo
Oceana
Ogemaw
Ontonagon
Osceola
Oscoda
Otsego
Presque Isle
Roscommon
Sanilac

Schoolcraft
Shiawassee
St Joseph
Tuscola
Van Buren
Wexford