

*A Publication of the Genesee County Health Department*

## HIV & AIDS

The first known case of HIV-1 (Human Immunodeficiency Virus) in a human was identified from a blood sample collected from a man in the Republic of Congo in 1959. Molecular analysis of this blood suggested that the HIV-1 may have risen from a single virus in the late 1940s or early 1950s. HIV has existed in the United States since the 1970s. In 1982 the term “acquired immunodeficiency syndrome” was used to describe the occurrence of opportunistic infections, Kaposi’s sarcoma and *Pneumocystis carinii* pneumonia in previously healthy individuals. Scientists discovered the virus that causes AIDS in 1983, which was later named HIV. It was widely believed that HIV originated in other primates before it was discovered in humans. In 1999, an international team of researchers reported that a subspecies of chimpanzees native to west equatorial Africa had been identified as the source of HIV-1. HIV-1 is the predominant strain of HIV in the developed world and the strain responsible for the global AIDS pandemic. It is believed that HIV-1 was introduced to the human population when hunters came in contact with infected blood. There are three classes of HIV-1: M (main), N (new), and O (outlier). Among M group viruses, which account for >90% of HIV infections worldwide, there are 9 subtypes called clades as well as several recombinant forms. Clade B is the most common subtype in Western Europe and the Americas and differs considerably from clades that are common in Asia and Africa.

HIV is spread by sexual contact with an infected person, by sharing needles and/or syringes with an infected person, or through transfusions of infected blood or blood clotting factors. Babies born to HIV-infected mothers may become infected before or during birth or through breast-feeding after birth. In the health care setting, workers have been infected with HIV after being stuck with needles containing HIV-infected blood or after infected blood gets into a worker’s open cut or mucous membrane. Only one case of patients being infected by an infected health care worker has been documented so far in the United States. This involved HIV transmission from one infected dentist to six patients. HIV does not survive well in the environment making the possibility of environmental transmission remote. Although HIV has been transmitted between family members in the household setting, these transmissions are believed to have resulted from contact between skin or

mucous membranes and infected blood. No other modes of transmission of HIV have been documented to date despite a national sentinel system designed to detect such an occurrence. There is no licensed vaccine available for the prevention of HIV. Currently HIV vaccine trials are underway in many countries in various stages of testing, but the results of these vaccine trials are said to be several years away.

There are an estimated 800,000-900,000 people living with HIV in the U.S. One in four individuals infected with HIV are unaware of their infection. Approximately 40,000 new infections of HIV occur every year in the U.S. Seventy percent of new infections occur in men, and men who have sex with men (MSM) represent the largest proportion of new infections, followed by men and women infected by heterosexual contact and intravenous drug use. More than half of new HIV infections occur among African-Americans although they represent only 13% of the total U.S. population. Hispanics are also disproportionately affected by HIV. The introduction of protease inhibitors (PIs) in the mid 1990s revolutionized the treatment of HIV. Improved treatments have resulted in an increase in the number of people living with HIV/AIDS in the U.S. This growing population highlights the continuing need for HIV prevention and treatment services in the U.S. and abroad.

The link between HIV and STDs (Sexually Transmitted Diseases) has been well documented. Epidemiological studies have demonstrated that individuals who are infected with STDs are at least two to five times more likely than others to acquire HIV if they are exposed to the virus through sexual contact. In addition, if an HIV-infected individual is also infected with another STD, that person is more likely to transmit HIV through sexual contact than HIV-only-infected persons. Intervention studies have shown that effective testing and treatment of STDs can reduce HIV transmission both at the

*The purpose of this quarterly newsletter is to inform the community and health care providers in Genesee County about disease trends in the county. We welcome any comments or questions. Contact:*

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individual and community levels. Treatment of STDs in HIV-infected individuals reduces HIV transmission by decreasing the amount of HIV that is shed and by reducing the frequency of virus shedding. Randomized trials have examined the role of STD treatment in reducing HIV transmission at the community-level. These trials have shown that the existence of continuous interventions to improve access to effective STD treatment services, STD treatment in areas where STD rates are high and the treatment of symptomatic STDs are particularly important in reducing the sexual transmission of HIV infection in communities.

The most predominant groups of Michigan residents with HIV infection continue to be MSM, black, persons aged 25-44 at the time of diagnosis, and/or residents of Southeast Michigan. HIV mortality and the number of new HIV infections have not changed significantly among Michigan residents over the last five years. However, because there are more new HIV diagnoses each year than deaths among HIV-infected persons, the total number of persons living with HIV/AIDS is increasing in Michigan. **As of January 1, 2004, there are an estimated 620 individuals with HIV or AIDS in Genesee County.** This estimate includes all persons living in Genesee County at the time of diagnosis with HIV or AIDS, and those not reported or not yet diagnosed. A total of 172 county residents are reported to be living with AIDS, of these 84% are males and 16% are females. The number of HIV and/or AIDS infections among African-Americans (45% of total residents reported living with HIV or AIDS) is disproportionate compared to their numbers in the population of the county. Two-hundred twenty-five Genesee county residents are reported as living with HIV not AIDS, of these 73% are male and 27% female. Of the 397 county residents living with HIV or AIDS, 170 (55% of all males) were diagnoses among MSMs. The second highest risk among males were among those whose behavioral risk could not be determined (29%) followed by

those reporting injecting drug use and heterosexual sex as their risk category. Among females, 45% of diagnoses were among those whose risk classification was undetermined, 37% of the diagnoses were among heterosexuals, and 15% among injecting drug users.

The Genesee County Health Department's (GCHD) Adult Clinic offers free HIV testing and counseling. Any person aged 13 or older may be seen without parental consent. The current recommendation from the CDC (Centers for Disease Control) is that health care providers offer HIV testing as a routine part of medical care in persons at high risk so that HIV infections are detected early and persons who test positive can quickly enter the medical care system for prevention and treatment services. Health care providers are required by law to report all new HIV infections to the GCHD within 24 hours of diagnosis. The GCHD also performs HIV/AIDS surveillance and disease control activities throughout Genesee County. An outreach team comprised of a Public Health Nursing Coordinator, a Health Educator, a Public Health Nurse and a Secretary works with providers to facilitate reporting of newly diagnosed cases of HIV infections to the GCHD for follow-up. GCHD Adult Clinic outreach staff also provides HIV prevention classes to interested community groups, and offers assistance in partner notification for clients diagnosed with HIV. Free HIV counseling and testing is also offered at participating publicly funded substance abuse treatment providers. More information about these services is available by calling 810-257-3201.

The GCHD Adult Clinic is located at the McCree North Health Center, 115 East Pierson Road, Flint, MI, 48405, Telephone: 600-2400. Clinic hours are Monday, Wednesday, Thursday, and Friday 8:00-11:00am and 1:00-4:00 pm and Tuesday 1:00-4:00pm. For more information about HIV prevention services, please contact Bonnie Childs, RN, Adult Clinic Nursing Supervisor at 810-600-2450.

### Selected Reportable Communicable Diseases in Genesee County

Disease	Week ending 05/01/04	Reported cases to date FY* 2003-04	Same week reported cases to date FY 2002-03	Total reported cases FY 2002-03
Chicken Pox	8	263	160	337
Pertussis	0	4	2	2
Flu-like illness	765	31,196	33,225	37,966
TB-New cases	0	3	9	12
Chlamydia	21	1605	1422	2419
Gonorrhea	22	1135	957	1758
Hepatitis B (Acute)	0	4	7	8
Hepatitis C (Acute)	0	2	8	11
Campylobacter	0	8	11	24
Giardiasis	0	14	13	22
Hepatitis A	0	6	13	16
Salmonellosis	1	13	10	29
Shigellosis	0	2	1	6
Meningitis-Viral	0	42	33	69
Meningitis-Bacterial	0	8	4	4

\*FY – Fiscal Year, October 1-September 30

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The GCHD will be observing National HIV Testing Day on June 27th by providing free HIV testing using Orasure, during the week of June 21st. Clients can come to McCree North during normal STD clinic hours for testing. Testing will also be available by appointment at the GCHD Burton Branch on June 21st between 8 am and 11:30 am and on June 24th between 4 pm and 7:30 pm. Please call 810-600-2400 for more information.