

## Late HIV testing in Wisconsin

*Wendy Schell, MS, Surveillance Coordinator; Neil Hoxie, MS, Epidemiologist, Wisconsin AIDS/HIV Program, Wisconsin Division of Public Health.*

Personal knowledge of one's serostatus for human immunodeficiency virus (HIV) is an important part of HIV prevention and treatment efforts (1). Among the estimated 850,000 - 950,000 persons living with HIV infection in the United States in 2000, approximately one-fourth (180,000 - 280,000) were unaware of their HIV infection (2). It is estimated that 25 percent of persons who are unaware of their infection account for transmission of two-thirds of new HIV cases. In addition, many persons with HIV infection are tested late in the course of infection (3). Nationally among persons diagnosed with HIV in 2001, 39 percent were tested late in the course of infection (i.e., had acquired immunodeficiency syndrome [AIDS] diagnosed within one year of HIV diagnosis) (4). Late testing results in missed opportunities, both for prevention and treatment of HIV infection.

This article characterizes the prevalence of late testing in Wisconsin based on an analysis of all Wisconsin cases of HIV infection (with or without AIDS diagnosed) diagnosed from January 1, 1997 through December 30, 2001 (n=1,523). Cases were analyzed through September 30, 2003 to determine if an AIDS diagnosis occurred within 12 months of the HIV diagnosis.

### **Definition: late tester**

In this report, a "late tester" is defined as any person diagnosed with AIDS within 12 months of diagnosis of an HIV infection.

### **Results**

- During the period January 1, 1997 through December 30, 2001, 1,523 persons were diagnosed with HIV infection in Wisconsin. Of these, 36 percent (551) were late testers.
- Of the 551 late testers, 466 (85 percent) had an AIDS diagnosis within one month of their diagnosis of HIV infection, and eighty-five (15 percent) developed AIDS 2 to 12 months following a diagnosis of HIV infection.

**Select characteristics of Wisconsin HIV cases diagnosed by time interval between diagnosis of HIV infection and AIDS, January 1, 1997 - December 31, 2001 <sup>1</sup>**

	AIDS Diagnosis					
	Greater than 12 Months after diagnosis of HIV infection <sup>2</sup>		Equal to or less than 12 Months after diagnosis of HIV infection		Total	
	No.	(%)	No.	(%)	No.	(%)
<b>Total</b>	<b>972</b>	<b>64%</b>	<b>551</b>	<b>36%</b>	<b>1523</b>	<b>100%</b>
<b>Sex</b>						
Female	264	73%	98	27%	362	100%
Male	708	61%	453	39%	1161	100%
<b>Age at diagnosis (yrs)</b>						
0-14	7	64%	4	36%	11	100%
15-24	159	84%	30	16%	189	100%
25-34	375	69%	165	31%	540	100%
35-44	308	58%	219	42%	527	100%
45+	123	48%	133	52%	256	100%
<b>Race/ethnicity</b>						
White	423	61%	270	39%	693	100%
African American	431	68%	203	32%	634	100%
Hispanic	96	59%	66	41%	162	100%
Asian/Pac. Is.	8	62%	5	38%	13	100%
American Indian	13	65%	7	35%	20	100%
Multi-racial	1	100%	0	0%	1	100%
<b>Exposure category - Female</b>						
Heterosexual contact	141	68%	67	32%	208	100%
Injection drug use	39	75%	13	25%	52	100%
Other <sup>3</sup>	84	82%	18	18%	102	100%
<b>Exposure category - Male</b>						
Heterosexual contact	57	61%	37	39%	94	100%
Injection drug use	93	58%	68	42%	161	100%
Male-to-male sexual contact	396	60%	261	40%	657	100%
Male-to-male sexual contact & injection drug use	43	62%	26	38%	69	100%
Other <sup>3</sup>	119	66%	61	34%	180	100%
<b>MSA category<sup>4</sup></b>						
Correctional system	31	79%	8	21%	39	100%
Dane County MSA	116	61%	73	39%	189	100%
Milwaukee MSA	564	66%	288	34%	852	100%
Non-Metropolitan Counties	80	55%	66	45%	146	100%
Other Metropolitan Counties	180	61%	116	39%	296	100%
Unknown	1	100%	0	0%	1	100%
<b>Status</b>						
Presumed alive	937	67%	457	33%	1394	100%
Dead	35	27%	94	73%	129	100%
<b>Year of first HIV diagnosis</b>						
1997	219	62%	136	38%	355	100%
1998	204	63%	119	37%	323	100%
1999	185	71%	76	29%	261	100%
2000	198	64%	113	36%	311	100%
2001	166	61%	107	39%	273	100%

<sup>1</sup>Cases and deaths reported through 09/30/2003. Data subject to change as more information becomes available.

<sup>2</sup> Includes cases that currently are not classified as AIDS.

<sup>3</sup> "Other" includes cases that have other or unknown exposure.

<sup>4</sup>The Milwaukee MSA includes Milwaukee, Ozaukee, Washington and Waukesha counties. The Dane County MSA includes Dane County only. "Other metropolitan counties" are Kenosha, Racine, Rock, Sheboygan, Brown, Outagamie, Winnebago, Calumet, La Crosse, Marathon, Eau Claire, Chippewa, St. Croix, and Douglas counties. Non-metropolitan counties are all counties not included in other categories.

- Late testers were more likely to be male and older.
- Hispanics (41 percent), Whites (39 percent), Asian/Pacific Islanders (38 percent), and American Indians (35 percent) were more likely than African Americans (32 percent) to be late testers.
- Across risk exposure categories for males, the risk of being a late tester was 42 percent for injection drug user (IDU), 40 percent for male-to-male sexual contact, 39 percent for heterosexual contact, and 38 percent for male-to-male sexual contact and injection drug use.
- For women, heterosexual contact had the highest risk of being late testers (32 percent) compared to injection drug use (25 percent) and other (18 percent).
- There were proportionally more late testers from non-metropolitan areas (45 percent) than larger metropolitan areas (Dane County MSA 39 percent; Other metropolitan counties 39 percent; Milwaukee MSA 34 percent). The lowest percentage of late testers occurred among persons in the corrections system (21 percent).
- There were 129 deaths reported during this period. Of these deaths, 73 percent (94) were among late testers.
- With the exception of 1999, there was little variation among the percent of late testers and year of diagnosis: 38 percent in 1997, 37 percent in 1998, 29 percent in 1999, 36 percent in 2000, and 39 percent in 2001.

### **Discussion**

Over one-third (36 percent) of persons diagnosed with HIV infection progressed to AIDS within 12 months of an HIV infection diagnosis, and most of these were diagnosed within the month of a diagnosis of HIV infection. These cases represent missed opportunities, both for prevention of potential transmission and for care and treatment.

Late testers were identified in all gender, race, age group, exposure and geographic categories and no category was uniquely characteristic of late testers. Differences within the categories of race, exposure risk, and geography are relatively slight and the data are remarkably uniform.

Of all HIV infections reported nationally in 2001, 39 percent progressed to AIDS within 12 months following a diagnosis of HIV infection. A larger proportion of late testers were age 35 years and older, Hispanic, Asians/Pacific Islanders, American Indians/Alaska Natives, IDUs, and persons exposed through heterosexual contact. These national findings are very similar to the Wisconsin data and, as with the Wisconsin data, the differences between groups are small (4).

Reasons for late testing vary. A national study of 7,236 persons newly diagnosed with HIV infection found that most individuals were tested because they had symptoms of an illness (42 percent). Only 10 percent of HIV-infected men and 17 percent of HIV-infected women reported being tested because the test was offered or recommended by a health-care facility or provider (5).

The primary reason persons in Wisconsin either elect or defer testing is unknown. Insight may be gained on completion and analysis of data from the Wisconsin HIV Testing Survey (HITS), a federal project funded by the Centers for Disease Control and Prevention (CDC) for purpose of assessing why persons at high risk for HIV infection elect or defer HIV testing.

The new CDC initiative known as Advancing HIV Prevention: New Strategies for a Changing Epidemic is aimed at reducing barriers to early diagnosis of HIV infection, increasing testing in non-medical settings, and increasing access to quality medical care, treatment, and ongoing prevention services (6). A goal of the initiative is to increase the number of HIV infected individuals diagnosed earlier in their infection. The Wisconsin Department of Health and Family Services is a key partner in this initiative and has been funded to support three pilot projects to enhance testing. The projects include: 1) routinely offering testing to patients in medical facilities in high prevalence areas, 2) routinely offering testing during intake in jails and short term care facilities, and 3) offering rapid testing for partners as part of Partner Counseling and Referral Services. (See page 20 for further description of these pilot projects.)

## References

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