

Michael R. Bloomberg Mayor

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# HIV EPIDEMIOLOGY PROGRAM 4TH QUARTER REPORT

October 2005

### The New York City Department of Health and Mental Hygiene

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**Publication schedule:** This report reflects events occurring through December 31, 2004, and reported by September 30, 2005. It represents diagnoses made through nine months prior to the publication date because case reporting is 85% complete by that time. Because cases continue to be reported for many months, the final numbers can be expected to be higher.

To receive this report via e-mail, send an e-mail request to: hivreport@health.nyc.gov

For electronic versions of this and other HIV-related reports, visit: http://www.nyc.gov/html/doh/html/dires/hivepi.shtml

#### HIV Epidemiology Program

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### 2004 HIGHLIGHTS

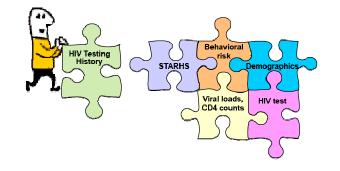
- □ In 2004, 3,653 persons were newly diagnosed with HIV.
  - Between 2003 and 2004, new HIV diagnoses declined by 433 (11%), continuing the annual decline in new diagnoses since HIV reporting began in 2000.
  - Among women the largest decline was in Hispanics (25%); among men the largest decline was in whites (14%).
  - New HIV diagnoses declined in women of all ages except 50 – 59, whereas in men the decline was limited to those 30 and older.
  - Increases in new HIV diagnoses in some transmission categories may be due to better ascertainment of risk between 2003 and 2004, and not a true increase in HIV diagnoses.
- In 2004, 1,038 persons were diagnosed with AIDS within 31 days of HIV diagnosis (concurrent HIV/AIDS), representing 28.4% of all new HIV diagnoses compared with 25.2% in 2003.
- In 2004, 4,330 persons were newly diagnosed with AIDS, a decline of 616 (12%) from 2003. AIDS diagnoses decreased in both genders and among blacks, Hispanics and whites; the largest decrease (20%) in new AIDS diagnoses was among whites.
- At the end of 2004, 94,495 people were known to be living with HIV/AIDS in NYC. Many more persons living with HIV do not know they are infected because they have never been tested.

# Upcoming changes to the New York State Provider Report Form (PRF)

In 2006, the New York State Department of Health will issue a revised Provider Report Form (PRF). The revised PRF contains a new section on the patient's HIV testing history, including such questions as 'date of last negative HIV test' and 'reason for getting tested for HIV.'

# Why is HIV testing history important?

Testing history is needed in order to calculate HIV incidence. As of June 2005 all diagnostic HIV specimens are tested by the health department using STARHS (Serologic Testing Algorithm for Recent HIV Seroconversion), an assay that can distinguish between recent and longstanding HIV infections. The testing history data from the revised PRF, combined with STARHS results, will allow us to calculate the incidence of new HIV infections. Up until now, we have only been able to monitor new HIV *diagnoses*, many of which represent infections that occurred a decade or more ago. HIV incidence data will allow us to better monitor current HIV transmission, target prevention resources and evaluate prevention activities.



## How will I get the new PRF?

At the beginning of 2006, the NYC DOHMH will be distributing the new PRF and providing information about how to use it. Training sessions will be scheduled to familiarize providers with the new form. Be sure to check our website for more information.

http://www.nyc.gov/html/doh/html/dires/hivepi.shtml

# Reported HIV/AIDS diagnoses and deaths occurring January 1, 2004 through December 31, 2004, and reported persons living with HIV/AIDS as of December 31, 2004<sup>1</sup>, in New York City

	HIV diagnoses 1/1/2004–12/31/2004 <sup>1</sup>						AIDS diagnoses 1/1/2004–12/31/2004 <sup>3</sup>		PLWHA as of 12/31/2004		Deaths 1/1/2004–12/31/2004	
	Total		Without AIDS		Concurrent with AIDS diagnosis <sup>2</sup>							
	N	%	N	%	N	%	N	%	Ν	%	N	%
Total	3,653	100.0	2,615	71.6	1,038	28.4	4,330	100.0	94,495	100.0	2,189	100.0
Sex												
Male	2,502	68.5	1,779	68.0	723	69.7	2,962	68.4	65,626	69.4	1,459	66.7
Female	1,151	31.5	836	32.0	315	30.3	1,368	31.6	28,683	30.4	730	33.3
Unknown	0	0.0	0	0.0	0	0.0	0	0.0	186	0.2	0	0.0
Race/Ethnicity												
Black	1,955	53.5	1,379	52.7	576	55.5	2,187	50.5	41,940	44.4	1,181	54.0
Hispanic	1,046	28.6	738	28.2	308	29.7	1,353	31.2	30,058	31.8	666	30.4
White	542	14.8	418	16.0	124	11.9	686	15.8	20,197	21.4	321	14.7
Asian/Pacific Islander	82	2.2	58	2.2	24	2.3	70	1.6	1,067	1.1	10	0.5
Native American	6	0.2	*	*	*	2.0	*	*	71	0.1	*	*
Other/unknown	22	0.6	17	0.7	*	*	30	0.7	1,162	1.2	8	0.4
Age group (years) <sup>4</sup>				••••					.,		-	••••
0-12	20	0.5	16	0.6	*	*	6	0.1	1,115	1.2	*	*
13-19	111	3.0	105	4.0	6	0.6	39	0.9	1,403	1.5	10	0.5
20-29	762	20.9	631	24.1	131	12.6	457	10.6	5,409	5.7	38	1.7
30-39	1,172	32.1	870	33.3	302	29.1	1,312	30.3	21,560	22.8	336	15.3
40-49	1,046	28.6	677	25.9	369	35.5	1,576	36.4	37,481	39.7	846	38.6
50-59	408	11.2	242	9.3	166	16.0	734	17.0	20,913	22.1	690	31.5
60+	134	3.7	74	2.8	60	5.8	206	4.8	6,614	7.0	267	12.2
	104	0.7	74	2.0	00	5.0	200	4.0	0,014	7.0	207	12.2
Borough of residence	961	00.0	742	28.4	219	04.4	4 050	20.0	20,402	24.0	586	26.8
Manhattan		26.3				21.1	1,250	28.9	29,493	31.2		
Brooklyn	990	27.1	681	26.0	309	29.8	1,135	26.2	23,345	24.7	656	30.0
Bronx	898	24.6	632	24.2	266	25.6	1,042	24.1	20,628	21.8	595	27.2
Queens	547	15.0	359	13.7	188	18.1	608	14.0	12,778	13.5	229	10.5
Staten Island	73	2.0	51	2.0	22	2.1	72	1.7	1,706	1.8	42	1.9
Unknown/outside NYC	184	5.0	150	5.7	34	3.3	223	5.2	6,545	6.9	81	3.7
Transmission risk												
Men who have sex with men	1,295	35.5	1,026	39.2	269	25.9	1,136	26.2	26,311	27.8	272	12.4
Injection drug use history	340	9.3	249	9.5	91	8.8	759	17.5	22,111	23.4	914	41.8
Heterosexual <sup>5</sup>	797	21.8	525	20.1	272	26.2	893	20.6	17,479	18.5	393	18.0
Perinatal	20	0.5	16	0.6	*	*	16	0.4	2,436	2.6	14	0.6
Other	11	0.3	7	0.3	*	*	24	0.6	534	0.6	18	0.8
Unknown/under investigation <sup>6</sup>	1,190	32.6	792	30.3	398	38.3	1,502	34.7	25,624	27.1	578	26.4
Clinical status as of 12/31/2004												
HIV (non-AIDS)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	33,688	35.7	244	11.1
AIDS	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	60,807	64.3	1,945	88.9

PLWHA=Persons living with HIV/AIDS. Cells representing 1-5 person(s) are marked with an asterisk (\*).

<sup>1</sup> For events reported by September 30, 2005.

<sup>2</sup> HIV diagnosed concurrently with AIDS (within 31 days of HIV diagnosis).

<sup>3</sup> AIDS was diagnosed in 2004 and includes concurrent HIV/AIDS diagnosis.

<sup>4</sup> For HIV and AIDS diagnoses, age at diagnosis; for PLWHA, age as of December 31, 2004; and for deaths, age at death.

<sup>5</sup> Includes persons with CDC-defined heterosexual risk in addition to persons with probable heterosexual transmission defined as a history of: a) sex with an HIV-infected person of the opposite sex, an injection drug user, a bisexual male, or a person with hemophilia/coagulation disorder, b) heterosexual prostitution, c) sex with a prostitute of the opposite sex, d) multiple sex partners of the opposite sex, e) sexually transmitted disease, f) crack/cocaine use, or g) immigration from a country where heterosexual transmission of HIV predominates.

<sup>6</sup> Includes individuals with no risk information reported by the provider and for whom an expanded investigation has not been completed.

### Which HIV-related events are reportable in New York State, and who is required to report?

In 1998, New York State expanded AIDS case reporting to include HIV (Chapter 163 of the Laws of 1998, PHL Article 21). The law took effect on **June 1, 2000** and was amended on **June 1, 2005**. All diagnostic and clinical providers (doctors, nurses, physician assistants, and all others diagnosing HIV or providing care to HIV-infected persons) and laboratories are required by law to report the following events:

Events reportable by providers on the required New York State Provider Report Form (PRF)

- Diagnoses of HIV infection
- Diagnoses of HIV illness in a previously unreported individual (i.e., HIV illness not meeting the AIDS case definition)
- Diagnoses of AIDS-defining conditions

Events reportable by laboratories

- All positive Western blot test results
- All viral load test results (detectable and undetectable)
- All CD4 test results
- All viral nucleotide sequence results

For assistance in reporting a case of HIV/AIDS, to receive Provider Report Forms, or to obtain more information, please call (212) 442-3388



TALK TO US CNAP (212) 693-1419

New York State law also requires that PRFs contain names of sexual or needle-sharing partners of the infected person known to medical providers or those whom the infected person wishes to have notified of their possible exposures. Providers can utilize and/or refer HIV-infected persons to the NYC DOHMH Contact Notification Assistance Program (CNAP) at (212) 693-1419 for assistance in carrying out partner notification. For more information about the New York State HIV reporting and partner notification law and CNAP, visit: www.health.state.ny.us/nysdoh/hivaids/hivpartner/intro.htm

#### NYC DOHMH HIV Epidemiology Program Quarterly Report

### Reported HIV/AIDS diagnoses and deaths occurring January 1, 2004 through December 31, 2004, and reported persons living with HIV/AIDS as of December 31, 2004<sup>1</sup>, by sex, in New York City

	H	IIV diagno	oses durin		4-12/31/20		AIDS d	AIDS diagnoses 1/1/2004–12/31/2004 <sup>3</sup>		PLWHA as of 12/31/2004		Deaths 1/1/2004–12/31/2004	
	Total		Without AIDS		Concurrent with AIDS diagnosis <sup>2</sup>								
Total (Male and Female)	N 3,653	% 100.0	N 2,615	% 71.6	N 1,038	% 28.4	N 4,330	% 100.0	N 94,309	% 100.0	N 2,189	% 100.0	
Female	1,151	100.0	836	72.6	315	27.4	1,368	100.0	28,683	100.0	730	100.0	
Race/Ethnicity							·		20,000				
Black	779	67.7	569	68.1	210	66.7	863	63.1	16,464	57.4	452	61.9	
Hispanic White	272 62	23.6 5.4	187 49	22.4 5.9	85 13	27.0 4.1	388 93	28.4 6.8	9,068 2,669	31.6 9.3	209 67	28.6 9.2	
Asian/Pacific Islander	23	2.0	18	2.2	*	+.1	33 15	1.1	2,009	9.3 0.7	*	9.2 *	
Native American	*	*	*	*	0	0.0	*	*	23	0.1	0	0.0	
Other/unknown	11	1.0	9	1.1	*	*	8	0.6	244	0.9	*	*	
Age group (years) <sup>4</sup> 0-12	*	*	*	*	*	*	*	*	584	2.0	*	*	
13-19	36	3.1	35	4.2	*	*	16	1.2	698	2.0	*	*	
20-29	218	18.9	177	21.2	41	13.0	150	11.0	2,145	7.5	21	2.9	
30-39	359	31.2	268	32.1	91	28.9	401	29.3	7,311	25.5	136	18.6	
40-49 50-59	335 152	29.1 13.2	229 98	27.4 11.7	106 54	33.7 17.1	522 213	38.2 15.6	11,231 5,202	39.2 18.1	311 193	42.6 26.4	
50-59 60+	46	4.0	90 25	3.0	54 21	6.7	64	4.7	5,202 1,512	5.3	63	20.4 8.6	
Borough of residence			20	5.0		5.1	01		.,	0.0	00	5.0	
Manhattan	204	17.7	160	19.1	44	14.0	296	21.6	5,908	20.6	168	23.0	
Brooklyn	371 356	32.2 30.9	257	30.7	114 101	36.2 32.1	404 419	29.5 30.6	8,756	30.5	245	33.6	
Bronx Queens	356 159	30.9 13.8	255 116	30.5 13.9	43	32.1 13.7	419 170	30.6 12.4	8,355 3,903	29.1 13.6	219 66	30.0 9.0	
Staten Island	28	2.4	22	2.6	6	1.9	28	2.0	648	2.3	13	1.8	
Unknown/outside NYC	33	2.9	26	3.1	7	2.2	51	3.7	1,113	3.9	19	2.6	
Transmission risk							005	10.1	0.004	00.4	000		
Injection drug use history Heterosexual <sup>5</sup>	113 456	9.8 39.6	93 327	11.1 39.1	20 129	6.3 41.0	225 497	16.4 36.3	6,334 10,544	22.1 36.8	283 207	38.8 28.4	
Perinatal	450	39.0	*	*	129	41.0	437	0.5	1,246	4.3	207	0.8	
Other	8	0.7	*	*	*	*	15	1.1	262	0.9	9	1.2	
Unknown/under investigation <sup>6</sup>	569	49.4	408	48.8	161	51.1	624	45.6	10,297	35.9	225	30.8	
Clinical status as of 12/31/2004 HIV (non-AIDS)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	11,225	39.1	91	12.5	
AIDS	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	17,458	60.9	639	87.5	
Male	2,502	100.0	1,779	71.1	723	28.9	2,962	100.0	65,626	100.0	1,459	100.0	
Race/Ethnicity													
Black	1,176	47.0 30.9	810	45.5	366 223	50.6 30.8	1,324	44.7 32.6	25,475 20,990	38.8	729 457	50.0	
Hispanic White	774 480	30.9 19.2	551 369	31.0 20.7	223 111	30.8 15.4	965 593	20.0	20,990	32.0 26.7	457 254	31.3 17.4	
Asian/Pacific Islander	59	2.4	40	2.2	19	2.6	55	1.9	852	1.3	9	0.6	
Native American	*	*	*	*	*	*	*	*	48	0.1	*	*	
Other/unknown	11	0.4	8	0.4	*	*	22	0.7	733	1.1	7	0.5	
Age group (years) <sup>₄</sup> 0-12	15	0.6	12	0.7	*	*	*	*	531	0.8	*	*	
13-19	75	3.0	70	3.9	*	*	23	0.8	704	1.1	*	*	
20-29	544	21.7	454	25.5	90	12.4	307	10.4	3,259	5.0	17	1.2	
30-39	813	32.5	602	33.8	211	29.2	911	30.8	14,209	21.7	200	13.7	
40-49 50-59	711 256	28.4 10.2	448 144	25.2 8.1	263 112	36.4 15.5	1,054 521	35.6 17.6	26,165 15,669	39.9 23.9	535 497	36.7 34.1	
60+	230 88	3.5	49	2.8	39	5.4	142	4.8	5,089	7.8	204	14.0	
Borough of residence									-,				
Manhattan	757	30.3	582	32.7	175	24.2	954	32.2	23,580	35.9	418	28.6	
Brooklyn Bronx	619 542	24.7 21.7	424 377	23.8	195 165	27.0 22.8	731 623	24.7 21.0	14,410	22.0 18.7	411 376	28.2 25.8	
Queens	388	21.7 15.5	243	21.2 13.7	145	22.0	438	14.8	12,272 8,875	13.5	163	25.0 11.2	
Staten Island	45	1.8	29	1.6	16	2.2	44	1.5	1,057	1.6	29	2.0	
Unknown/outside NYC	151	6.0	124	7.0	27	3.7	172	5.8	5,432	8.3	62	4.2	
Transmission risk	1 205	E4 0	1 000	E7 7	200	27.0	1 400	20.4	06.044	40.4	070	10.0	
Men who have sex with men Injection drug use history	1,295 227	51.8 9.1	1,026 156	57.7 8.8	269 71	37.2 9.8	1,136 534	38.4 18.0	26,311 15,777	40.1 24.0	272 631	18.6 43.2	
Heterosexual <sup>5</sup>	341	13.6	198	11.1	143	19.8	396	13.4	6,935	10.6	186	12.7	
Perinatal	15	0.6	12	0.7	*	*	9	0.3	1,190	1.8	8	0.5	
Other	*	*	*	*	0	0.0	9	0.3	272	0.4	9	0.6	
Unknown/under investigation <sup>b</sup> Clinical status as of 12/31/2004	621	24.8	384	21.6	237	32.8	878	29.6	15,141	23.1	353	24.2	
HIV (non-AIDS)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	22,277	33.9	153	10.5	
AIDS	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	43,349	66.1	1,306	89.5	
									•				

PLWHA=Persons living with HIV/AIDS. Cells representing 1-5 person(s) are marked with an asterisk (\*).

For events reported by September 30, 2005. HIV diagnosed concurrently with AIDS (within 31 days of HIV diagnosis). AIDS was diagnosed in 2004 and includes concurrent HIV/AIDS diagnosis.

For HIV and AIDS diagnoses, age at diagnosis; for PLWHA, age as of December 31, 2004; and for deaths, age at death.

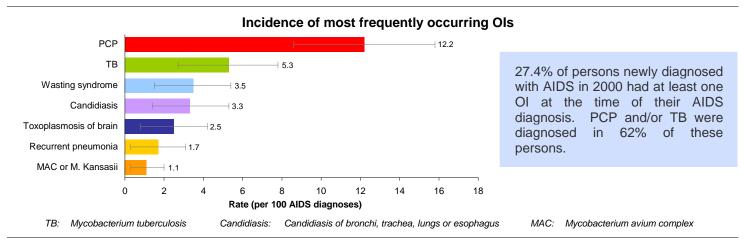
Includes persons with CDC-defined heterosexual risk in addition to persons with probable heterosexual transmission defined as a history of: a) sex with an HIV-infected person of the opposite sex, an injection drug user, a bisexual male, or a person with hemophilia/coagulation disorder, b) heterosexual prostitution, c) sex with a prostitute of the opposite sex, d) multiple sex partners of the opposite sex, e) sexually transmitted disease, f) crack/cocaine use, or g) immigration from a country where heterosexual transmission of HIV predominates. Includes individuals with no risk information reported by the provider and for whom an expanded investigation has not been completed.

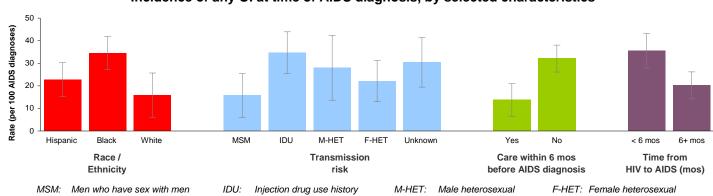
# **Opportunistic Illnesses in Persons Diagnosed with AIDS in New York City**

In the early days of the AIDS epidemic in the United States, opportunistic illnesses (OIs) such as *Pneumocystis jiroveci (carinii)* pneumonia (PCP) accounted for many deaths among persons with AIDS. Morbidity and mortality declined significantly with the availability of prophylaxis for the most common OIs and the introduction of highly active antiretroviral therapy (HAART). However, the AIDS Progression Project estimates that in 2000, 1 in 4 persons – over 1,200 people – had an OI at the time of their AIDS diagnosis.

### What is the AIDS Progression Project?

The AIDS Progression Project is an expanded surveillance project designed by the Centers for Disease Control and Prevention (CDC) to identify factors associated with progression from HIV to AIDS in the era of HAART. AIDS is defined by a CD4 count <200 cells/ $\mu$ L or <14% total lymphocytes or the presence of an AIDS-defining OI. In NYC, we reviewed medical records for a sample of 8% of people newly diagnosed with AIDS in 2000 (N = 450). The sample data were used to estimate the incidence of OIs among all AIDS diagnoses in 2000.





## Incidence of any OI at time of AIDS diagnosis, by selected characteristics

- The rate of OIs was significantly higher among blacks than whites (35 versus 16 per 100 AIDS diagnoses) and among persons in the IDU transmission category than the MSM category (35 versus 16 per 100 AIDS diagnoses).
- Persons not in care in the 6 months before their AIDS diagnosis were twice as likely to have an OI as were persons who were in care.
- Persons diagnosed with HIV within 6 months of their AIDS diagnosis were twice as likely to have an OI as were persons diagnosed with HIV more than 6 months before developing AIDS.

### **Other Notable Findings**

- 9.3% of persons diagnosed with an OI at the time of their AIDS diagnosis died within one month, compared with <1% of persons with no OI.
- Persons with an OI at the time of their AIDS diagnosis were almost 3 times more likely to die within three years of diagnosis than persons who had only a CD4 count < 200 cells/µL or <14% total lymphocytes as their AIDS-defining event (31% versus 11%).

### **Opportunistic Illnesses Are Preventable**

The prevention of OIs depends on:

- Early detection of HIV infection.
- Regular visits to a health care provider, including monitoring of immune status.
- Prophylaxis as recommended (see link below).
- Adherence to an antiretroviral therapy regimen when prescribed.

The "Guidelines for Preventing Opportunistic Infections Among HIV-Infected Persons – 2002" can be found by following this link: http://www.cdc.gov/mmwr/pdf/rr/rr5108.pdf