<table>
<thead>
<tr>
<th>Slide number</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.</td>
<td>HIV/AIDS: THE BASICS (1)</td>
</tr>
<tr>
<td>4.</td>
<td>HIV/AIDS: THE BASICS (2)</td>
</tr>
<tr>
<td>5.</td>
<td>GENERAL EPIDEMIOLOGY: PREVALENCE</td>
</tr>
<tr>
<td>6.</td>
<td>GENERAL EPIDEMIOLOGY: INCIDENCE AND NEW DIAGNOSES</td>
</tr>
<tr>
<td>7.</td>
<td>GENERAL EPIDEMIOLOGY: INCIDENCE VS. PREVALENCE</td>
</tr>
<tr>
<td>8.</td>
<td>HIV/AIDS MORTALITY</td>
</tr>
<tr>
<td>9.</td>
<td>WHAT IS SURVEILLANCE?</td>
</tr>
<tr>
<td>10.</td>
<td>EVOLUTION OF HIV/AIDS SURVEILLANCE IN NYC</td>
</tr>
<tr>
<td>11.</td>
<td>HIV SURVEILLANCE IN NYC</td>
</tr>
<tr>
<td>12.</td>
<td>EARLY HIV/AIDS SURVEILLANCE IN NYC</td>
</tr>
<tr>
<td>13.</td>
<td>HOW DO WE COLLECT HIV SURVEILLANCE DATA IN NYC?</td>
</tr>
<tr>
<td>14.</td>
<td>EVENTS REPORTABLE BY NYC LABORATORIES</td>
</tr>
<tr>
<td>15.</td>
<td>EVENTS REPORTABLE BY NYC PROVIDERS</td>
</tr>
<tr>
<td>16.</td>
<td>FIELD SURVEILLANCE</td>
</tr>
<tr>
<td>17.</td>
<td>INTEGRATION OF HIV SURVEILLANCE DATA SOURCES</td>
</tr>
<tr>
<td>18.</td>
<td>AUTHORIZATION FOR SURVEILLANCE</td>
</tr>
<tr>
<td>19.</td>
<td>CONFIDENTIALITY: NEW YORK STATE LAW</td>
</tr>
<tr>
<td>20.</td>
<td>CONFIDENTIALITY: NEW YORK CITY LAW</td>
</tr>
<tr>
<td>21.</td>
<td>CONFIDENTIALITY: FEDERAL LAW</td>
</tr>
<tr>
<td>22.</td>
<td>CONFIDENTIALITY IN THE HIV EPIDEMIOLOGY AND FIELD SERVICES PROGRAM</td>
</tr>
<tr>
<td>23.</td>
<td>HOW TO FIND OUR DATA</td>
</tr>
</tbody>
</table>
Acquired Immunodeficiency Syndrome (AIDS) is caused by the Human Immunodeficiency Virus (HIV)

HIV is spread primarily through sexual contact with an infected person or by sharing needles and/or syringes with someone who is infected.
• Laboratory testing can confirm the presence of HIV or antibodies to HIV in a person’s blood
• Persons who are infected with HIV are often asymptomatic, possibly for 10 years or longer
• The Centers for Disease Control and Prevention (CDC) define AIDS in an HIV-infected person as:
  • CD4 cell count is <200 cells per μL
  • CD4 cell count is <14% of total lymphocytes, if there is no corresponding CD4 cell count ≥200 cells per μL
  • Physician diagnosis of an AIDS-defining opportunistic illness (OI)
• **Prevalence**: the proportion of a population known to be living with HIV or AIDS, regardless of when they acquired their infection or were diagnosed
  – Prevalence is typically expressed as a percentage of the population at a point in time

• **PLWHA**: people living with HIV and/or AIDS

Prevalence provides a snapshot of the burden of illness or infection in a given population.
• **HIV incidence rate**: number of new HIV *infections* per time period of interest (e.g., month, year).

• **New HIV diagnosis rate**: number of new HIV *diagnoses* per time period of interest. A new diagnosis does not necessarily represent a new infection – a person may be infected with HIV many years before being diagnosed.

Accurately measuring HIV incidence can help us understand how HIV is spreading now and how to more effectively focus prevention efforts.
Prevalence = the total number of living cases of HIV during a specified period in a given population.

Incidence = the number of new cases of HIV in a specified time period in a defined population.

HIV/AIDS MORTALITY

• HIV-related causes:
  – Opportunistic illnesses

• Non-HIV-related causes:
  – Major cardiovascular disease
  – Non-AIDS-defining cancers
  – Accidents
  – Substance abuse
  – Other natural causes

• **Public Health Surveillance** is the ongoing, systematic collection, analysis, and interpretation of health-related data essential to the planning, implementation, and evaluation of public health practice, closely integrated with the timely dissemination of these data to those responsible for prevention and control.

• **Epidemiology** is the study of the distribution and determinants of health related states or events in specified populations, and the application of this study to the control of health problems.
AIDS case reporting mandated in 1983.

AIDS case definition expanded to include additional OI’s and CD4<200 in 1993.

AIDS reporting expanded to include HIV cases in 1998.

HIV surveillance expanded to include incidence and resistance testing in 2000.

HIV reporting and partner services law implemented in 2005.

Amended NYS HIV law: routine offer of HIV test, streamlined consenting; limited data sharing in 2010.

Amended NYS HIV law: oral notification of test; expanded data sharing in 2014.
HIV SURVEILLANCE IN NYC

- **1981**: MMWR reports PCP and KS from Los Angeles and NYC; AIDS surveillance begins
- **1983**: New York State mandates named AIDS case reporting through an emergency amendment to section 24.1 of the state sanitary code
- **1998**: New York State mandates named HIV reporting through Public Health Law Article 21 Title III
- **June 1, 2000**: New York State implements reporting of HIV, detectable viral loads, and CD4<500
- **June 1, 2005**: New York State issues emergency regulations mandating reporting of all viral load and CD4 values
- **September 1, 2010**: New York State mandates the routine offer of HIV testing to all persons ages 13 to 64 receiving hospital or primary care services through Public Health Law 2010 Chapter 308
- **2013**: New York State expands laboratory test reporting requirements to include tests conducted as part of the Multi-Test Algorithm
- **2014**: New York State offers HIV testing with oral consent; limited surveillance data can be shared between health departments and health care providers
### New York Surveillance Figures 4-28-82

#### Men:

<table>
<thead>
<tr>
<th>Disease</th>
<th>First Diag (Mar. fig.)</th>
<th>Total Diag (Mar. fig.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>KS</td>
<td>82 (74)</td>
<td>87 (79)</td>
</tr>
<tr>
<td>PCP</td>
<td>53 (47)</td>
<td>70 (62)</td>
</tr>
<tr>
<td>Other OI*</td>
<td>18 (16)</td>
<td>44 (39)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>153 (137)</strong></td>
<td></td>
</tr>
</tbody>
</table>

#### Women:

- PCP alone: 2
- PCP + other OI: 3
- Other OI: 1
- **Total**: 6

---

*OI is Opportunistic Infection.

Total cases NYC = 159

(Note: Total reported to CDC = 323)
HOW DO WE COLLECT HIV SURVEILLANCE DATA IN NYC?

- Electronic reporting of laboratory tests
- Direct reports by physicians (via the Provider Report Form, or PRF)
- Active field surveillance
- Matching with registries
- Interstate de-duplication activities
- Studies
• As of June 1, 2005:
  – All positive Western Blot results
  – All viral load results, both detectable and undetectable
  – All CD4 test results
  – All viral nucleoside sequence results

• As of late 2013:
  – Tests conducted under the multi-test algorithm
  – Screening EIA (positive only), HIV 1/2 differentiation assay (positive and negative), qualitative RNA test (positive and negative)
EVENTS REPORTABLE BY NYC PROVIDERS

- **New diagnosis of HIV** (acute HIV infection or first report of an HIV antibody positive test result)
- **New diagnosis of AIDS** (CD4<200 or opportunistic infection)
- Patient with previously diagnosed HIV or AIDS during their first visit to a provider

Providers are required by New York State Law to report cases on the New York State Provider Report Form (PRF) within 14 days of an HIV/AIDS-related event.
Routine collection and investigation of HIV data from more than 3,500 NYC facilities, including 75 hospitals, 590 free-standing clinics and 2,680 private medical practices

Abstraction and collection methods include:
- reviewing medical records
- interviewing providers and patients
- reviewing administrative databases
- actively seeking new cases within hospitals and clinics and through private physicians

Field staff also conduct investigations necessary to complete, verify, or correct data on PLWHA in NYC
INTEGRATION OF HIV/AIDS SURVEILLANCE DATA SOURCES

Active Surveillance

Field Investigation Forms

Laboratory data (LABNYC)

Registry Linkage (VS deaths, NDI, STD, TB)

Enhanced Perinatal Surveillance

e-SHARE

eDRI-Maven (Patient lookup)

Provider Reports (PRF)

Field Services Unit (FSU)

Routine Interstate De-duplication (RIDR)

Other databases (HASA, HOPWA, STDEMR, HEP-C)

New York City HIV/AIDS Registry (eHARS)

Monthly transfer via SAMS and HIN

CDC-eHARS (National)

NYS-eHARS (New York State)

SAMS = Secure access management services (CDC)
HIN = Health information network (NYS)
• Named reporting of HIV and AIDS by diagnostic providers is required and codified in:
  – New York State Sanitary Code Section 24.1 and Article 21, Title III
  – New York City Health Code, Section 11.05
• The NYC DOHMH is authorized by the New York State Department of Health to conduct HIV/AIDS surveillance in NYC
• New York State Public Health Law Article 27F, Section 2782, protects confidential HIV-related information and defines the limits of disclosure

• Section 2783 provides for civil penalties for violation of 2782 in the case of willful disclosure of protected information
• New York City Public Health Code Section 11.05 protects confidential HIV-related information and provides penalties for disclosure.
• The Health Insurance Portability and Accountability Act (HIPAA) defines all information contained on a medical record as protected health information.

• Informed consent required for any access to PHI other than by a person providing direct clinical care or conducting legally mandated surveillance.
All of the laws just mentioned, PLUS:

- Confidentiality pledge
- Physical security of office
- Electronic security of data and documents
- Presentation of data in the aggregate, never by name or small groups
HOW TO FIND OUR DATA

• Our program publishes annual surveillance reports and slide sets, as well as special supplemental reports during the year.

• Tables presenting annual data by gender, race, age, transmission category, borough and UHF neighborhood are also available: http://www1.nyc.gov/site/doh/data/data-sets/hiv-aids-annual-surveillance-statistics.page.

• Reports and tables are posted on the NYC DOHMH website: http://www1.nyc.gov/site/doh/data/data-sets/aids-hiv-epidemiology-and-field-services.page

• To receive an electronic copy of a report, email us at hivreport@health.nyc.gov.

Thanks to >150 members of the HIV Epidemiology and Field Services Program staff for these data.