**New diagnoses**

**DEFINITION AND COVARIATES**

Newly diagnosed HIV infections are reported to the HIV surveillance system from providers and HIV testing laboratories. Covariates routinely collected from persons with HIV include age at diagnosis, sex, race/ethnicity, transmission risk. HIV stage at diagnosis is determined by CD4 count, if available.

**TRENDS IN ANNUAL DIAGNOSES**

- The number of new diagnoses significantly decreased from 2009-2013, in each city except Chicago.
- For infections staged at diagnoses, the proportion at late stage significantly decreased in Chicago, Houston, and Philadelphia.
- In men, the overall number of diagnoses is decreasing the proportion of new diagnoses with MSM acquisition risk increased in all cities.

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**Linkage to care**

**DEFINITIONS AND COVARIATES**

Linkage to care within three months of an HIV diagnosis was defined by a lab test (either CD4 or VL) in the HIV surveillance system within three months of the diagnosis.

In these five jurisdictions, almost all HIV related laboratory test results are currently reported electronically to the Department of Health and linked to existing cases by name-based reporting.

**TRENDS IN LINKAGE TO CARE**

- The proportion of persons with HIV linked to care within 3 months increased by 2.4% (95%CI 1.6%-3.1%) per year between 2009 and 2013.
- Increases in proportion linked to care were not uniformly realized by age at diagnosis.
  - Bronx had the highest and most consistent linkage success in all ages except over 55 years old.
  - In the youngest age group (13-24 years old) significant increases occurred in all cities, except Bronx which remained high in all years.
- While improving, high linkage to care is needed to reach the UNAIDS goal of 90% of diagnosed persons on ART.

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**Viral Suppression**

**DEFINITIONS AND COVARIATES**

HIV viral suppression was assessed in HIV infected patients currently in care. Patients were considered currently in care if there were HIV related lab tests (VL and/or CD4 counts) in the surveillance system in 2 of the past 5 calendar quarters.

Patients were considered virally suppressed if they had a viral load assessed in the last 6 months with the most recent VL < 400 copies/mL.

**TRENDS IN NUMBER IN CARE AND VIRAL SUPPRESSION**

- The number of persons in care increased steadily every year during a period when new diagnoses were decreasing.
- Among HIV-infected persons in care, the proportion virally suppressed increased on average by 2.9% (95%CI 2.56-3.22).
- Gains in viral suppression were realized in all age groups, but the proportions were markedly lower in younger age groups in all cities.
- Viral load suppression in persons in care is now approaching 90%, likely as a result of implementation of the 2012 recommendation for universal treatment.