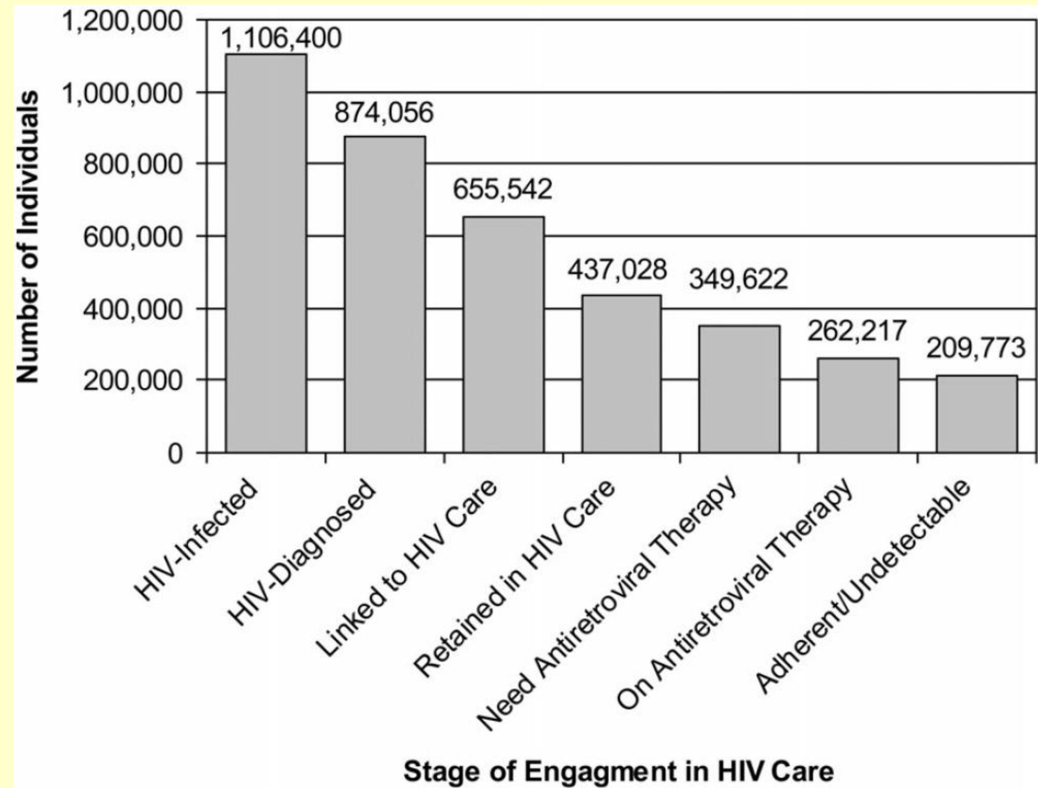
The HIV care continuum for housing program clients and persons living with HIV/AIDS overall, New York City, 2013

Ellen W. Wiewel, MHS

Abstract 280; Late-Breaker Oral Abstracts Session 2: Large-Scale Programs to Enhance Individual and Public Health Outcomes, Tuesday, June 30, 2015, 10:30AM

Background: care continuum

- Tool to monitor population-level successes and gaps in HIV-related medical care
- Presented as a continuum from infection to viral suppression



Source: Gardner *CID* 2011

Background: poverty, housing, and HIV

- Low income associated with worse health outcomes, including mortality
- Unstable housing and homelessness are markers of low income and mediate the relationship between poverty and health
- Unstably housed or homeless persons are an especially vulnerable subgroup of PLWHA

Sources: Marmot *Health Affairs* 2002, Aidala *AIDS Behav* 2007, Wolitski *AIDS Behav* 2010, Kidder *JAIDS* 2008

Background: HIV and homelessness in NYC, by the numbers

- 117,618 persons living with HIV/AIDS (PLWH), 2013
- 2,832 new HIV diagnoses, 2013
- NYC represents 13% of the national HIV prevalence
- 65,229 persons daily accessing homeless shelters, March 2015; higher HIV prevalence than general pop.
- 3,357 street homelessness, 2014
- 2,842 PLWHA cycling through HIV emergency housing, 2013

Sources:

NYC DOHMH HIV data: http://www.nyc.gov/html/doh/downloads/pdf/ah/surveillance2013-table-all.pdf

CDC NYC/US HIV data: http://www.cdc.gov/hiv/pdf/g-l/hiv_surveillance_report_vol_25.pdf

DHS shelter data: http://www.nyc.gov/html/dhs/downloads/pdf/dashboard/dhs_data_dashboard_charts_FY-2015-Q3.pdf, http://www.nyc.gov/html/dhs/downloads/pdf/homeless_adults_health.pdf

NYC HOPE street homeless data: https://a071-hope.nyc.gov/HOPE/statistics.aspx

Background: HOPWA

- Federal funding from Housing and Urban Development (HUD) for Housing Opportunities for Persons with AIDS (HOPWA)
- Program types: supportive housing, rental assistance, housing placement assistance, and case management
- NYC DOHMH administers >$47M in HOPWA funding that serves approximately 35,000 PLWHA per year
- HOPWA eligibility criteria: very low income*, HIV-positive NYC resident

*Very low income is defined as annual gross income that does not exceed 50% of median family income for NYC defined by HUD

Aims

- Measure engagement in care for housing program clients using the HIV care continuum
- Create a care continuum from diagnosis* to suppression for NYC HOPWA clients and 2013 NYC PLWHA overall
- Calculate the percent reaching each step
- Calculate the percent of persons retained in care who were suppressed, since HOPWA encourages and pays for retention support

* Began with diagnosed rather than all infected because interested in care-related rather than testing-related phenomena, and all HOPWA clients had been diagnosed, so more comparable between HOPWA and all NYC PLWHA

Methods

- Matched data on 2013 NYC HOPWA enrollees with the NYC HIV surveillance registry
- Obtained from registry HIV diagnosis dates, and dates and results of HIV-related laboratory tests (CD4 count and HIV viral load [VL], used for multiple steps of continuum)
- Constructed care continuum for HOPWA & PLWHA overall

Definitions

Step of Care Continuum	Definition
Diagnosed	Diagnosed, reported to NYC HIV surveillance registry, and presumed to be living in 2013
Linked to care	Any viral load or CD4 test since 2001, at least 8 days after date of HIV diagnosis
Retained in care in 2013	Any viral load or CD4 test in 2013
Initiated antiretroviral therapy	Viral suppression [≤200 copies/mL] at any point since 2001
Achieved viral suppression	Last viral load in 2013 was ≤200 copies/mL

Sources: Sabharwal *JAIDS* 2014, Wiewel *JAIDS* 2015

Results: NYC HOPWA care continuum

(35,168 HOPWA enrollees in NYC in 2013)

Engagement in HIV care	Percentage
Ever HIV-diagnosed	**100%**
Ever linked to HIV care	**>99.5%** of diagnosed
Retained in HIV care in 2013	**96%** of diagnosed 96% of linked to care
Presumed ever started on ART	**91%** of diagnosed 95% of retained in care
Suppressed viral load (≤200 copies/mL) in 2013	**71%** of diagnosed **74%** of retained 78% of started on ART

Results: NYC PLWHA care continuum

(117,618 PLWHA in NYC in 2013)

Engagement in HIV care	Percentage	Details
Ever HIV-diagnosed	**100%**	
Ever linked to HIV care	**86%** of diagnosed	
Retained in HIV care in 2013	**63%** of diagnosed	74% of linked to care
Presumed ever started on ART	**60%** of diagnosed	94% of retained in care
Suppressed viral load (≤200 copies/mL) in 2013	**50%** of diagnosed	**79%** of retained (**74%** for HOPWA); 84% of started on ART

Percentage axis: 0%, 20%, 40%, 60%, 80%, 100%

Discussion

- Rates of viral suppression were higher among HOPWA clients than PLWHA overall
- Rates became similar when limited to the subsets of persons retained in care
- HOPWA clients have high retention but do no better at suppression
- Consistent with recent comparison of NYC HOPWA vs. non-HOPWA care outcomes using propensity score matching*

*Terzian *et. al.*, *AIDS Behav* 2015

Limitations

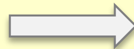
- Doesn't illuminate *how* people remained retained in care or achieved VS
- No exploration of dosage, and no causality proven between housing and outcomes
- Engagement in care measured by proxy of laboratory tests
- HOPWA clients and PLWHA overall are not equivalent or mutually exclusive groups

Future Research Directions

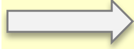
- Assess individual and population care engagement trends over time
- Consider alternative measures and comparison groups, e.g., limit to retained in care; non-HOPWA comparison group
- Subgroup analyses, e.g., demographics, specific housing service models
- Assess additional indicators as proxy of health, not solely HIV clinical indicators

HOPWA data system:

11,464
Clients Served



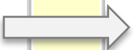
26
Agencies Funded



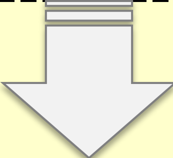
937,688
Services Delivered

$

- Real Time Assessments
- One-Click APR
- Client Demographics
- Medical Information
- Mental Health
- Substance Abuse
- HMIS
- Housing Placements
- HIV Medications
- Rental Assistance
- Intake Assessment
- Re-Assessments



911,702,551
Data Points



eHARS Data Matching

Source: eCOMPAS ® 2007-2015

Acknowledgements

- Coauthors John Rojas, MPA, of NYC DOHMH; Laura M. McAllister-Hollod, MPH, formerly of NYC DOHMH; and Jesse Thomas, of RDE Systems, LLC
- Other colleagues in the Housing Services Unit and HIV Epidemiology and Field Services Program, NYC DOHMH
- NYC housing service providers and clients
- HUD and CDC (funders)