

# Surveillance Data: A tool for HIV research

## □ Agenda

- ◆ Stephanie Masiello-Schuette – Director of STI/HIV Surveillance, Epidemiology and Research:
  - ◆ CDPH HIV Data Sources
- ◆ Nanette Benbow – NU Research Assistant Professor, Ce-PIM and Director of the TC-CFAR End HIV Scientific Working Group:
  - ◆ HIV Epidemic in Chicago
- ◆ Christina Hayford – TC-CFAR Research Data Analyst:
  - ◆ Thinking Spatially: GIS in HIV Research
- ◆ Stephanie Masiello- Schuette:
  - ◆ CDPH HIV Prevention Priorities – HIV Community Services

# **CDPH HIV Prevention Priorities – HIV Community Services**

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**May 11, 2016**

# HIV Community Services

- HIV Community Services connect at-risk people and PLWH to medical, behavioral, and other health-related care.
- Current HIV Community Services include:
  - **Prevention services**, including HIV testing, PrEP promotion, engagement / retention services (including data to care), community engagement and mobilization, marketing
  - **Ryan White services**, including early intervention services, outreach, medical and non-medical case management programs, substance use and mental health services
  - **HIV housing services** including facility-based, short-term housing assistance

# What are we presenting today?

- Priorities for:
  1. Geographic areas most impacted by HIV
  2. Population groups most impacted by HIV

# What are we presenting today?

- Priorities for:
  3. Special concerns populations
  4. Interventions / services to reduce HIV transmission, reduce health disparities and improve quality of life for PLWH

# Why do we set prevention priorities?

- To ensure we have the greatest public health impact possible
- To support High Impact Prevention
- To align with the National HIV/AIDS Strategy
- To follow CDC guidance

# How did we select priorities?

- Reviewed most current epidemiological data (upcoming slides) with CAHISC Full Body
- Reviewed Unified Plan planning data (upcoming slides) with CAHISC Full Body
- Reviewed CDC guidance and priorities
- Reviewed best practice models (upcoming slides)

# How did we select priorities?

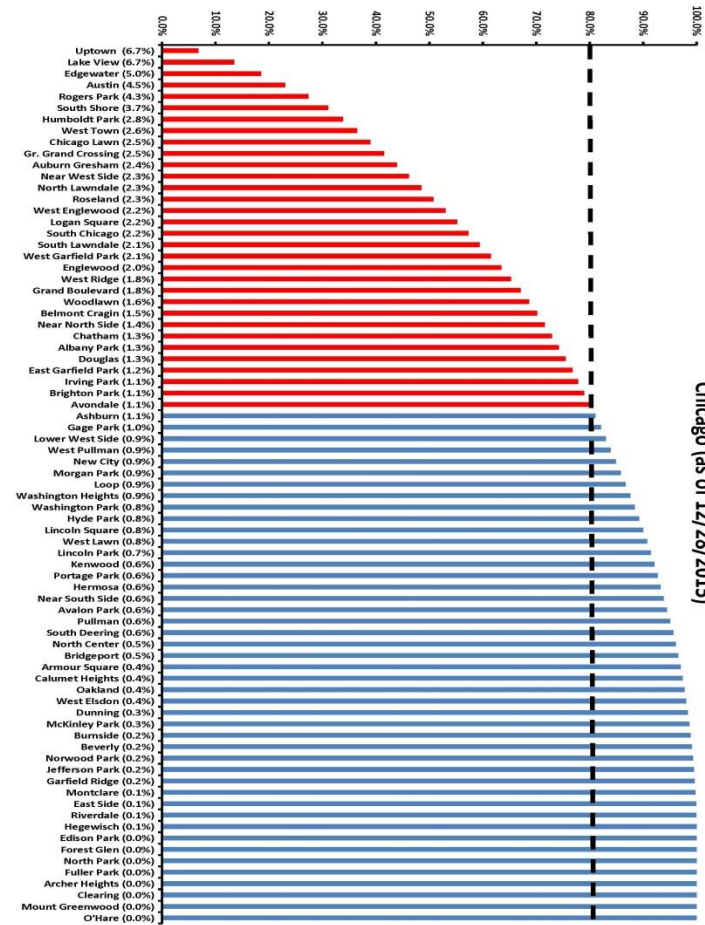
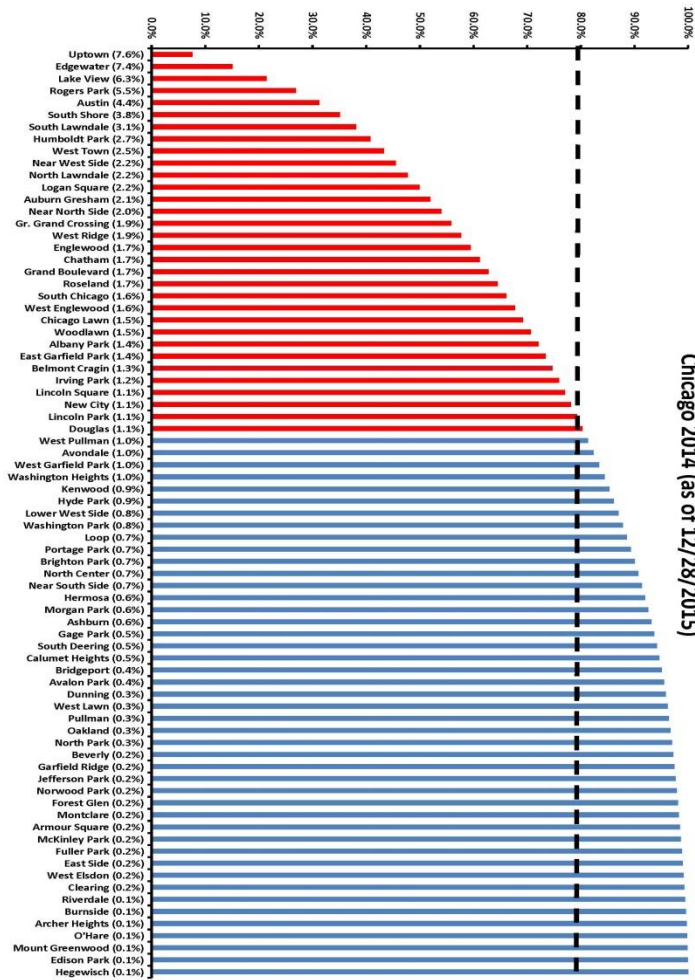
- Reviewed CDC **guidance** and priorities
  - “...programmatic activities and resources are...allocated to the most disproportionately affected populations and geographical areas that bear the greatest burden of HIV disease.”



# How did we select priorities?

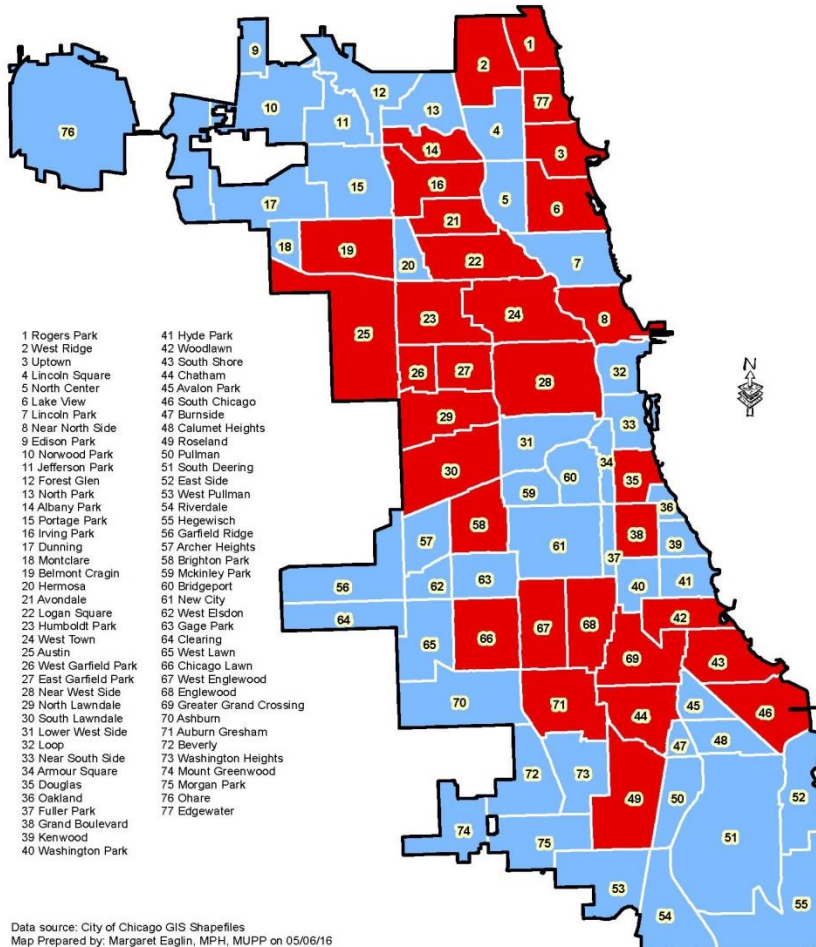
- Reviewed CDC guidance and **priorities**
  - HIV testing
  - Linkage to care
  - Engagement/retention in care
  - Condom distribution
  - Social marketing, media and mobilization
  - PrEP and nPEP

# Community Areas most impacted by HIV

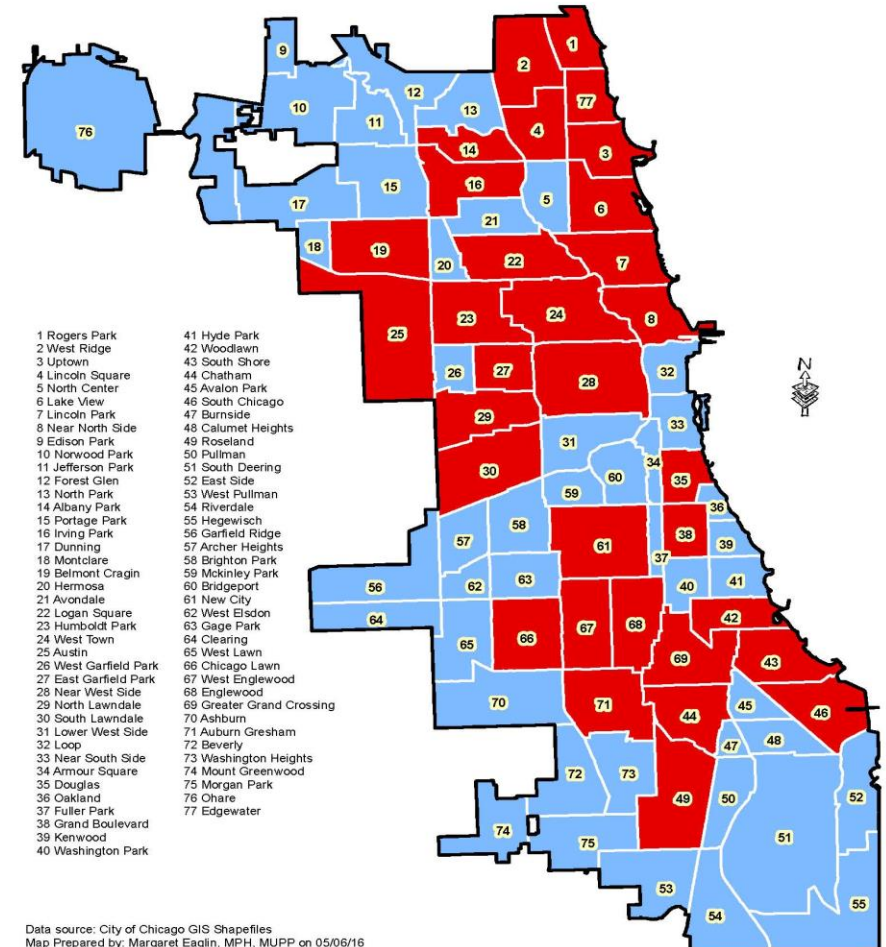


# Community Areas most Impacted by HIV

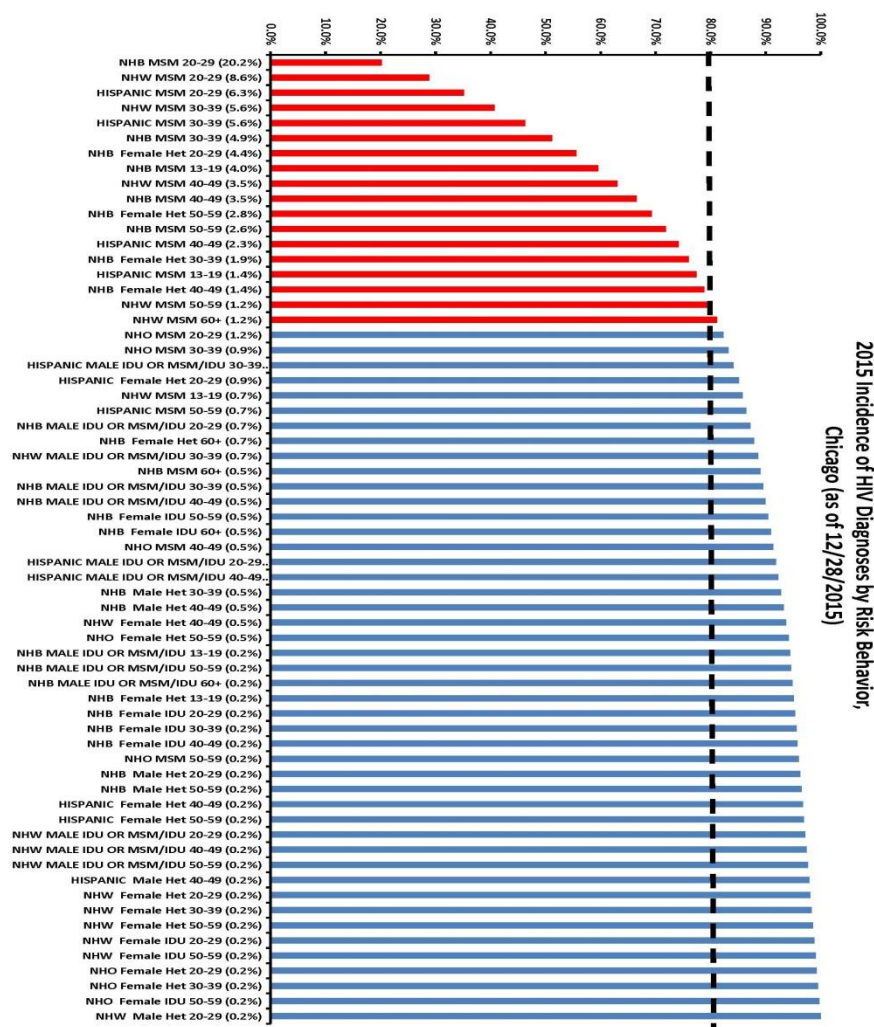
Chicago Community Areas that Comprise 80% of the 2013-2014 Average Annual HIV Infection Diagnosis Cases



Chicago Community Areas that Comprise 80% of the People Living with HIV Infection, Chicago 2014 (as of 12/28/2015)



# Populations most Impacted by HIV



- People living with HIV
- Gay/bisexual/men who have sex with men of all races, ethnicities and ages
- Non-Hispanic Black cis-women

By focusing on these three groups, we actually get well beyond 80% of all infections, both incidence and prevalence.

# Special Concerns Populations

- Transgender individuals
  - This population has been brought up multiple times in Unified Plan planning process data
- Person who inject drugs
  - This population has experienced significant declines in HIV infection. Efforts to maintain are necessary.

# Interventions and Services

- Historically, we have funded:
  - Specific interventions, by name,
  - Level (individual level, group level, community level) and
  - Area of impact (prevention with positives, prevention with negatives).

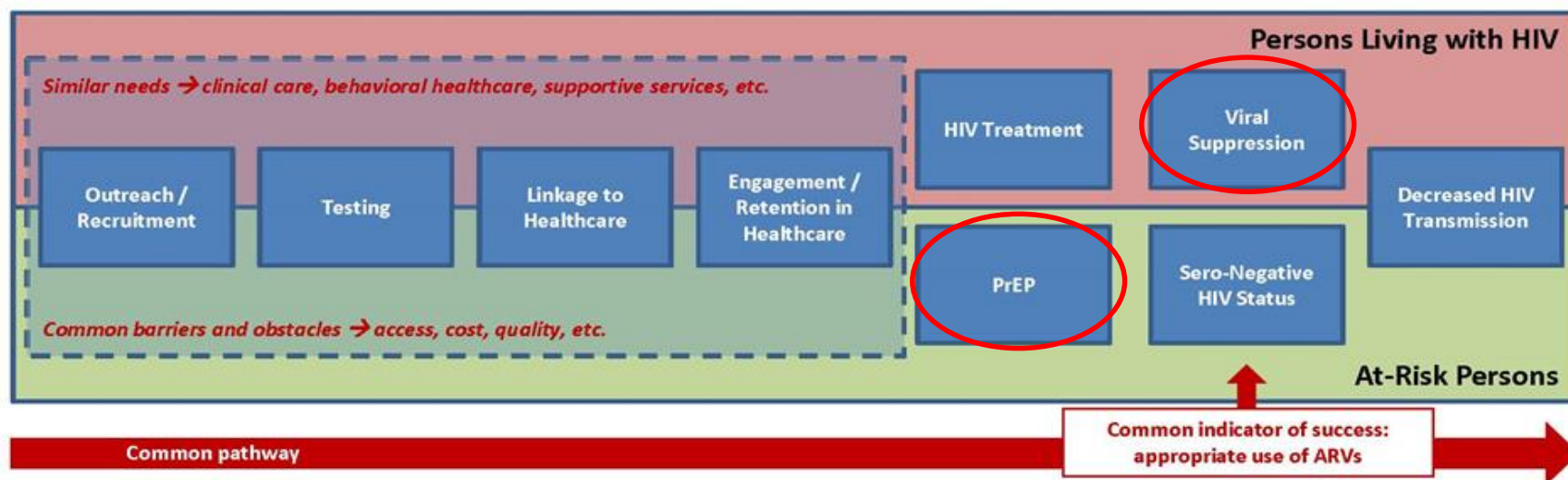
# Interventions and Services

- Changing perspective
  - To support CAHISC's priority framework, including primary outcomes – viral suppression and PrEP – we need to consider interventions and services differently.
  - Moving forward, we must prioritize interventions and services that are focused on linking and keeping people connected to the healthcare system. Successful ART use is our goal.



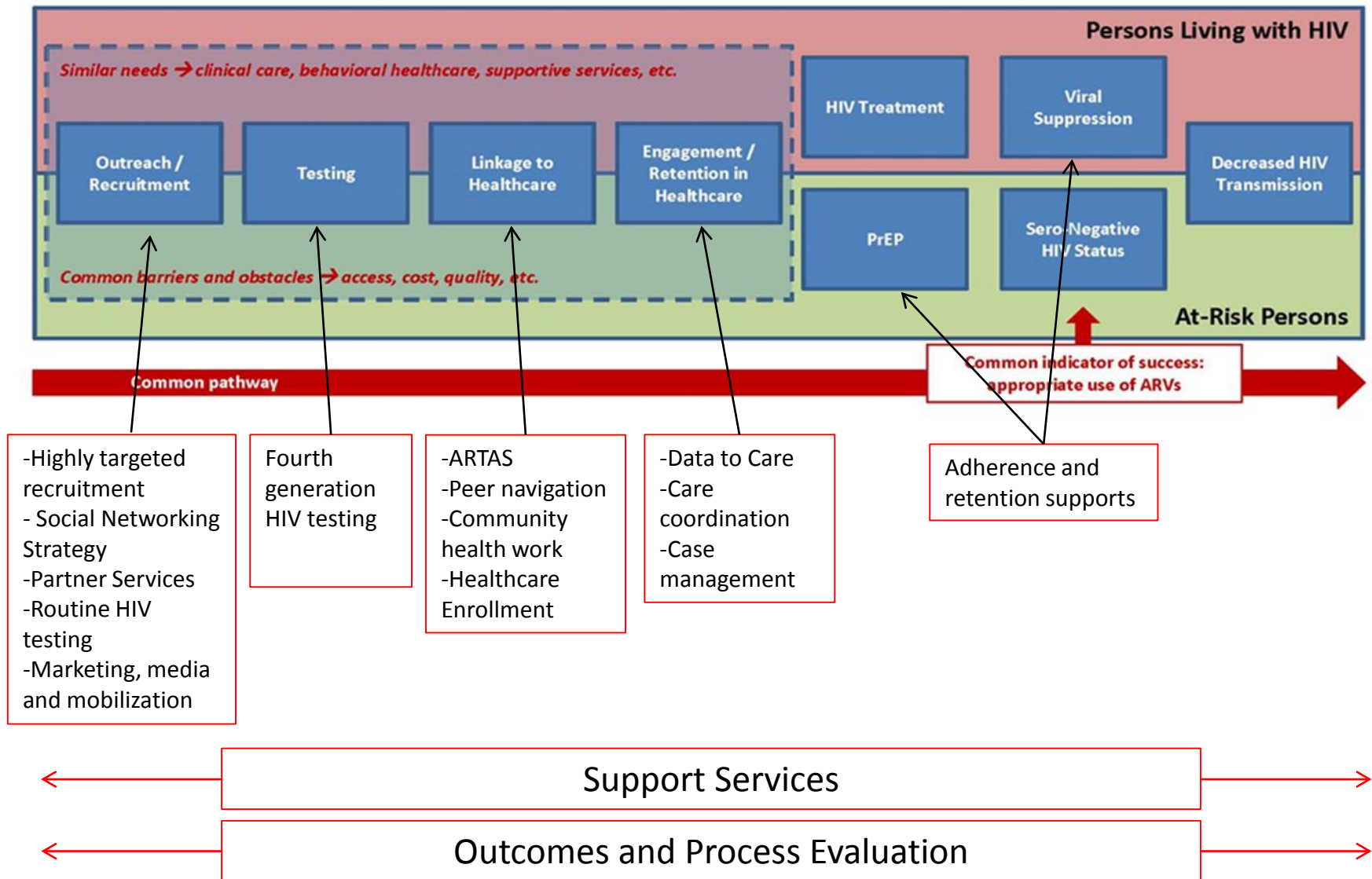
# Interventions by Impact

Moving forward we will be supporting interventions by point of impact along this continuum.





# Interventions by Impact



# Interventions by Impact

- How does the impact model compare to current model?

Current model	Impact model
Includes services for HIV- and HIV+	Includes services for HIV- and HIV+
Separates services for HIV- and HIV+	Integrates services for HIV- and HIV+
Funds highly targeted stand-alone services	Funds comprehensive, targeted “bundles” of services
Heavy focus on behavioral outcomes	Heavy focus on biomedical outcomes
Limited engagement of healthcare system	Significant engagement of healthcare system

# Other Interventions and Services

- Condom distribution
- STI screening and treatment
- nPEP
- Syringe services programs

# Summary

- People living with HIV
- All men who have sex with men
- Non-Hispanic Black cis-women
- Transgender individuals
- Persons who inject drugs (or other substances)
- Regions making up 80% of the burden of HIV
- Interventions targeting directly along the path to PrEP or viral suppression
- Continued external evaluation of innovations focusing on outcomes of the path toward PrEP and viral suppression

# THANK YOU



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[www.CityofChicago.org/Health](http://www.CityofChicago.org/Health)

# HIV Trends and Characteristics in Chicago

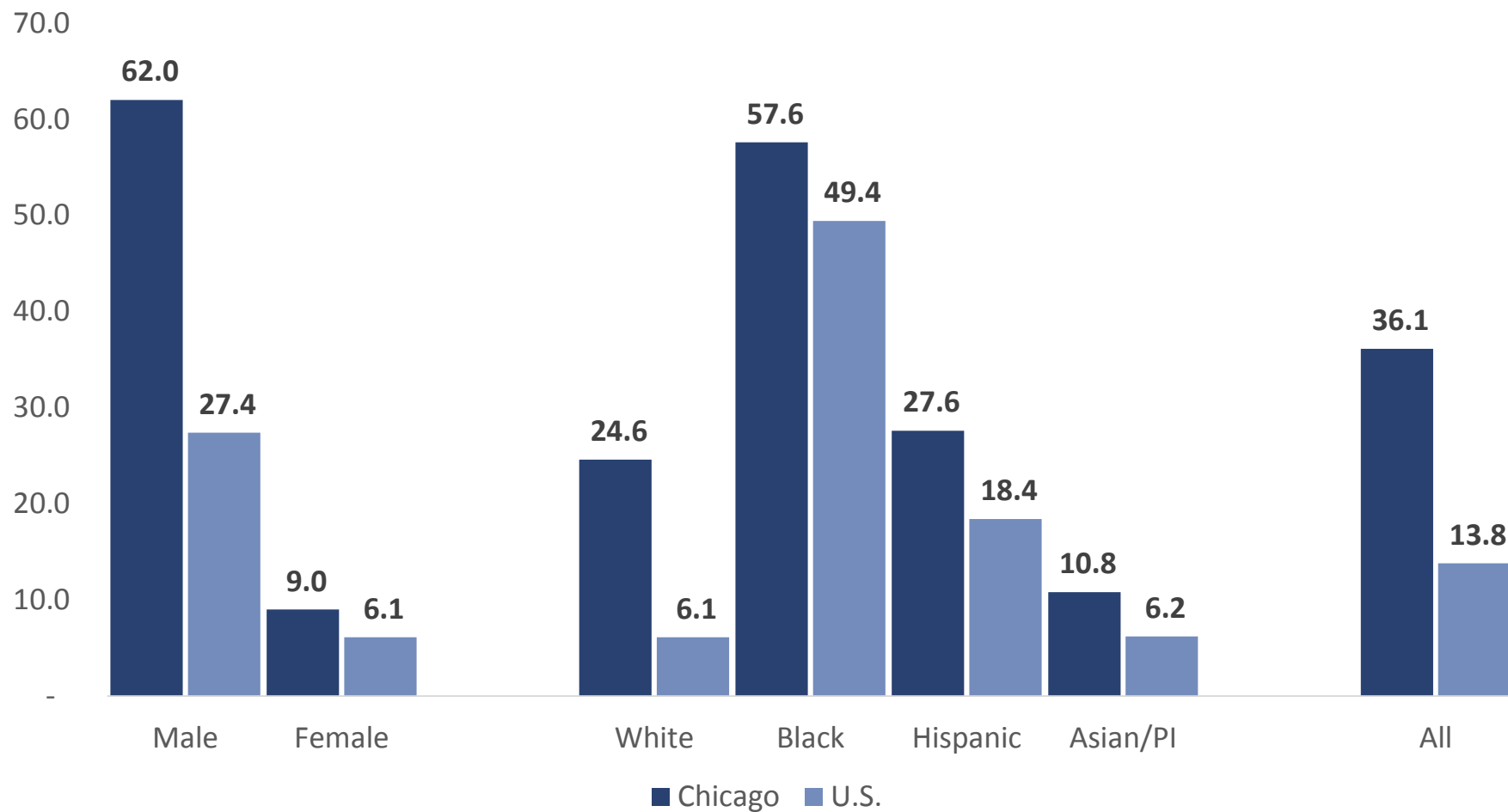
Prepared by Nanette Benbow

Data derived by the Chicago Department of Public Health (CDPH)

# Acknowledgements

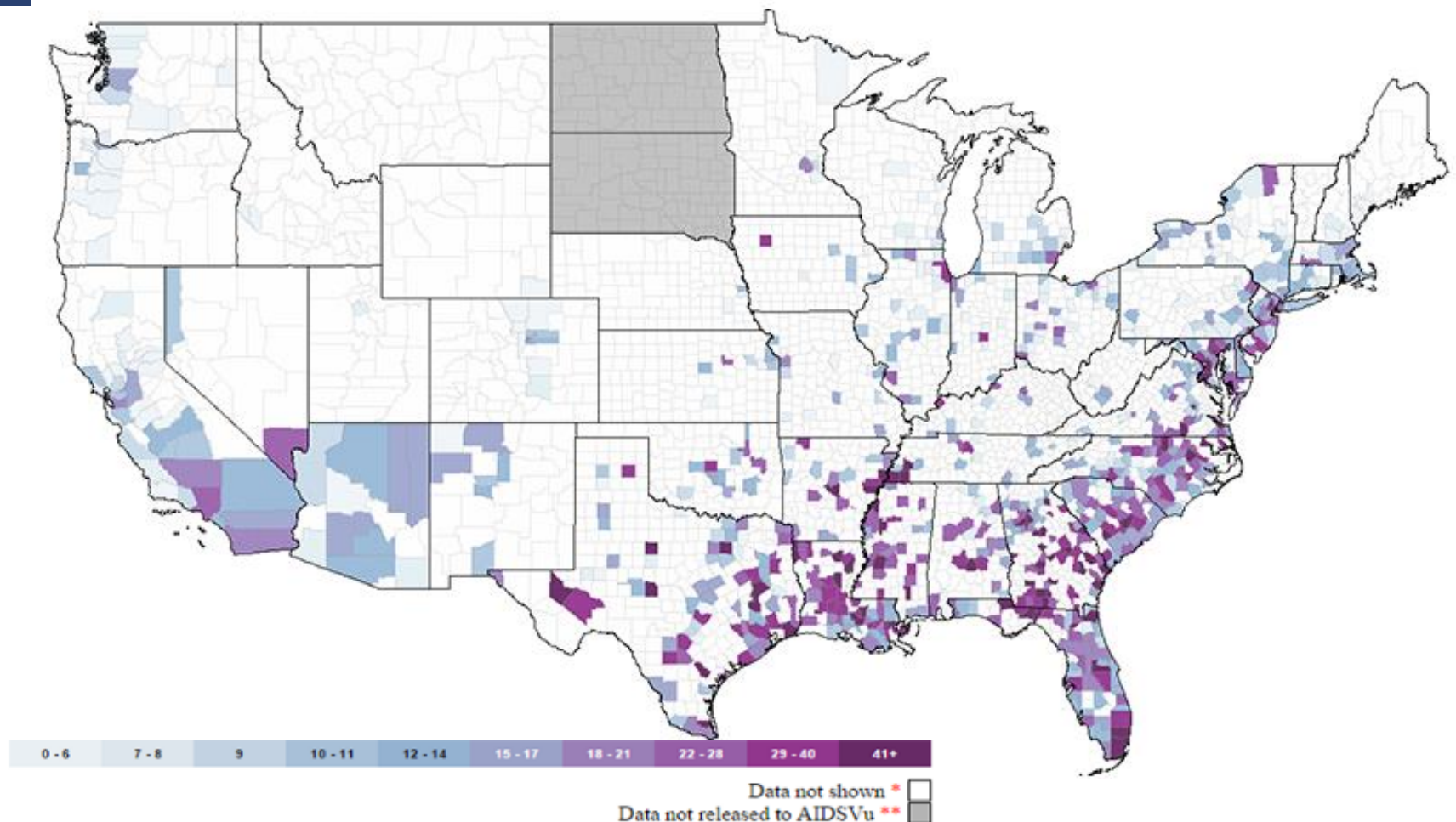
- ❑ Data for this presentation were obtained from the following sources:
  - ❑ Data provided by the Chicago Department of Public Health (CDPH). CDPH disclaims responsibility for any analysis, interpretations, or conclusions.
  - ❑ Publications and public presentations made by the Chicago Department of Public Health.

# 2014 HIV Diagnoses Rates per 100,000





# Rates of Persons Newly Diagnosed with HIV, by County, 2013

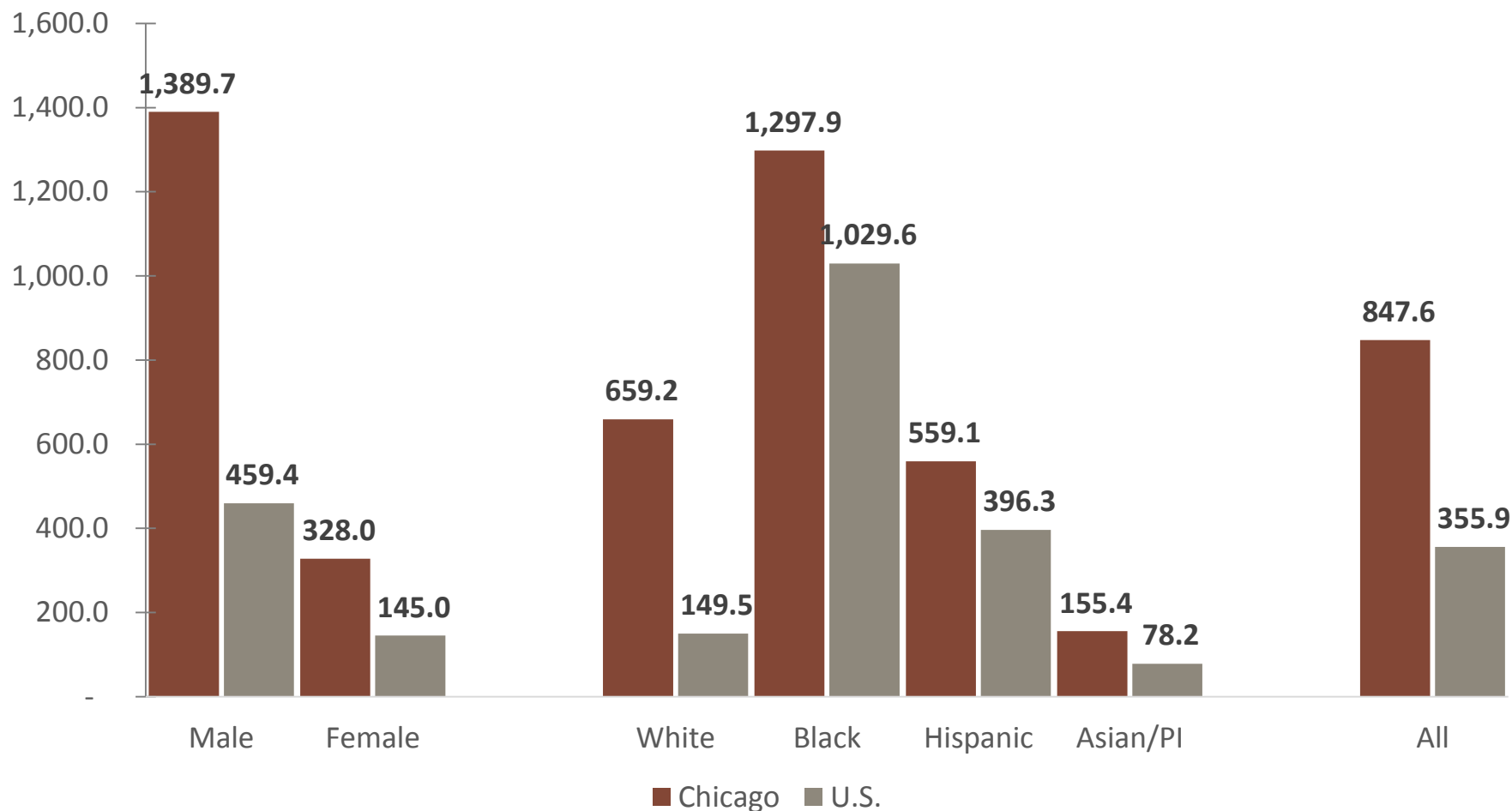


\* Data are not shown to protect privacy. \*\* State health department requested not to release data.

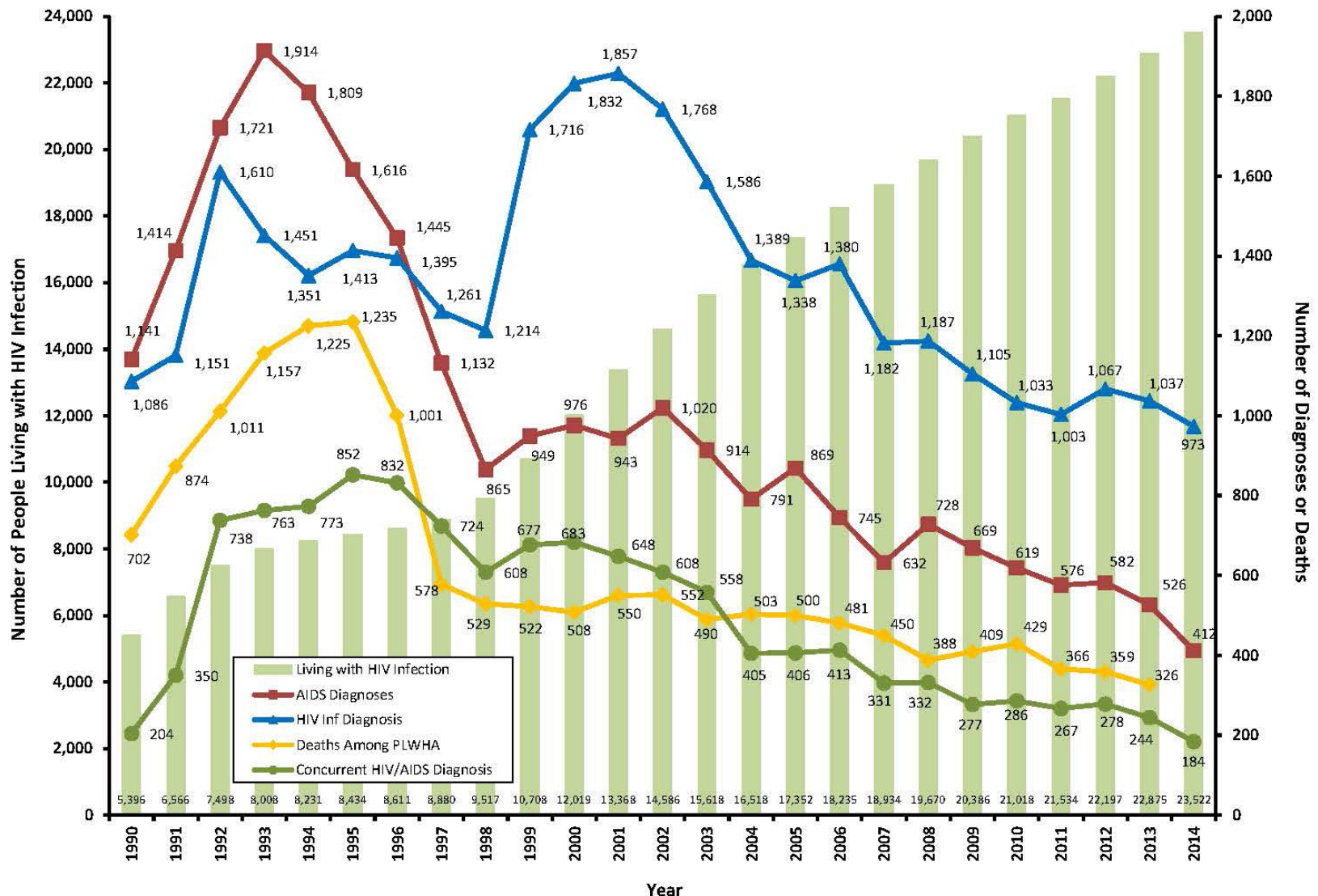
Note. Data include persons with a diagnosis of HIV infection, regardless of the stage of disease at diagnosis, and have been statistically adjusted to account for reporting delays and missing risk-factor information, but not for incomplete reporting. Data Source: Centers for Disease Control and Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention, Division of HIV/AIDS Prevention.

# 2013 HIV Prevalence Rates per 100,000

22,875 People Living with HIV (PLWH) in Chicago



# HIV & AIDS Prevalence and Diagnoses, 1990-2014, Chicago, as of 9/2015

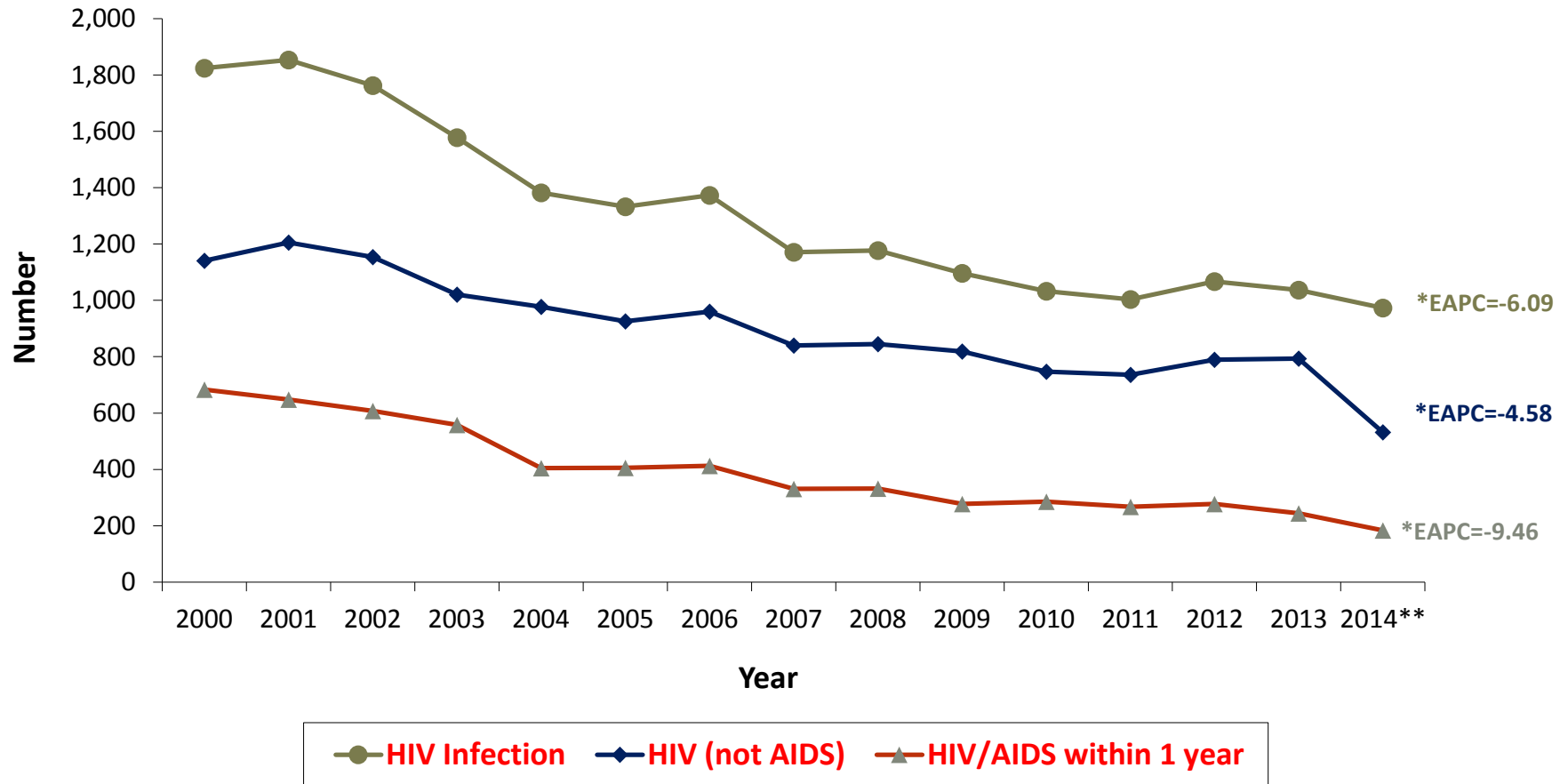


# Basic Characteristics of HIV Infection Diagnosis

Demographic Characteristics	Year of Diagnosis									
	2010		2011		2012		2013		2014	
	No.	%	No.	%	No.	%	No.	%	No.	%
<b>Gender**</b>										
Male	848	82.1	812	81.0	869	81.4	869	83.8	810	83.2
Female	174	16.8	176	17.5	176	16.5	161	15.5	138	14.2
Transgender: MtF	9	0.9	10	1.0	19	1.8	6	0.6	7	0.7
Transgender: FtM	2	0.2	5	0.5	3	0.3	1	0.1	7	0.7
<b>Race/Ethnicity^</b>										
Black, non-Hispanic	579	56.1	536	53.4	563	52.8	551	53.1	516	53.0
White, non-Hispanic	196	19.0	155	15.5	218	20.4	217	20.9	210	21.6
Hispanic	188	18.2	217	21.6	225	21.1	213	20.5	211	21.7
Asian/PI, non-Hispanic	15	1.5	11	1.1	10	0.9	16	1.5	16	1.6
AI/AN, non-Hispanic	2	0.2	1	0.1	2	0.2	1	0.1	0	0.0
Multiple, non-Hispanic	53	5.1	83	8.3	49	4.6	39	3.8	20	2.1
Unknown	6	0.6	2	0.2	6	0.5	12	1.1	0	0.0
<b>Transmission Group</b>										
Male Sex w/Male	698	67.6	687	68.5	791	74.2	785	75.7	762	78.3
Injection Drug Use	88	8.5	61	6.1	43	4.0	33	3.2	30	3.0
MSM and IDU§	28	2.7	38	3.8	27	2.5	27	2.6	25	2.6
Heterosexual	214	20.8	211	21.0	182	17.1	173	16.7	151	15.5
Other¶	5	0.5	6	0.6	24	2.2	19	1.8	6	0.6
<b>Age Category†</b>										
Less than 13	3	0.3	2	0.2	10	0.9	6	0.6	5	0.5
13-19	50	4.8	65	6.5	76	7.1	51	4.9	58	6.0
20-29	334	32.3	336	33.5	358	33.5	416	40.1	399	41.0
20-24	185	17.9	182	18.1	170	15.9	244	23.5	192	19.7
25-29	149	14.4	154	15.4	188	17.6	172	16.6	207	21.3
30-39	274	26.5	233	23.2	272	25.5	243	23.4	219	22.5
40-49	225	21.8	212	21.1	185	17.3	174	16.8	172	17.7
50-59	116	11.2	119	11.9	119	11.2	116	11.2	86	8.8
60+	31	3.0	36	3.6	47	4.4	31	3.0	34	3.5
<b>Total</b>	<b>1,033</b>	<b>100.0</b>	<b>1,003</b>	<b>100.0</b>	<b>1,067</b>	<b>100.0</b>	<b>1,037</b>	<b>100.0</b>	<b>973</b>	<b>100.0</b>

# HIV Infection Diagnosis, 2000-2014

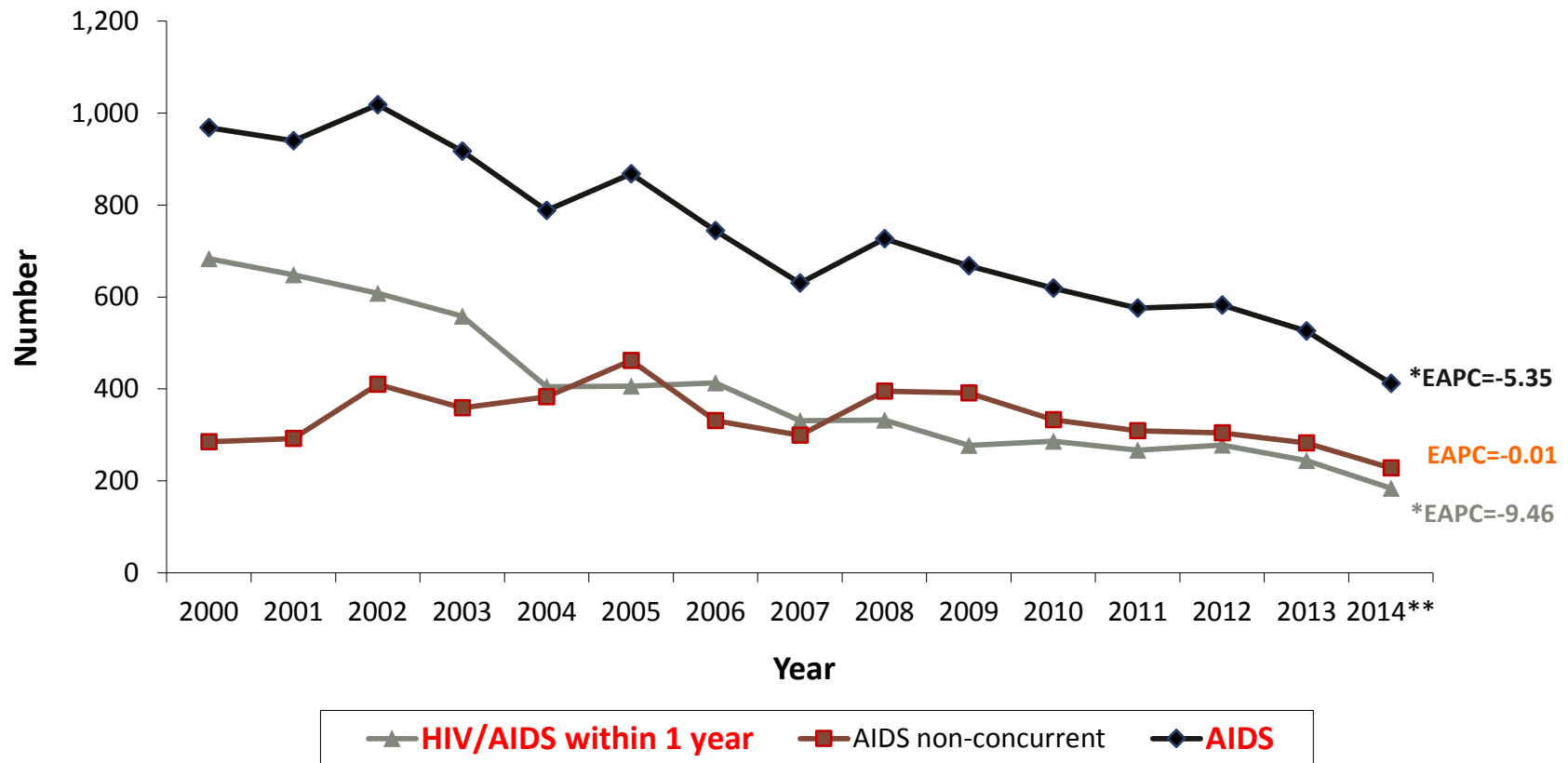
## Chicago, as of 9/15



\*p<.05; \*\* Data are still provisional

# AIDS (3<sup>rd</sup> Stage) Diagnosis, 2000-2014

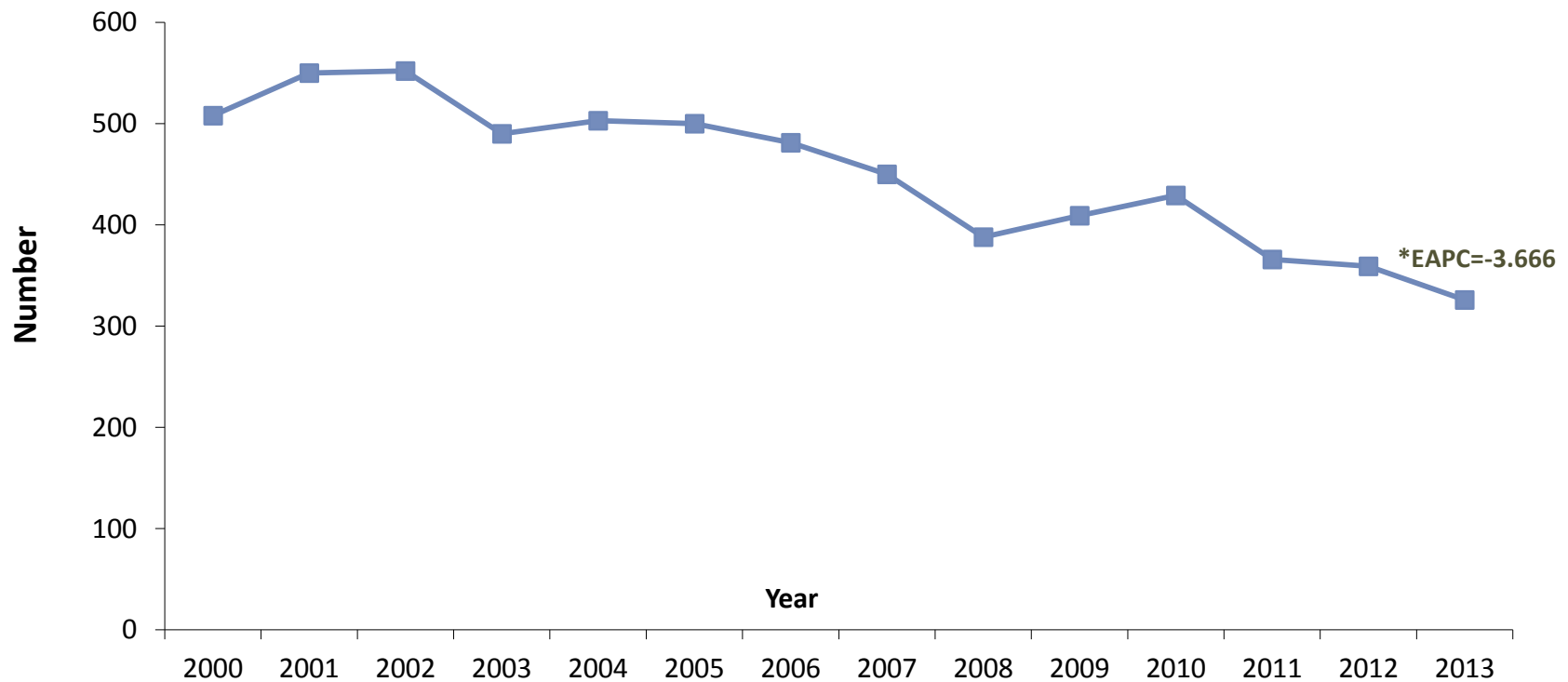
## Chicago, as of 9/15



\*p<.05; \*\* Data are still provisional

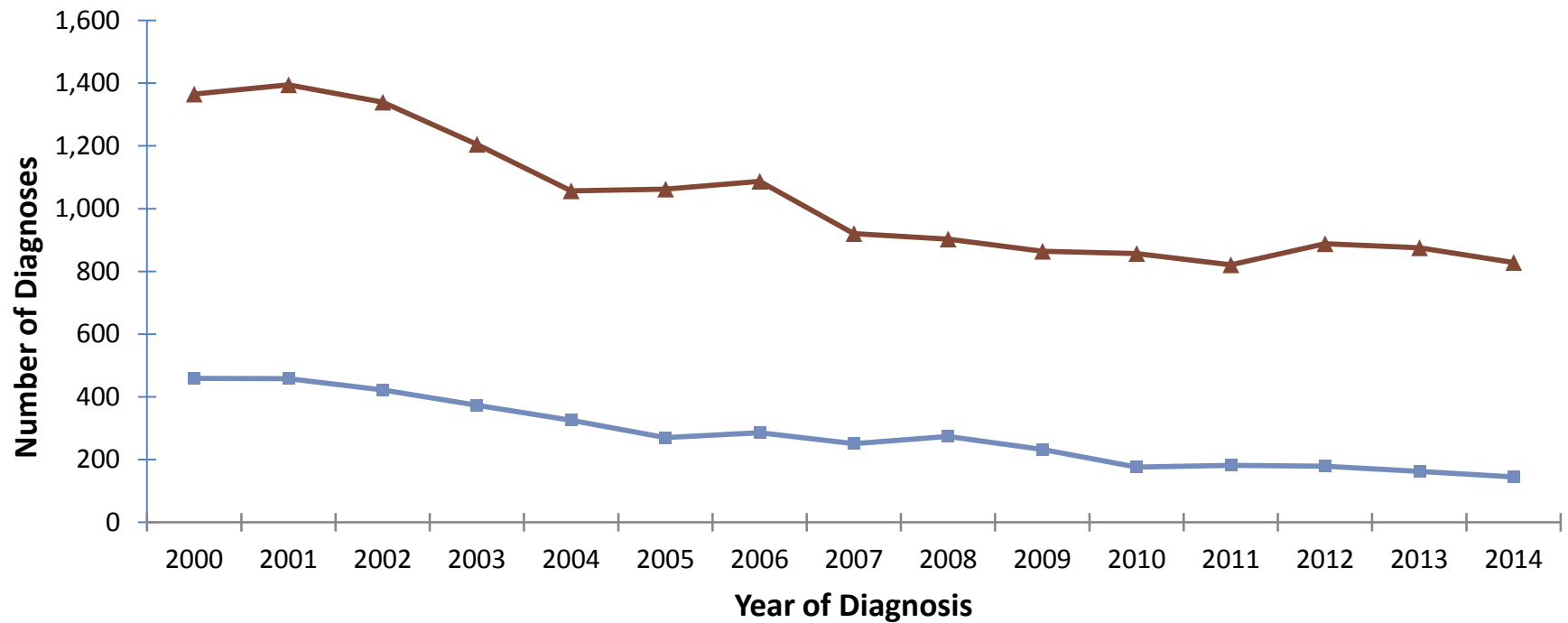
# Deaths to People w/HIV, 2000-2014

## Chicago, as of 9/15



\*p<.05; \*\* Data are still provisional

# HIV Infection Diagnosis by Sex, Chicago, as of 9/15

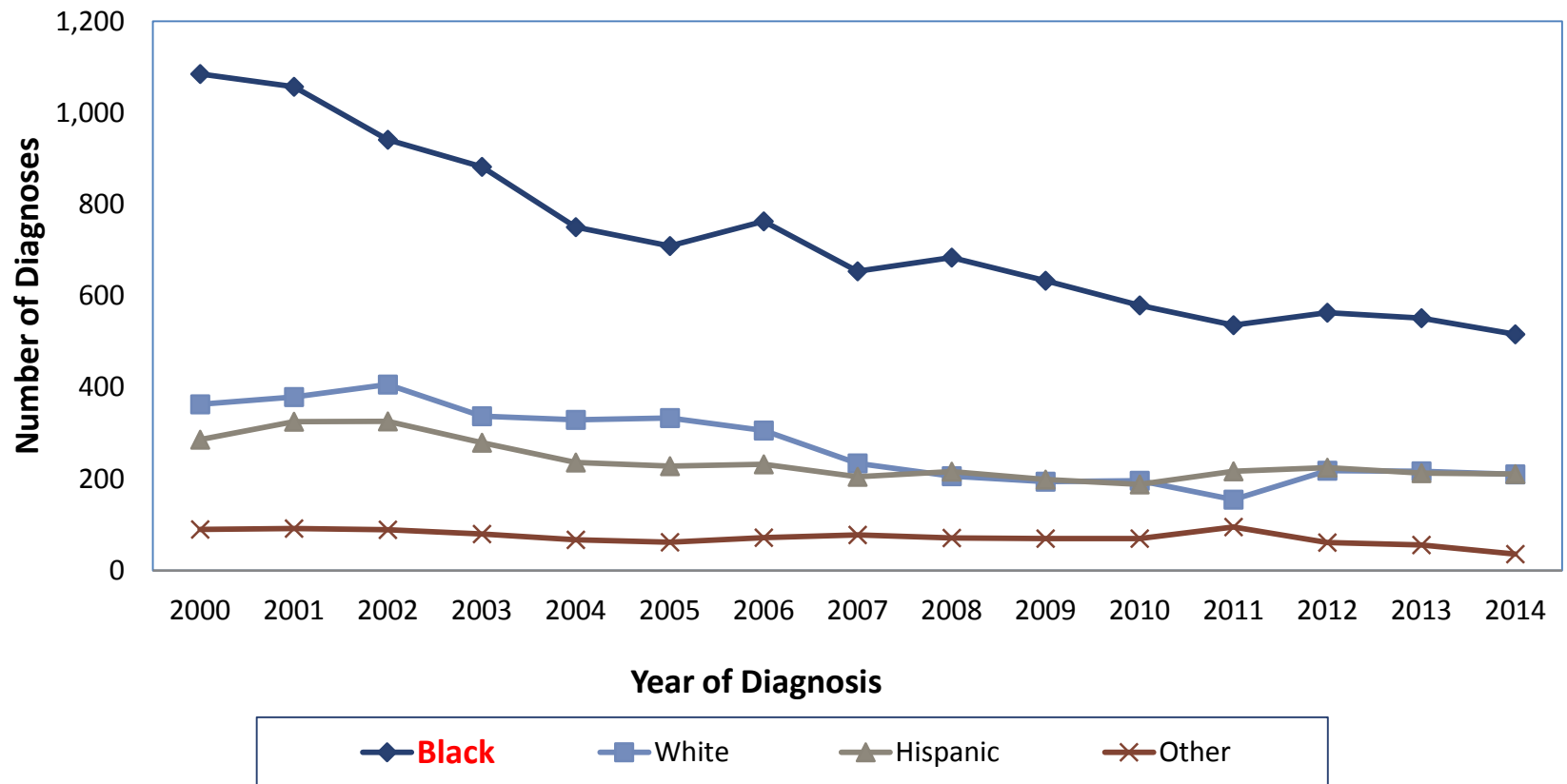


Female Male

Note: Demographic categories bolded in red have a significant EAPC ( $p < .05$ )



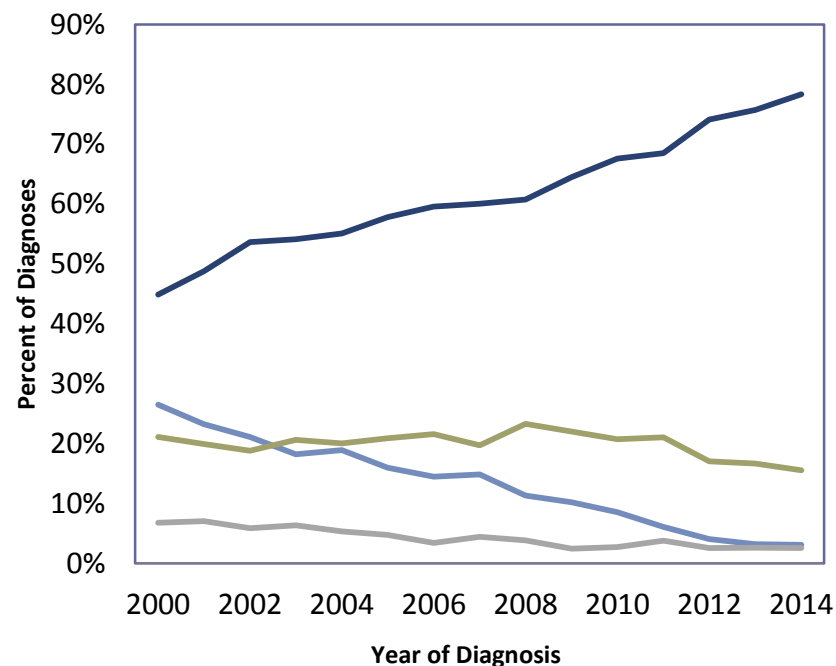
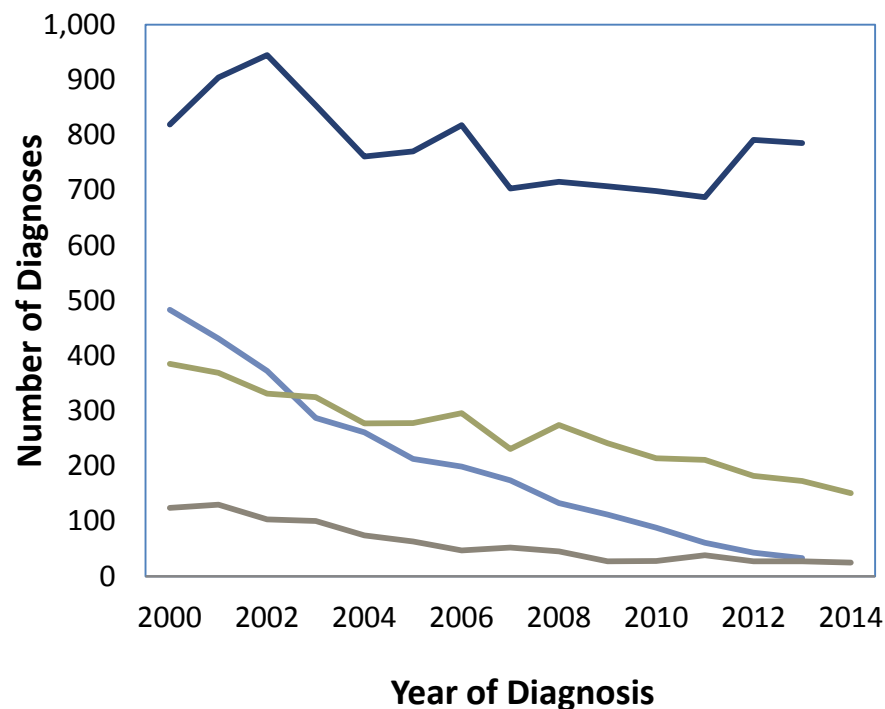
# HIV Infection Diagnosis by Race, Chicago, as of 9/15



**Significant declines also observed among Blacks by gender**

Note: Demographic categories bolded in red have a significant EAPC ( $p < .05$ )

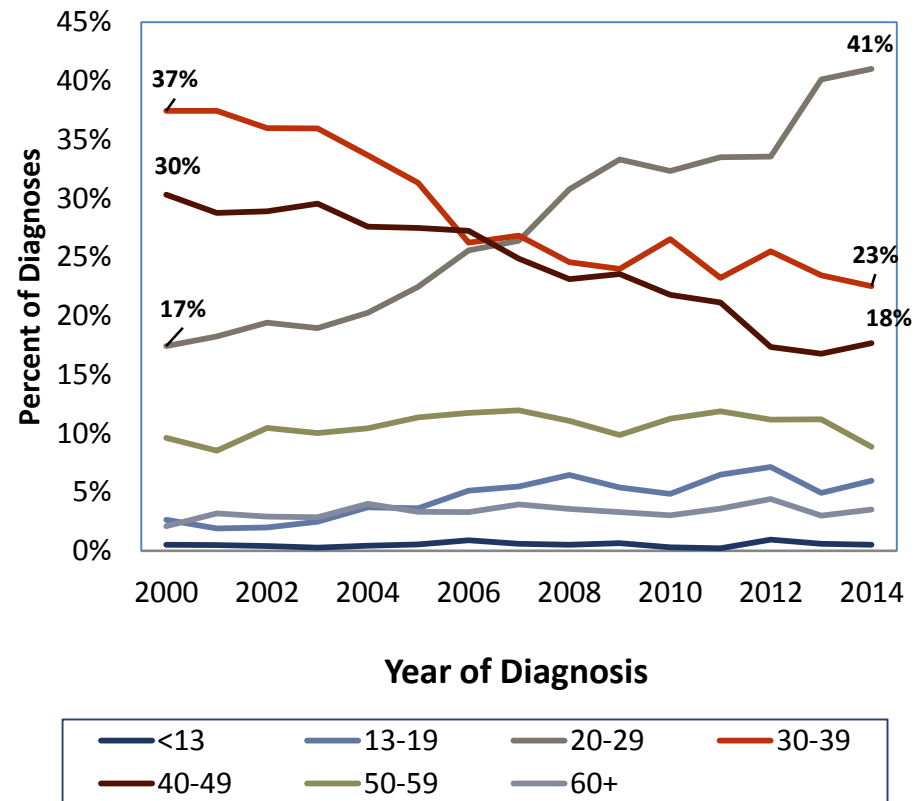
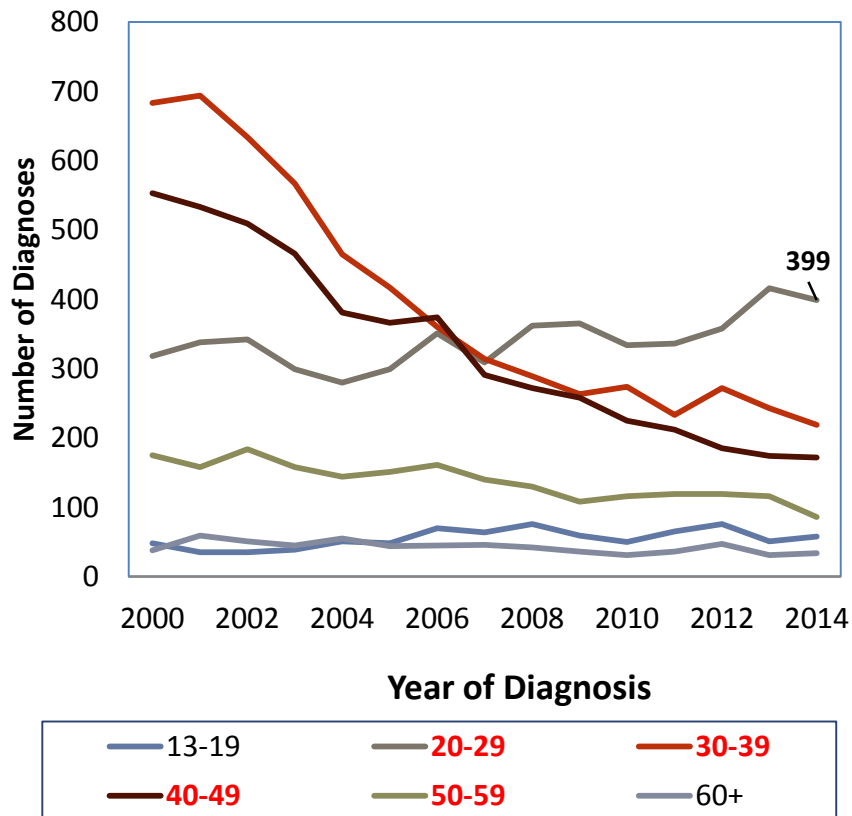
# HIV Infection Diagnosis by Risk, Chicago, as of 9/15



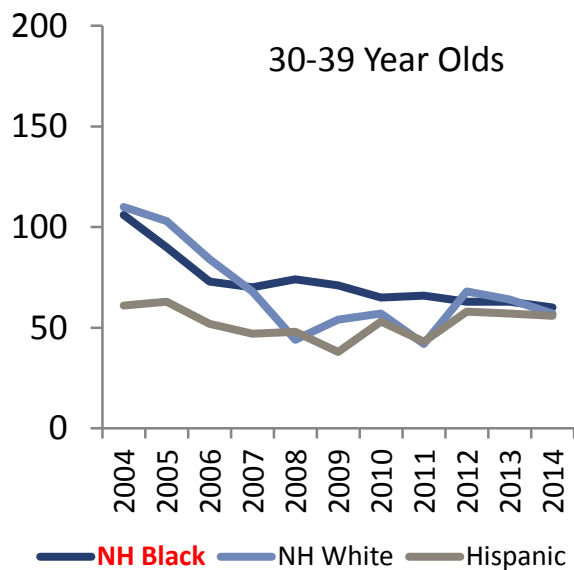
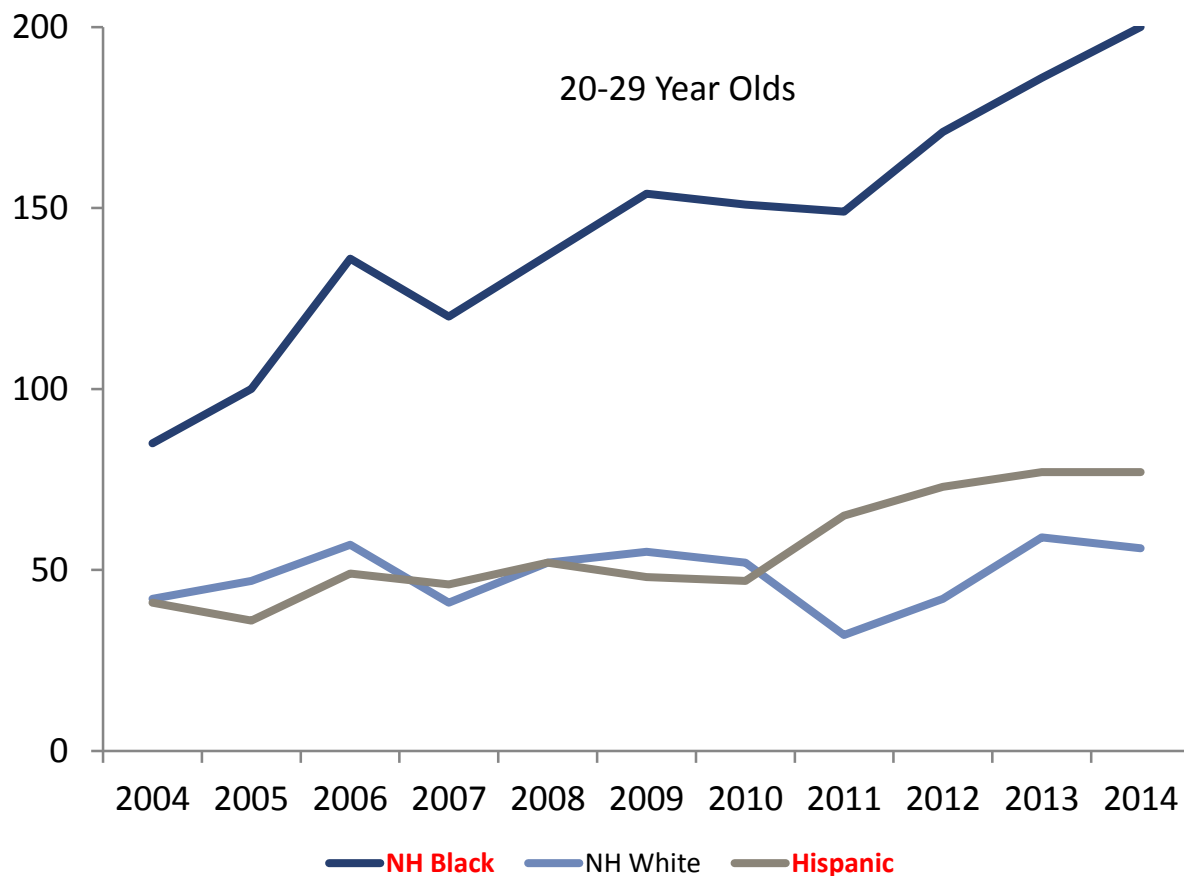
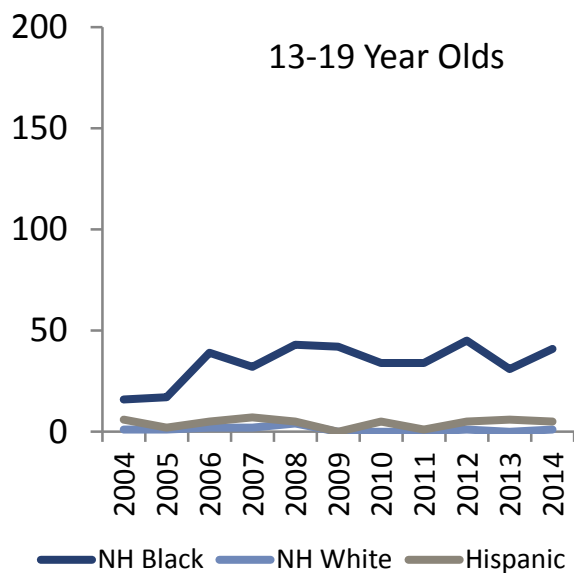
**Significant declines also observed for these risk categories by gender**

Note: Demographic categories bolded in red have a significant EAPC ( $p < .05$ )

# HIV Infection Diagnosis by Age, Chicago, as of 9/15



Note: Demographic categories bolded in red have a significant EAPC ( $p < .05$ )



## HIV Infection Diagnoses Among MSM by Age and Race/Ethnicity

Chicago, 2004-2014, as of 9/15

Note: Demographic categories bolded in red have a significant EAPC ( $p < .05$ )

# National HIV/AIDS Strategy Indicators<sup>16</sup> for 2020

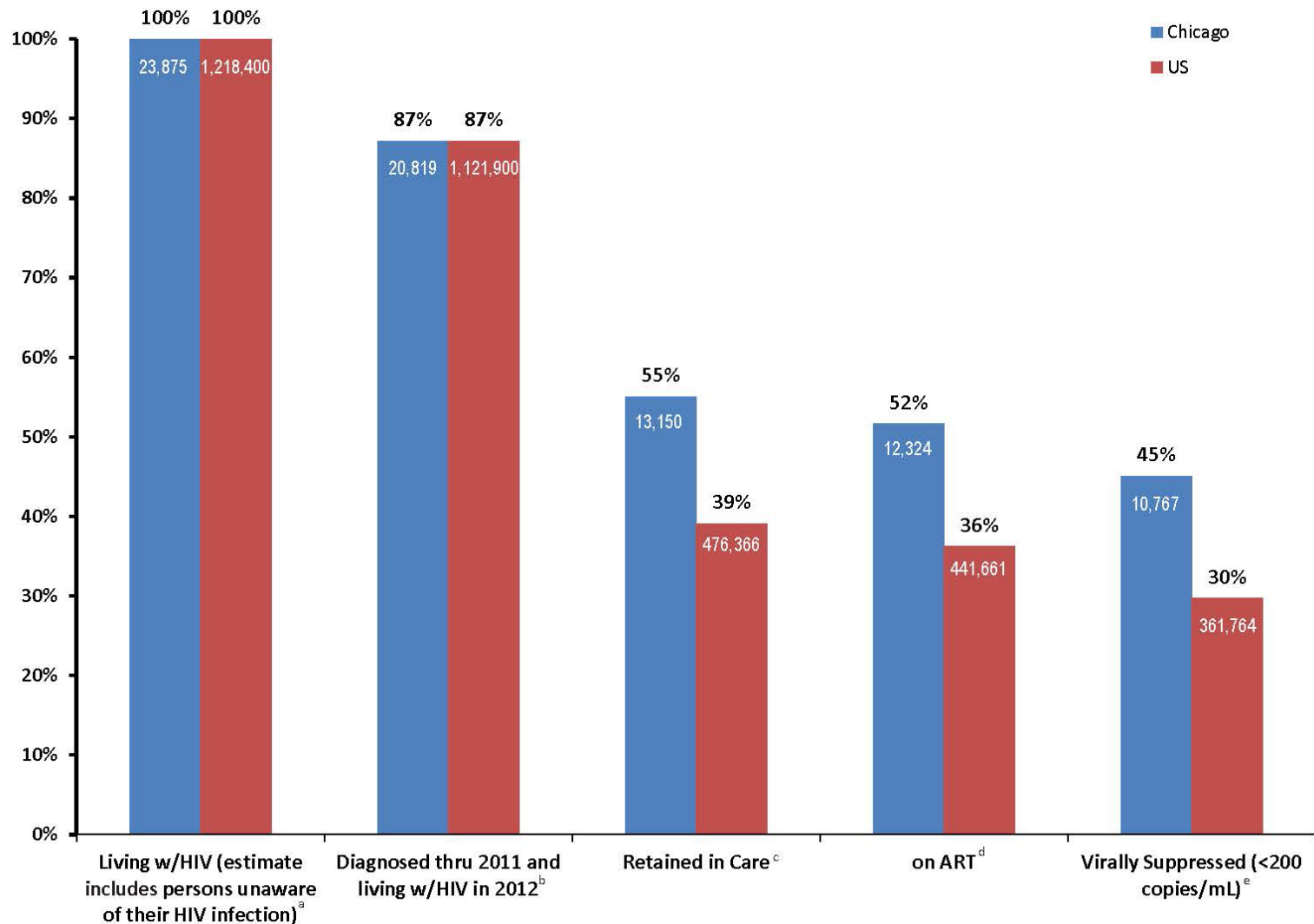
## ☐ **At Risk or Unaware of their Status**

- ☐ Reduce % percentage of young gay and bisexual men who have engaged in HIV-risk behaviors by at least 10% (multiple sex partners, IDU, or no condom use)
- ☐ Reduce number of new diagnoses by at least 25%
- ☐ Reduce disparities in the rate of new diagnoses by at least 15% in the following groups: gay and bisexual men, young Black gay and bisexual men, Black females, and persons living in the Southern United States
- ☐ Increase % PLWH who know their serostatus to at least 90%

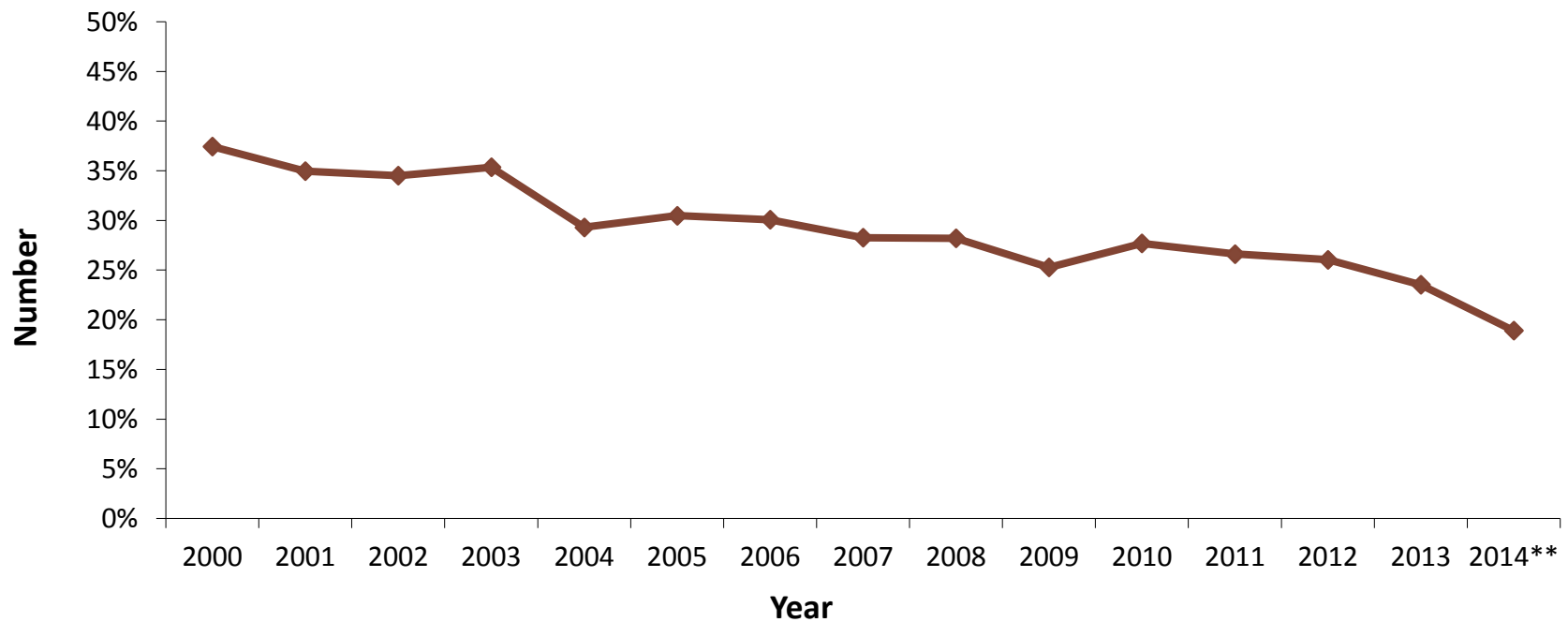
## ☐ **Living with HIV and Aware of their Status**

- ☐ Increase % of newly diagnosed persons linked to HIV medical care within one month of diagnosis to at least 85%
- ☐ Increase % of persons with diagnosed HIV infection who are retained in HIV medical care to at least 90%
- ☐ Increase % of persons with diagnosed HIV infection who are virally suppressed to at least 80%
- ☐ Reduce % of persons in HIV medical care who are homeless to no more 5%
- ☐ Reduce the death rate among PLWH by least 33 percent
- ☐ Increase % of youth and persons who inject drugs with diagnosed HIV infection who are virally suppressed to at least 80 percent

# HIV Continuum of Care for People 18+, Chicago and the U.S., 2012, as of 9/15

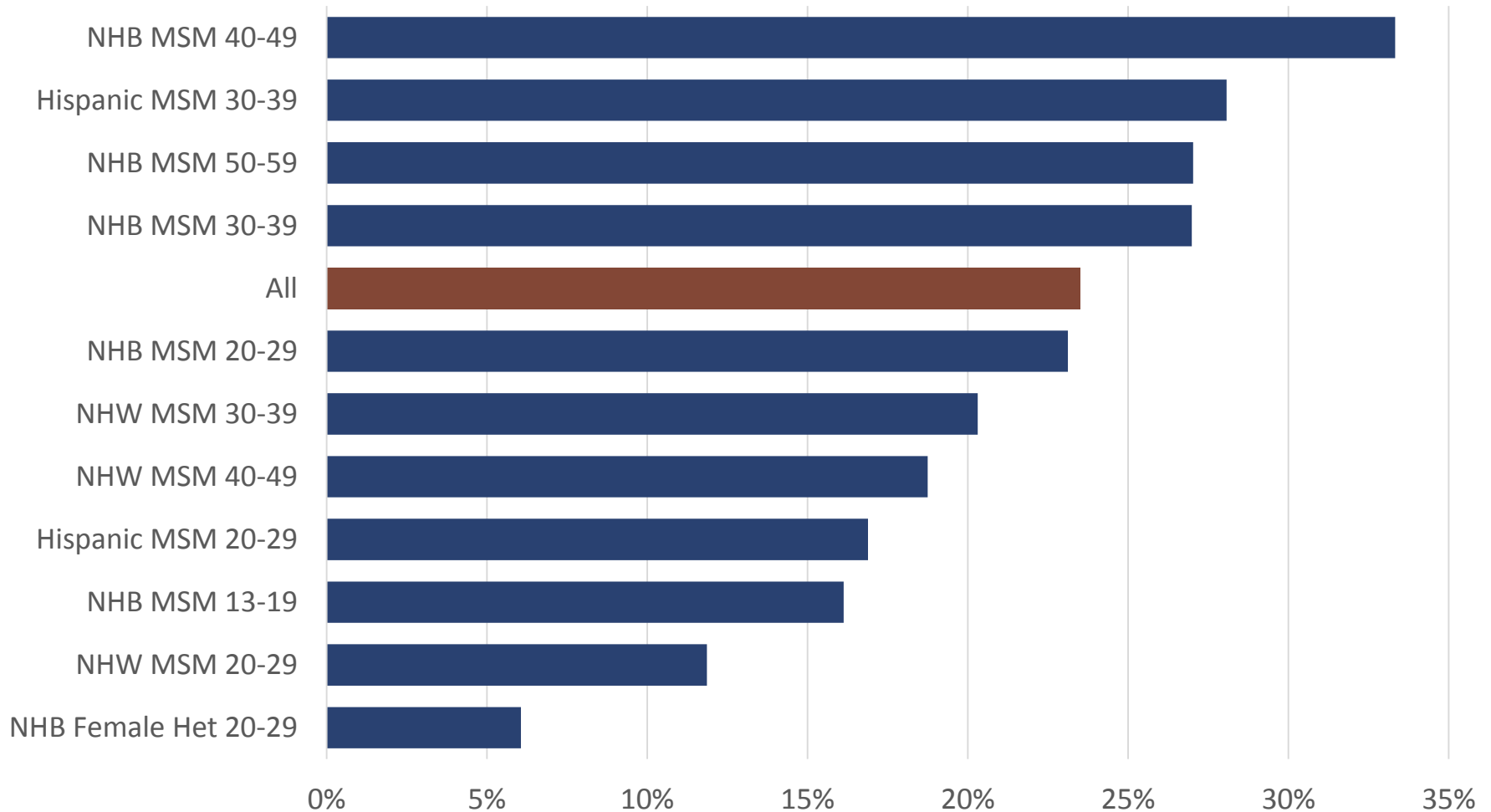


# % of HIV Diagnosis that were Diagnosed w/ AIDS in a year – Late Testers, Chicago, as of 9/15



\*\* Data are still provisional

# % Late Testers in 2013 for Select Demographic Groups\*, Chicago

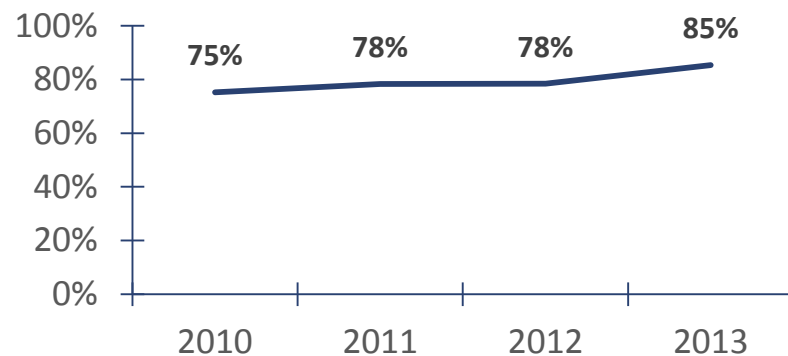


\*Race/Sex/Risk/Age groups with highest number of diagnoses who collectively account for 70% of late testers

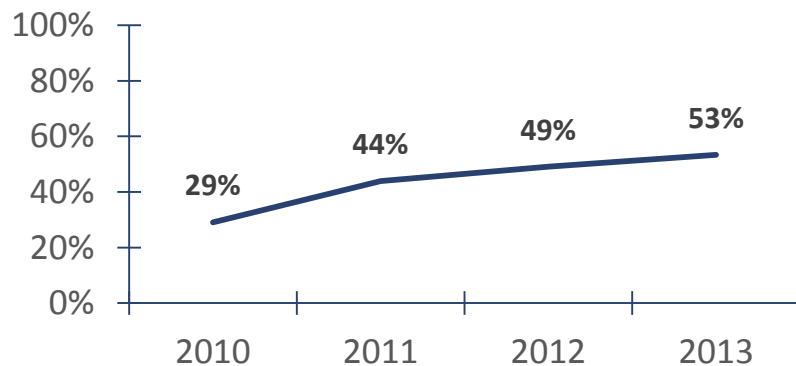


# Changes in HIV Care Indicators

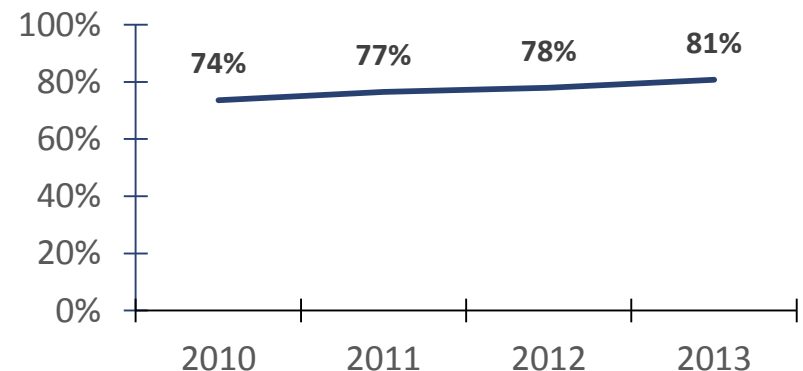
**Linked within 3 months of diagnosis\***



**% of PLWH accessing care\*\***



**% of those accessing care who are virally suppressed\*\*\***



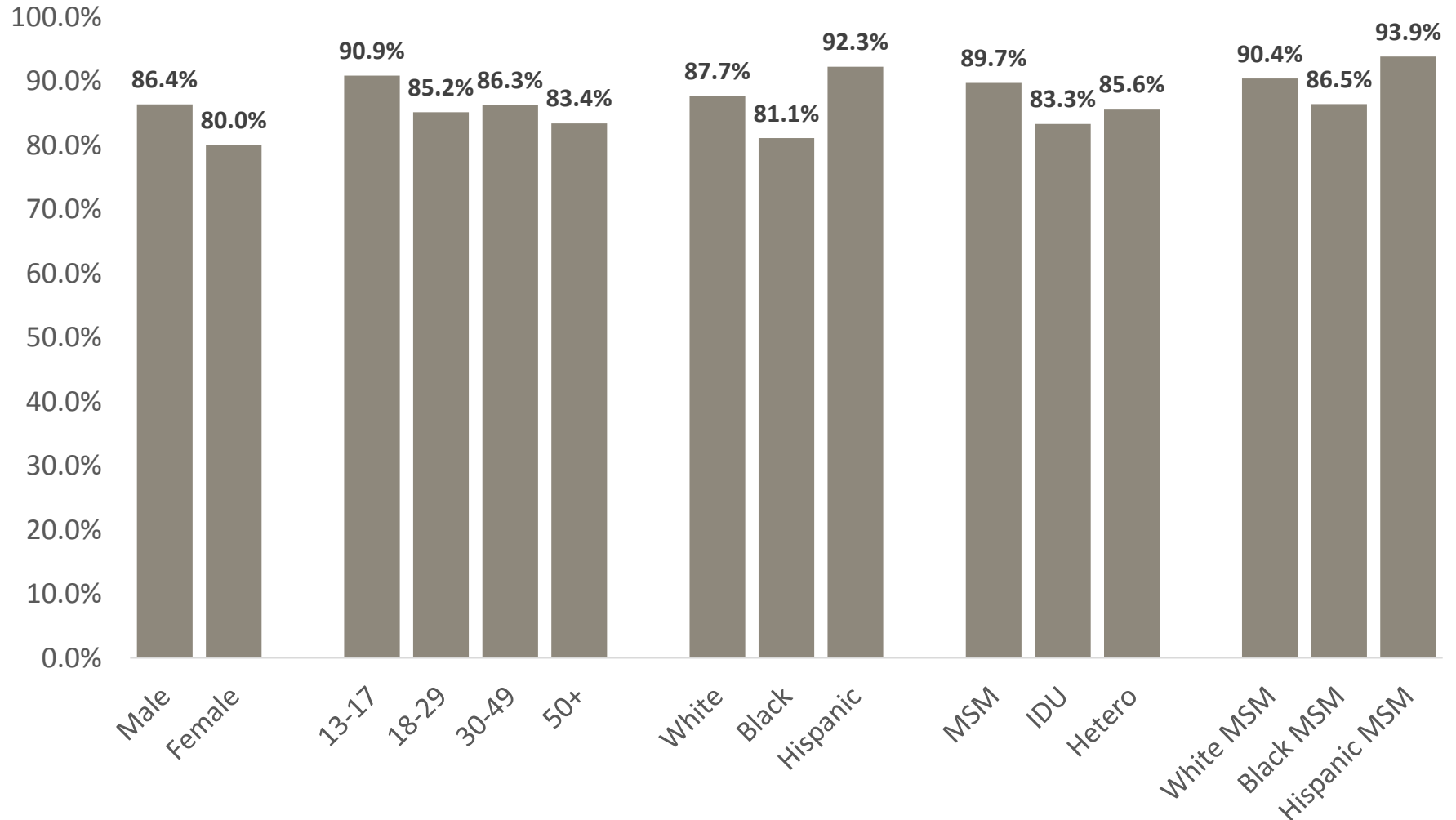
\*Linked to care defined as having a CD4 or VL test result within three months of diagnosis

\*\* Accessing care defined as having at least one VL in a year

\*\*\*Suppression defined as last VL value  $\leq 200$  copies/mL.

# Percent Linked to Care within 3 months in 2013, Chicago, as of 12/14

**NHAS Goal: 85% within 1 month; 90% within 3 months**



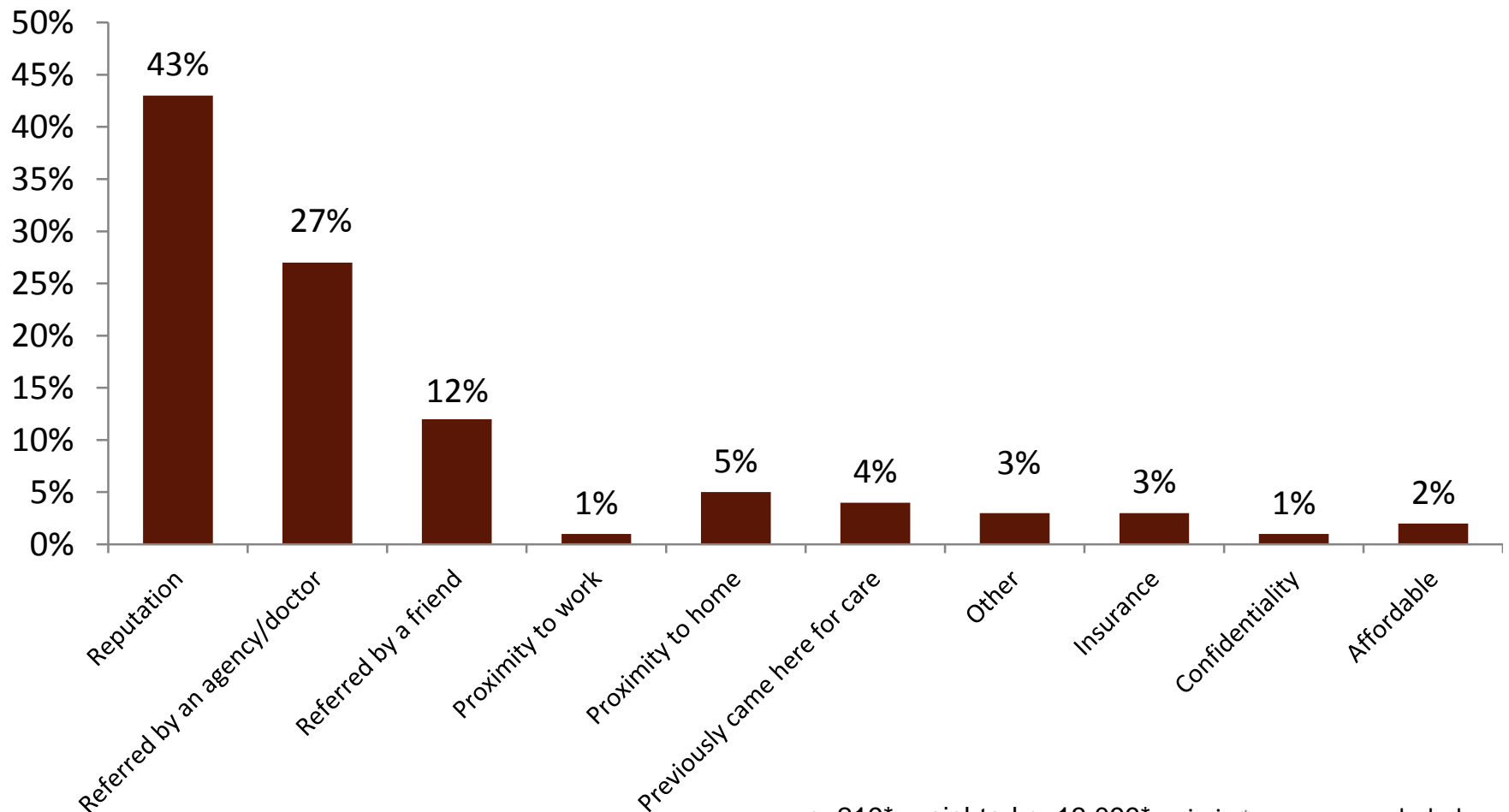
# Mechanism for Linkage to Care

## MMP, Chicago, 2012

	#	%
Medical evaluation at the time of diagnosis	2,951	23
Appointment scheduled for medical evaluation at the time of diagnosis	2,134	16
Referral for doctor given	2,513	19
Self motivated	4,815	37
Family or friend motivated	336	3
Sick/illness	249	2
Total	13,049*	100

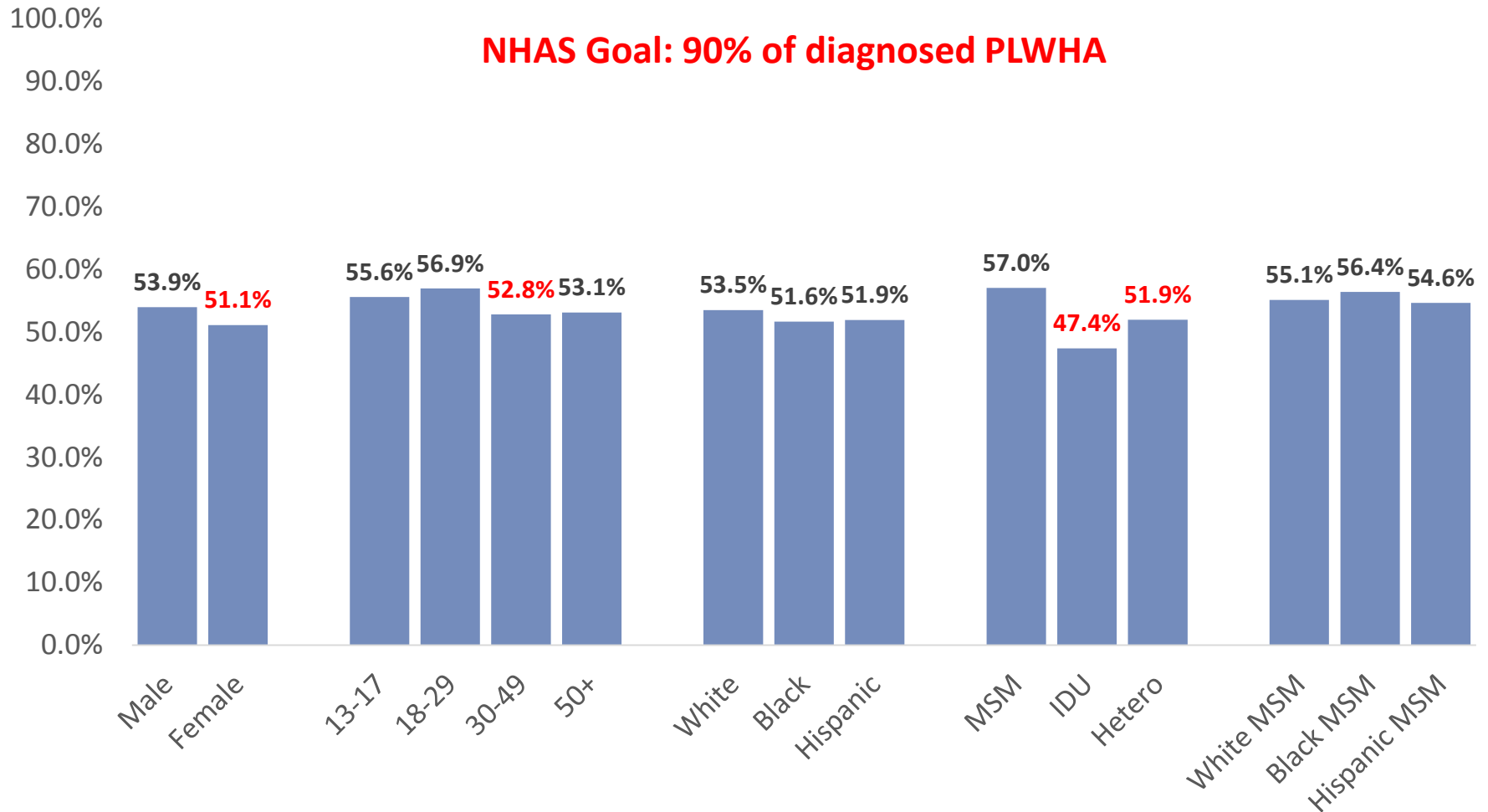
n=218\*; \*missing response excluded

# Main Reason for Selecting Care Location, MMP, Chicago, 2012



n=219\*, weighted n=13,099\*; missing response excluded

# Percent Accessing Care in 2013 , Chicago, as of 12/14



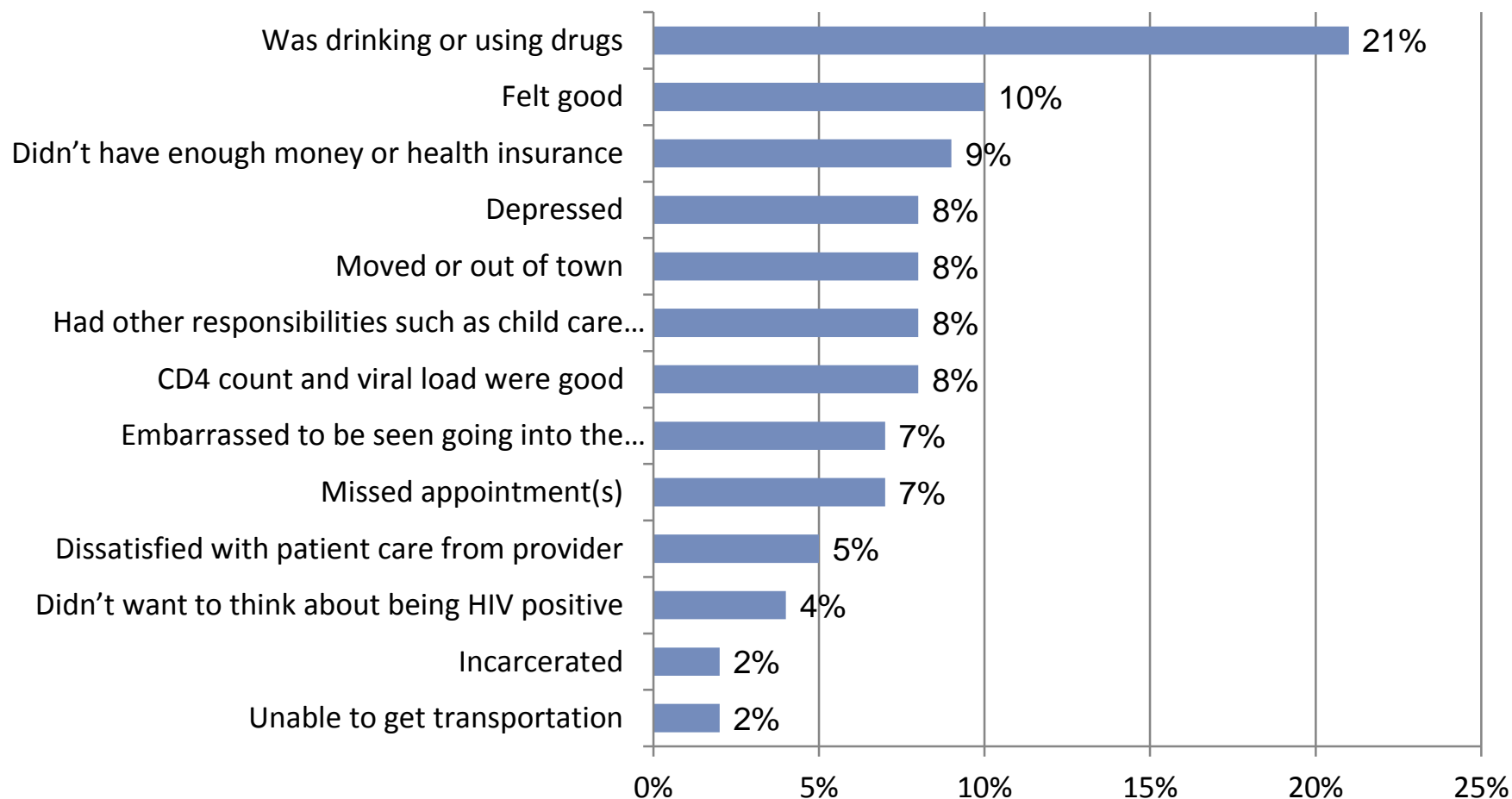
# Health Care and Access

National HIV Behavioral Surveillance System, Men Who Have Sex With Men, Chicago

August 2011 – December 2011 (N = 509)

	Black (n = 150) (%)	White (n = 233) (%)	Hispanic (n = 126) (%)
Have Health Insurance	53	82	57
Have Regular Source of Medical Care	81	82	70
Visited Health Care Provider	81	85	71
Health Care Provider offered HIV test	60	46	61
'Out' to your HC provider	75	83	71

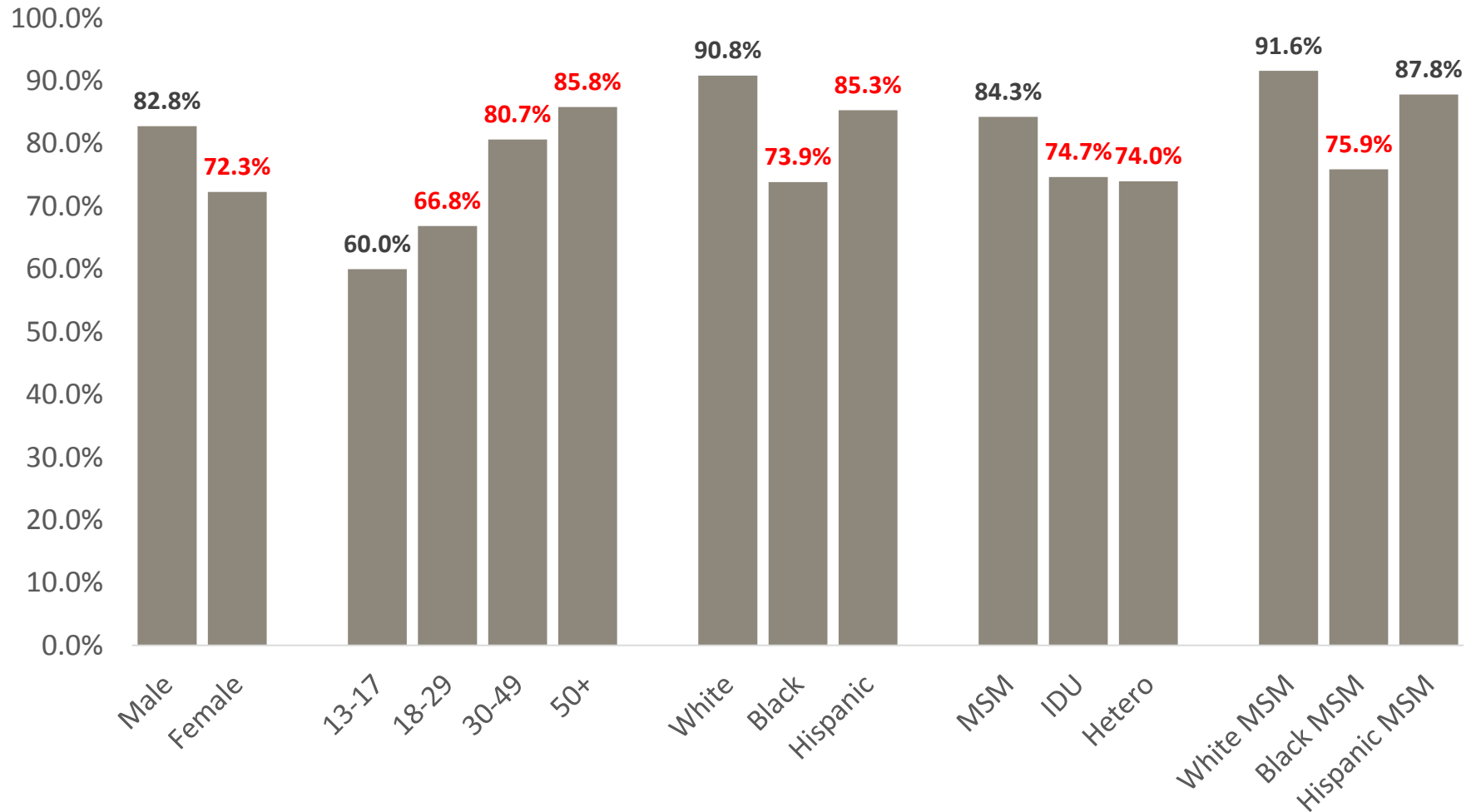
# Reasons for Interrupting Care MMP, Chicago, 2012



n=44, weighted n=2,408

# 2013 Viral Suppression Among Those in Care, Chicago, as of 12/14

**NHAS Goal: 85% of diagnosed PLWHA; 94% of those in care**





# Conclusions (1)

- Health department surveillance data offers the opportunity to understand the magnitude and characteristics of the local HIV epidemic as well factors associated risk of new infections, access to care and viral suppression
- We observe declines in new HIV diagnoses in many demographic subgroups but increases or little change in others. Further study is needed to understand why and interventions need to be designed or modified to reverse trends in select populations
- Local population estimates of MSM and injection drug users are needed to estimate rates of new diagnoses and monitor changes overtime to reach NHAS disparity targets
- Need to improve estimates of the percent of people unaware of their status, a key NHAS indicator

# Conclusions (2)

- Progress is observed across the HIV continuum of care
  - Linkage to care goals are close to being achieved but not at the same rate for certain populations (females, Blacks, IDU)
  - Identify and implement effective ways to ensure individuals are accessing and retained in care
  - Identify and implement effective ways to ensure viral suppression among those in care (females, 13-17 y.o., Black MSM, IDU)



# Thinking Spatially: GIS in HIV Research

**Christina Hayford, MS/MSP**

Third Coast CFAR Research Data Analyst

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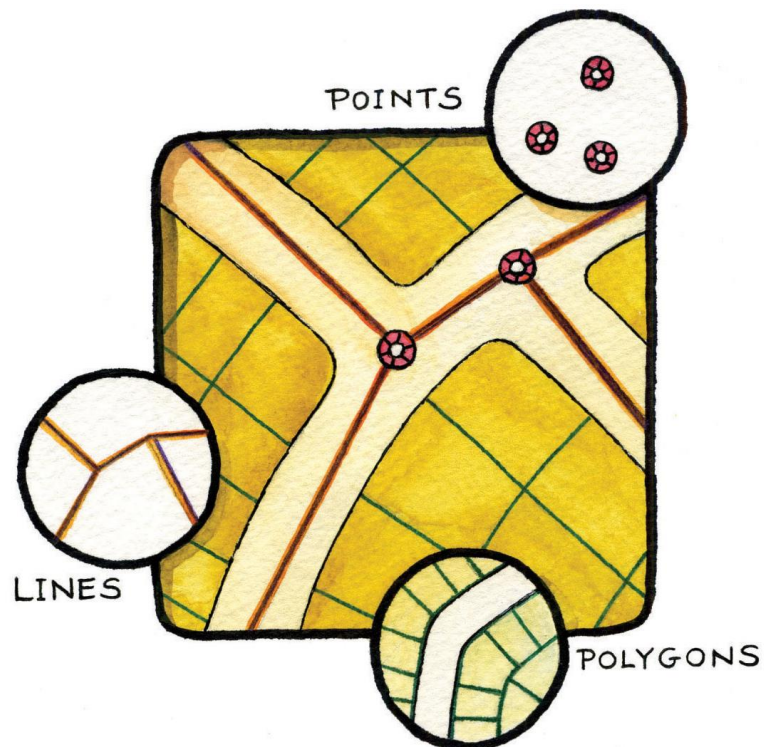
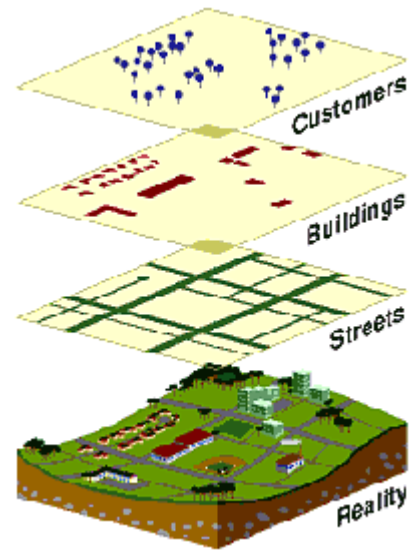
# What is GIS?

- Geographic Information Systems
- lets us visualize, question, analyze, and interpret data to understand relationships, patterns, and trends<sup>1</sup>
- ArcGIS by ESRI is the most common GIS software

<sup>1</sup>What is GIS (<http://www.esri.com/what-is-gis>)

# How it works

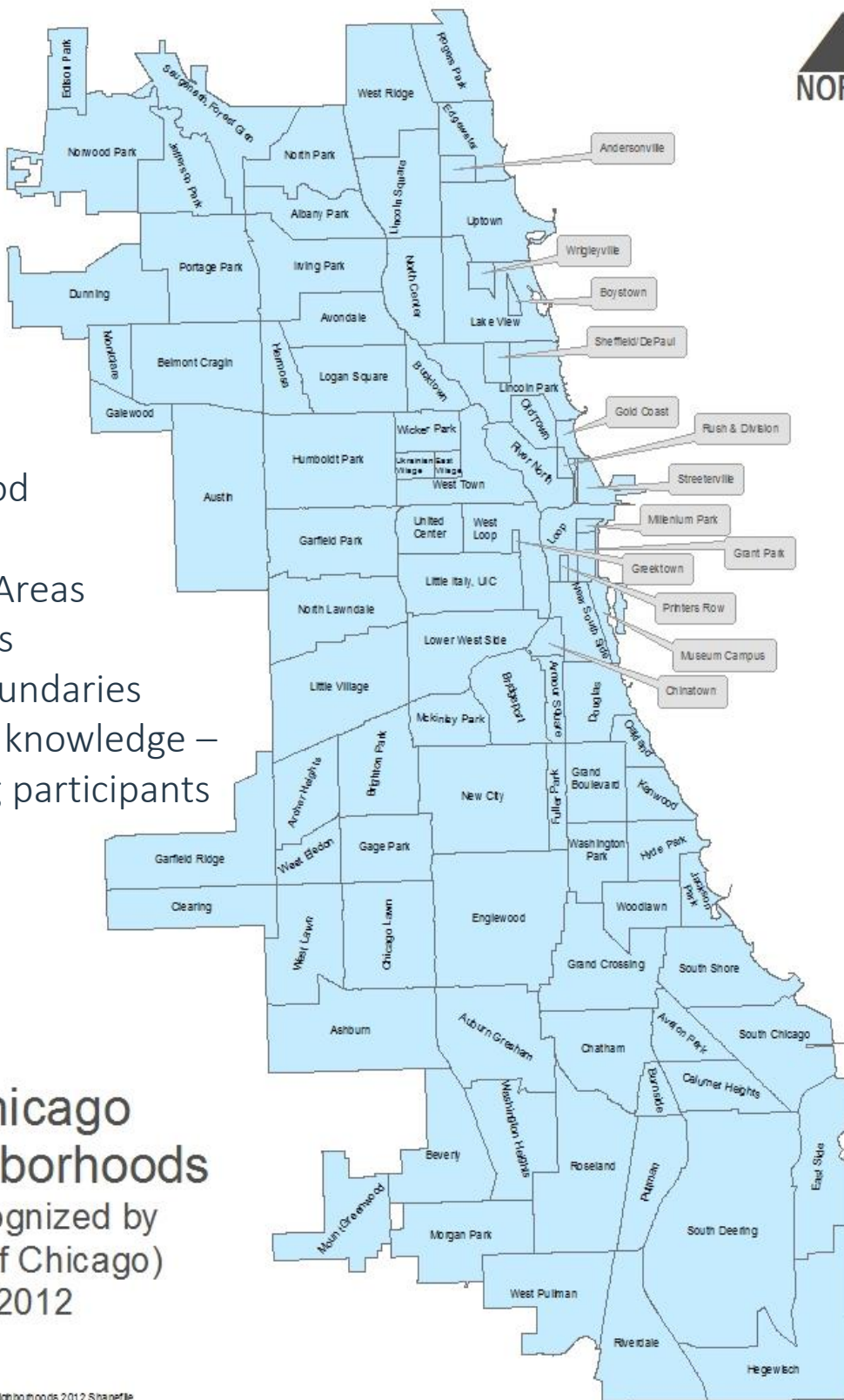
- Everything works in layers
- Shapefiles (geographical boundaries)
  - Points
    - Coordinate
      - Addresses
  - Lines
    - Linear
      - Streets
  - Polygons
    - Area
      - Chicago Community Areas



# Static Maps

## Descriptive Map

**Use:** References of geographic locations, or places.



## Examples:

- Neighborhood designations
- Community Areas
- Census Tracts
- Outreach boundaries
- Recruitment knowledge – areas lacking participants





Chicago  
Neighborhoods  
(Recognized by  
City of Chicago)  
2012



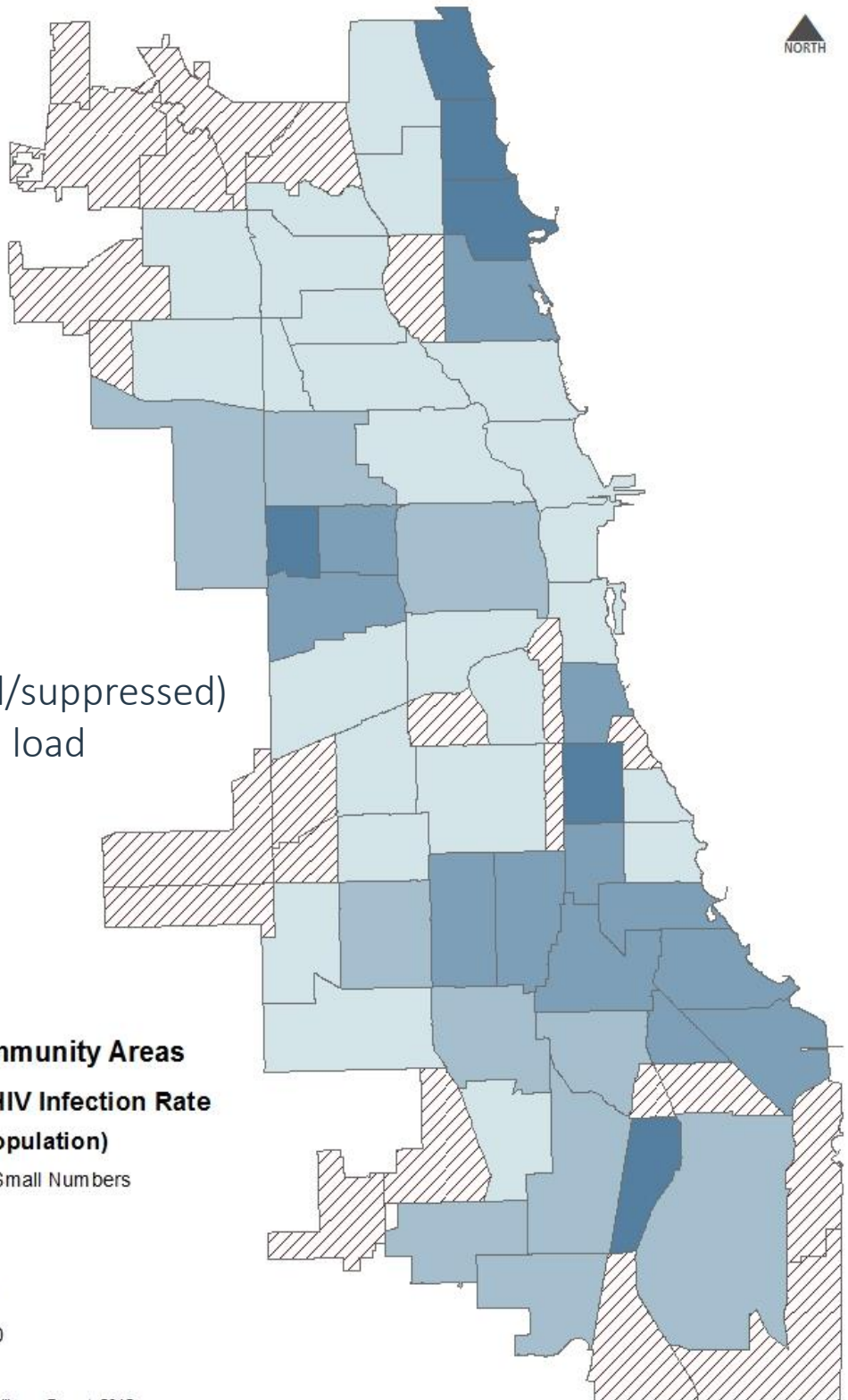
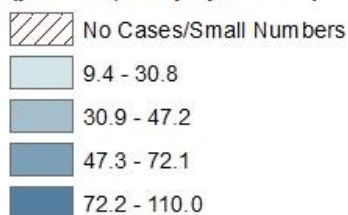
# Choropleth Map

**Use:** To depict geographic distribution using aggregate data

## Examples:

-  HIV infections
-  HIV prevalence
-  Care continuum  
(Linked/engaged/suppressed)
-  Community viral load

### Chicago Community Areas 2013-14 Avg HIV Infection Rate (per 100,000 population)



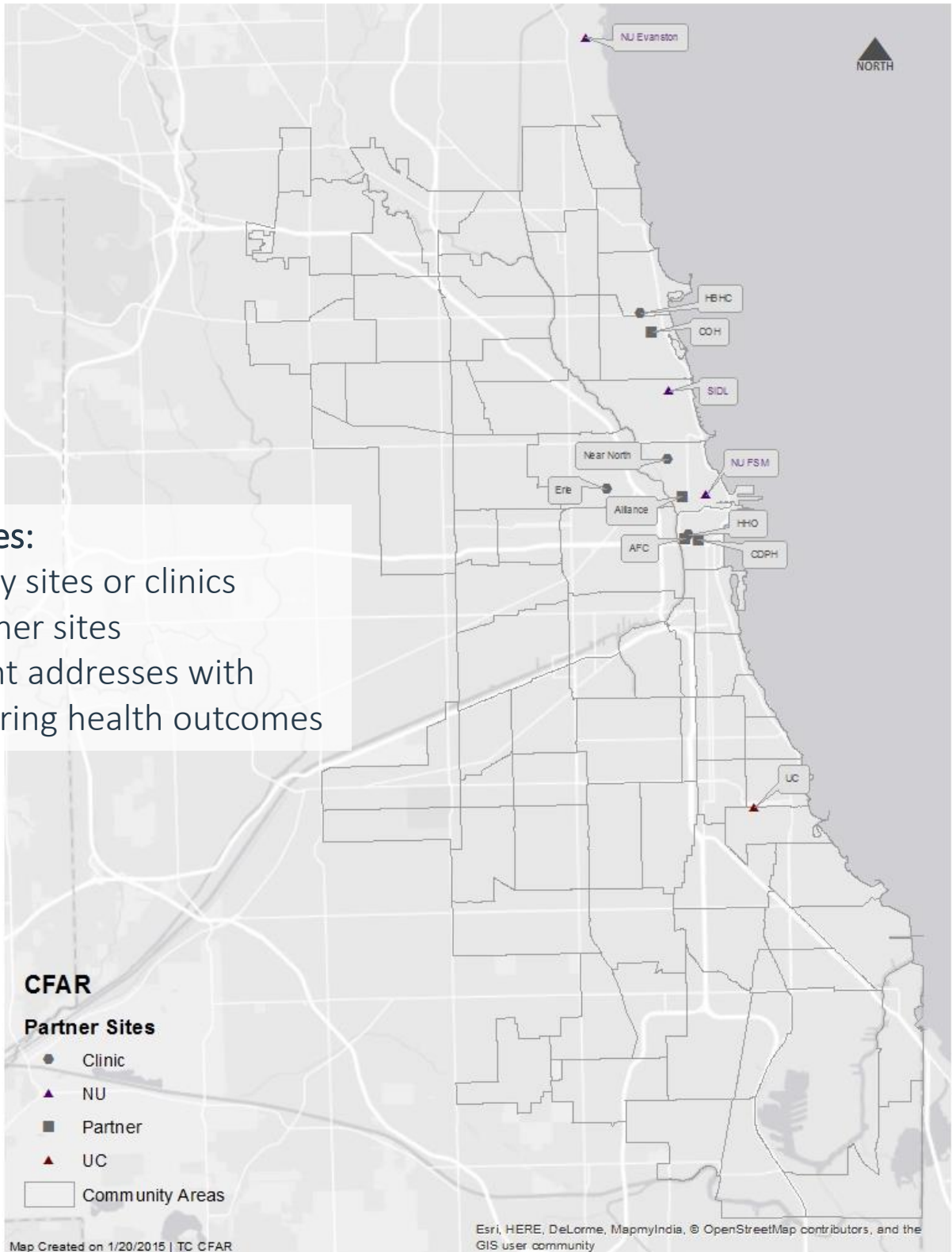


# Categorical Map

**Use:** To show data or places that are different in kind, rather than amount.

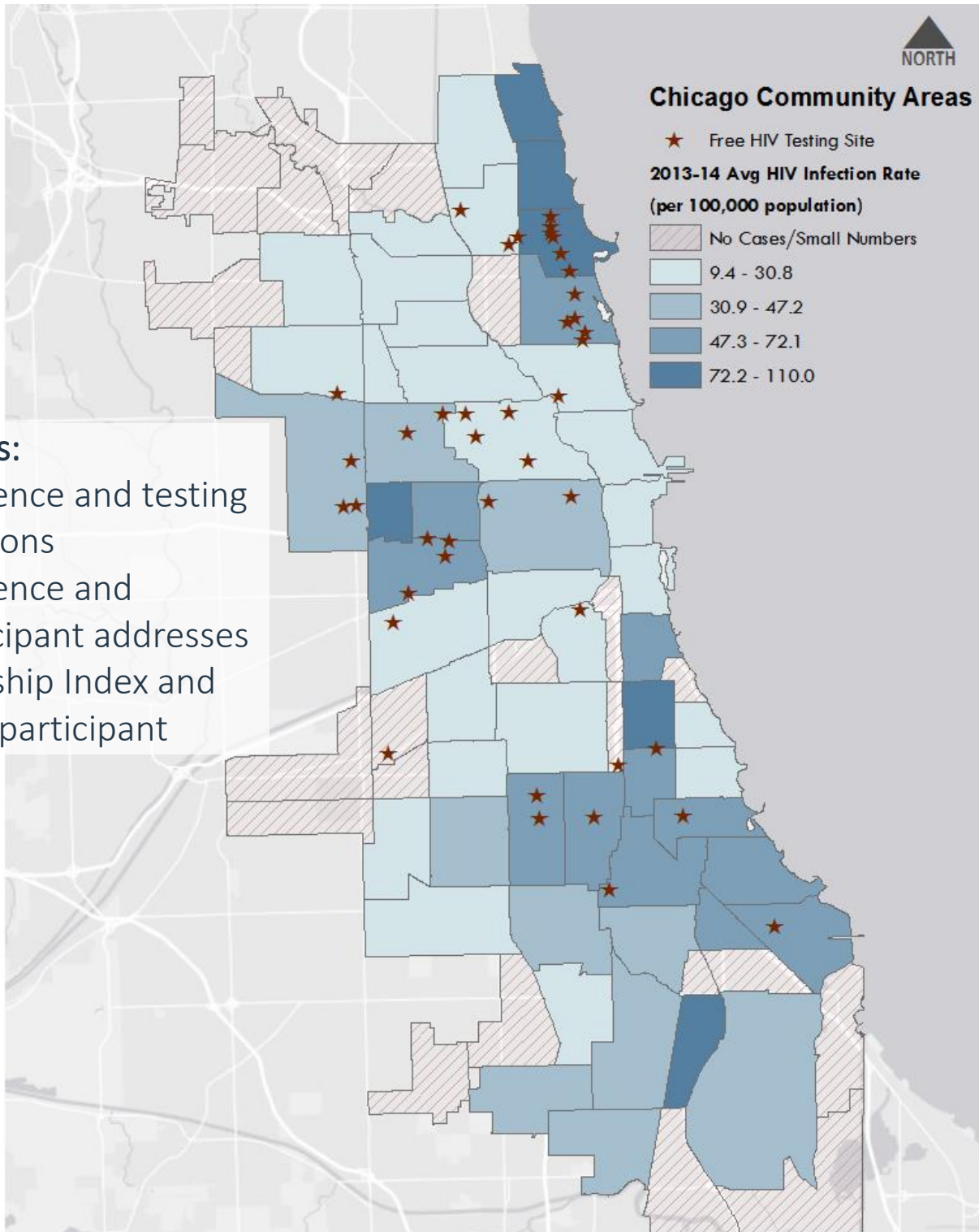
## Examples:

- 🚫 Study sites or clinics
- 🚫 Partner sites
- 🚫 Client addresses with differing health outcomes



# Combining Map Types

**Use:** To show **possible** relationships between two types of geographic data. Great for brainstorming new research questions and understanding resource allocations.



## Examples:

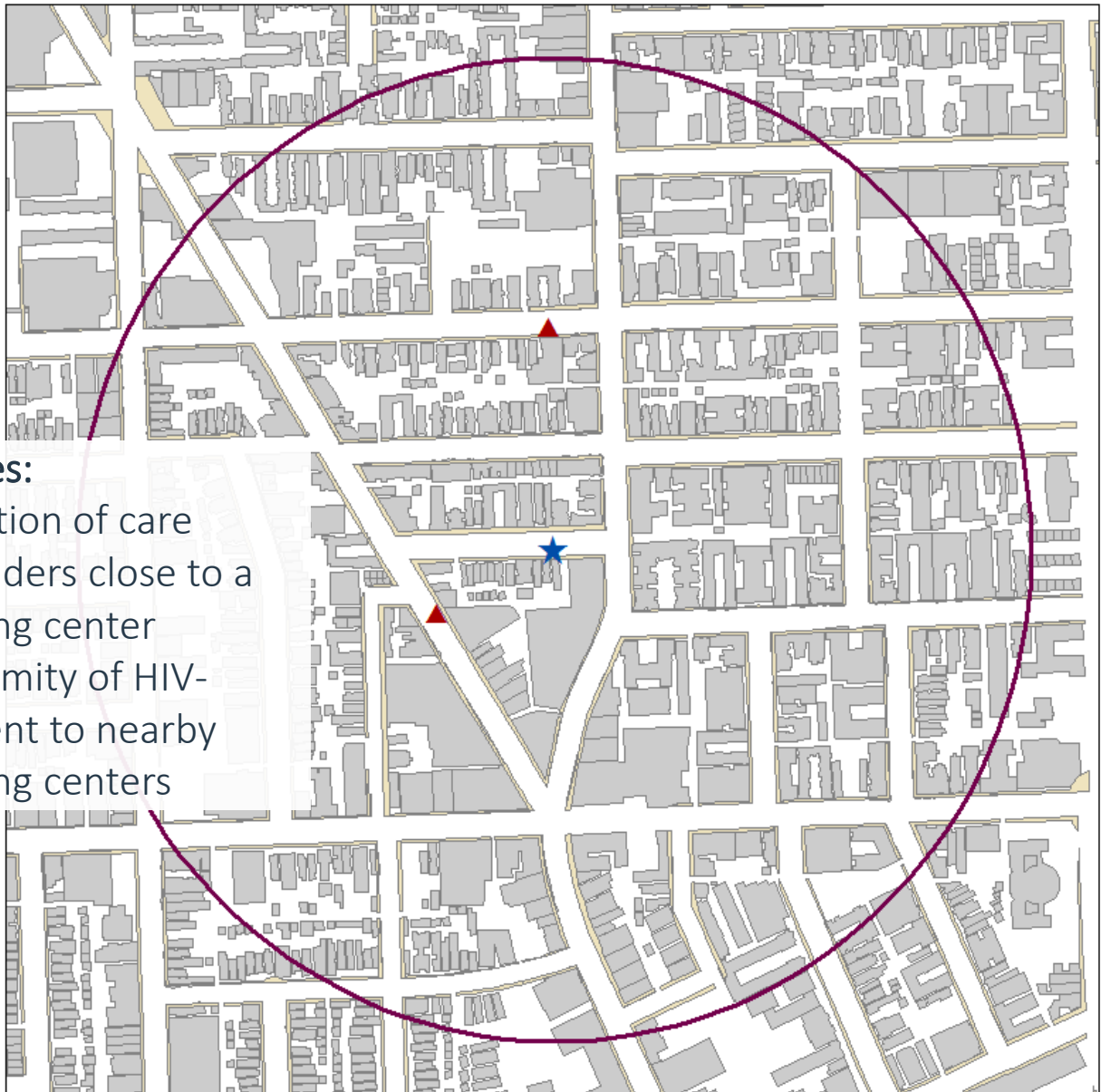
- 🚫 Incidence and testing locations
- 🚫 Incidence and participant addresses
- 🚫 Hardship Index and HIV+ participant

# Buffer Analysis

**Use:** To show data within a specific distance or time of a point. Often used at the individual-level in public health.



Free HIV Testing within 1/4 mile radius of Patient 1



## Examples:



Location of care providers close to a testing center



Proximity of HIV-patient to nearby testing centers

## Legend



Patient 1



Free HIV Testing Location



1/4 Mile Radius



Sidewalks

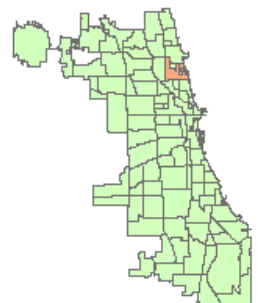


Buildings



Parks

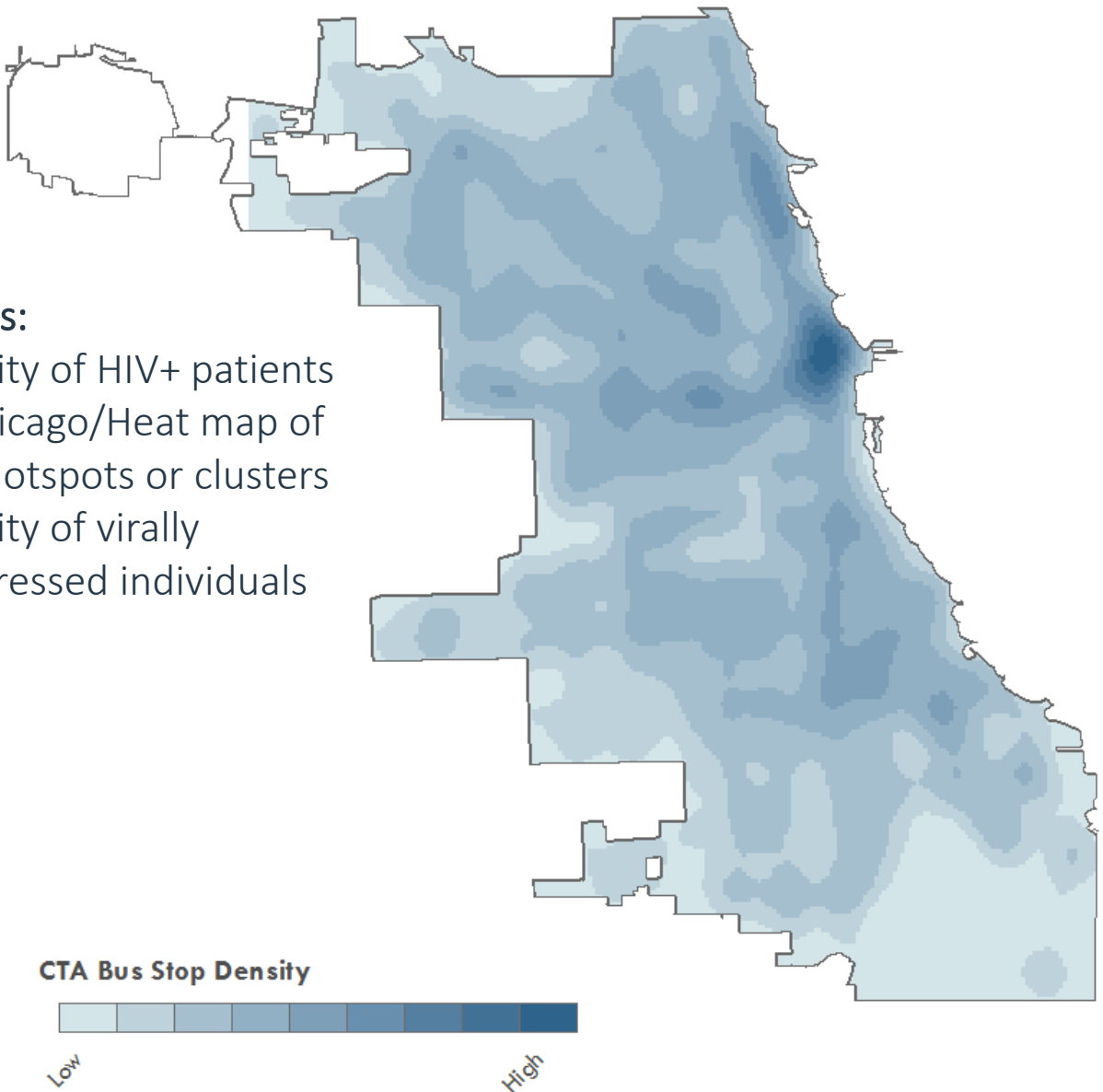
0 0.05 0.1 Miles





# Density Map

**Use:** To show high and low density areas of specific points.  
Also used for heat mapping, but need a lot of points or locations to be useful.

## Density of CTA Bus Stops in Chicago



### Examples:

-  Density of HIV+ patients in Chicago/Heat map of HIV hotspots or clusters
-  Density of virally suppressed individuals

# Interactive Maps

# Story Slider Map

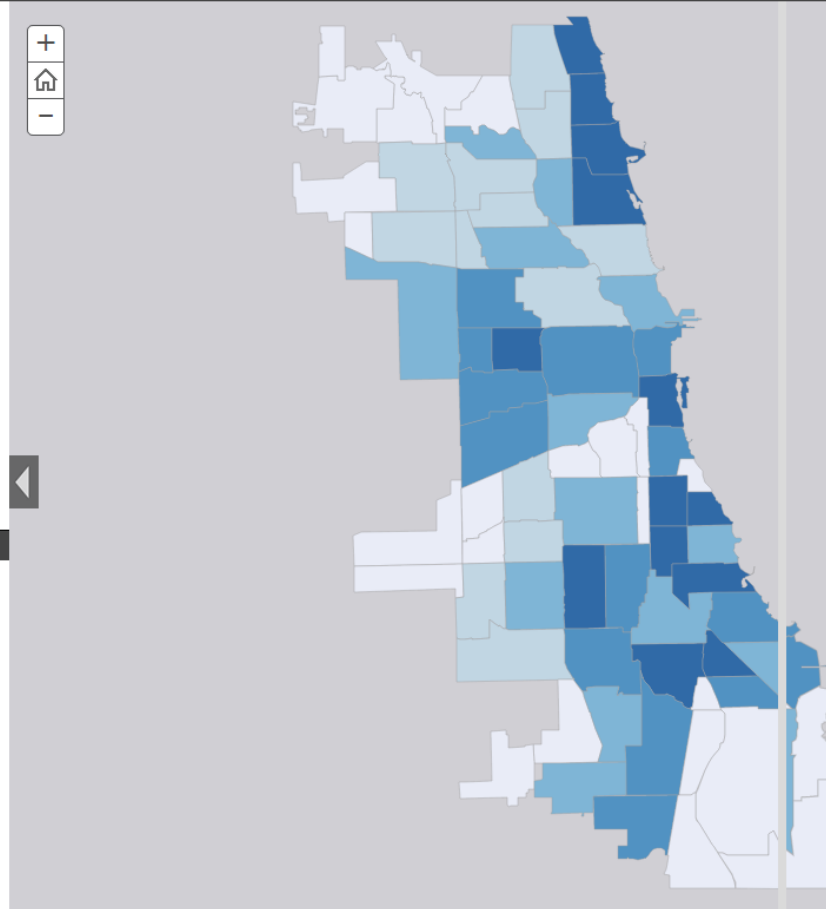
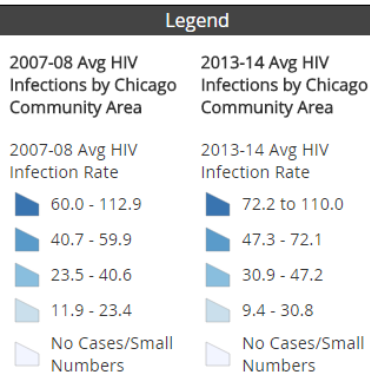
**Use:** Interactively show various types of maps across two different data points. Most common use is over two time points.

## Average HIV Infection Rates by Chicago Community Area, 2007-08 and 2013-14

Source: CDPH HIV/STI Surveillance Reports

Left Side Source: CDPH HIV/STI Surveillance Report, 2010

Right Side Source: CDPH HIV/STI Surveillance Report, 2015



<http://arcg.is/1rttfN3>

## Examples:



Incidence



Prevalence



HIV to Syphilis or other co-morbidities at the same time point

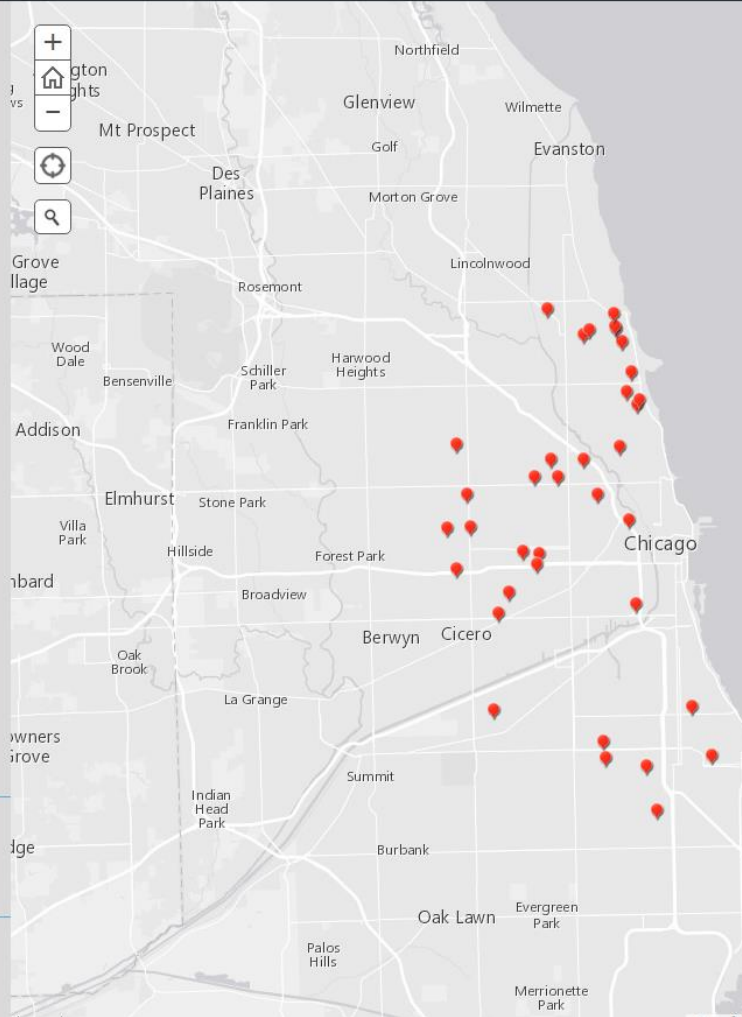
# Story Map Series

**Use:** Interactively allows you to present a series of related maps, videos, images and text in a story format.

## Free HIV Testing in Chicago

### 1 Free Rapid HIV Testing Centers in Chicago

Free Rapid HIV Testing Centers in Chicago according to the CDC Get Tested website.





### 2 Free Rapid HIV Blood Testing Centers in Chicago

### 3 Free Rapid HIV Oral Testing Centers in Chicago

<http://arcg.is/1PA6D6W>

## Examples:

-  Location of testing centers by type
-  HIV incidence and prevalence over time in Chicago

# Other GIS Services

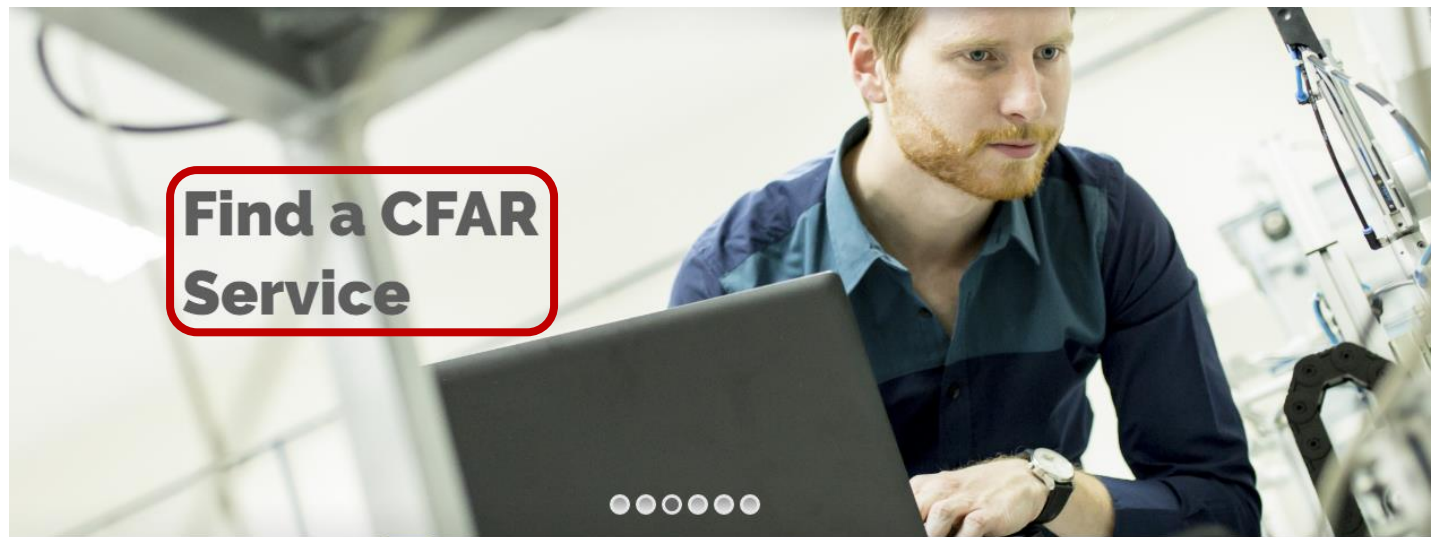
- ⌘ Time and distance from one point to another (Network Analyst)
- ⌘ Geocoding addresses for census tract or other geographic information
- ⌘ Spatial Statistics
  - ⌘ Moran's I Spatial Autocorrelation
  - ⌘ Nearest Neighbor Analysis
  - ⌘ Ordinary Least Squares Regression
- ⌘ Many others

Third Coast CFAR Map Gallery:  
[www.thirdcoastcfar.org/mapgallery/](http://www.thirdcoastcfar.org/mapgallery/)



# Interested in a GIS service?

Please use the Third Coast CFAR Service Request Form



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[RFA: Third Coast CFAR Pilot Award Competition](#)

## Events

JULY 2016



11  
JUL

SURVEILLANCE DATA: A TOOL FOR HIV RESEARCH  
CFAR WORKSHOP WITH CHICAGO DEPARTMENT OF HEALTH



# CDPH HIV Data Sources

**Stephanie Masiello Schuette**

Director of HIV/STI Surveillance, Epidemiology, and Research

[Stephanie.Schuette@cityofchicago.org](mailto:Stephanie.Schuette@cityofchicago.org)

# CDPH Data Sources

- 'Standard' Surveillance
- Research Projects
- Collaborations

# eHARS

- What?
  - Enhanced HIV/AIDS reporting system (national system)
- Where?
  - Housed/maintained by the CDC. Access limited by IDPH. Sovereign entity.
- Who?
  - All HIV positive individuals in Chicago (that have been reported); incidence and prevalence
- When?
  - At time of individual's diagnosis and subsequent care visits for which there are laboratory data

# eHARS

- How?
  - Medical Provider
    - CDPH = Case Report Form
    - IDPH = Laboratory Results
      - CDPH updates and input

The screenshot displays the HIV/AIDS Reporting System v4.8.1 (MJ-P&S) interface. The top navigation bar includes the user name 'User: Stephanie Schuette', the system title 'HIV/AIDS REPORTING SYSTEM v4.8.1 (MJ-P&S)', and links for 'CONTACT US', 'HELP', and 'LOGOFF'. Below the navigation bar, there are two tabs: 'DOCUMENT' and 'ADMIN'. The 'DOCUMENT' tab is active, showing a 'Documents and Forms Search' section. On the left, there are buttons for 'Search a Document' and 'Add a Person'. The main search area contains a 'SWITCH TO FUZZY SEARCH' link and a 'Search' button. The search form includes various fields with dropdown menus and text inputs, such as 'Date of Birth', 'Last Name', 'Middle Name', 'First Name', 'Last Name Soundex', 'ID', 'Document UID', 'PHARD UID', 'Street Address', 'City', 'State', 'County', 'Zip Code', 'Sex', 'Race', 'Ethnicity', 'Date of Death', 'Vital Status', 'Lab Accession Number', 'Sample ID (Specimen)', 'STARS ID', 'Local Field', 'Diagnosis', 'Primary Record Owner Jurisdiction', and 'Assignment Type'.

# Can I have eHARS data?

- It depends
- *No* = As a researcher, highly unlikely to receive direct access to eHARS or direct access to our eHARS SAS output files
- *Yes* = You can receive detailed eHARS data in an excel file format, but will need ROIs

# eHARS Notes

- There is a lag:
  - Enhanced HIV/AIDS Reporting System (eHARS) is constantly being updated
- The data you are seeing today were up to date as of 12/28/2015

# Research Projects

- Medical Monitoring Project
- National HIV Behavioral Surveillance Project



# Medical Monitoring Project (MMP)

- Two part research project, funded by CDC
  - Survey
  - Medical Record Abstraction
- Understand continuum values for those in-care and out-of-care
- Identify unmet medical and service needs in HIV positive individuals

# Can I have MMP data?

- It depends
- *No* = Unlikely to receive direct access to participant files
- *Yes* = You can receive summary tables of participant information

# National HIV Behavioral Surveillance Project (NHBS)

- CDC funded survey based project that cycles through 3 risk populations
  - Men who identify as having sex with men (MSM)
  - Injection drug users (IDU)
  - Heterosexuals (HET)
- Survey and free HIV testing
- Venue-based and Respondent Driven Sampling (RDS)

# Can I have NHBS data?

Most likely - due to the anonymous sampling!

- *Yes* = You can receive summary tables of participant information AND line listings with personal information removed

# Data Combos

- Matched datasets between projects
  - MMP, eHARS, NHBS, Testing, HOPWA, STI, etc.
- MAPS!
- Matched datasets between bureaus
  - Co-morbidities

# But why can't we have access to all your data?

- Medical Health Provider – HIPAA
- CDC funded agency – Security and Confidentiality Guidelines

# Protected Health Information (PHI)

- The HIPAA Privacy Rule protects most “individually identifiable health information” held or transmitted by a covered entity or its business associate, in any form or medium, whether electronic, on paper, or oral. The Privacy Rule calls this information *protected health information* (PHI). Protected health information is information, including demographic information, which relates to:
  - the individual’s past, present, or future physical or mental health or condition,
  - the provision of health care to the individual, or
  - the past, present, or future payment for the provision of health care to the individual, and that identifies the individual or for which there is a reasonable basis to believe can be used to identify the individual. Protected health information includes many common identifiers (e.g., name, address, birth date, Social Security Number) when they can be associated with the health information listed above.
- Examples of PHI : a medical record, laboratory report, or hospital bill (because each document would contain a patient’s name and/or other identifying information associated with the health data content)
- Example of not PHI: a health plan report that only noted the average age of health plan members was 45 years (because that information, although developed by aggregating information from individual plan member records, does not identify any individual plan members)
- Basic question to ask yourself: Could you identify someone from the information?

# Data Use Agreement

- PHI or Not
- May need ROIs or IRB approval



## DEPARTMENT OF PUBLIC HEALTH CITY OF CHICAGO

### DATA USE AGREEMENT

This **Data Use Agreement ("Agreement")** is made and entered into effective as of the latest date signed herein below ("Effective Date") by and between the City of Chicago ("City"), an Illinois municipal corporation, by and through its Chicago Department of Public Health [CDPH] HIV/STI Bureau ("Data Department"), and CORE Center ("Data Recipient"), to provide for a sharing of data.

Except as otherwise defined herein, the terms below that are capitalized and in bold have the same meanings as set forth in the Health Insurance Portability and Accountability Act of 1996, the Health Information Technology for Economic and Clinical Health Act, which is part of the American Recovery and Reinvestment Act of 2009, and the regulations promulgated thereunder, including the privacy, security, breach, omnibus, and enforcement rules, as each may be amended from time to time (collectively, "HIPAA"). See 45 CFR parts 160 and 164.

Specifically, the following terms used shall have the same meaning as in HIPAA: **Data Use Agreement, Limited Data Set, Protected Health Information**. The term "**Breach**" has the meaning as set forth in HIPAA when capitalized below, but has the ordinary dictionary meaning when not capitalized below.

This Agreement certifies that the following limited data sets as defined in the attached Schedule A of this agreement may be released from CDPH by and through the HIV/STI Bureau to the Data Recipient for the express limited activities and purposes as defined in the attached Schedule B of this agreement.



# Bonus!

# INDICATORS AT-A-GLANCE



INDICATOR 1 Increase the percentage of people living with HIV who know their serostatus to at least **90 percent**.

---



INDICATOR 2 Reduce the number of new diagnoses by at least **25 percent**.

---



INDICATOR 3 Reduce the percentage of young gay and bisexual men who have engaged in HIV-risk behaviors by at least **10 percent**.

---



INDICATOR 4 Increase the percentage of newly diagnosed persons linked to HIV medical care within one month of their HIV diagnosis to at least **85 percent**.

---



INDICATOR 5 Increase the percentage of persons with diagnosed HIV infection who are retained in HIV medical care to at least **90 percent**.

---



INDICATOR 6 Increase the percentage of persons with diagnosed HIV infection who are virally suppressed to at least **80 percent**.

---



INDICATOR 7 Reduce the percentage of persons in HIV medical care who are homeless to no more than **5 percent**.

---



INDICATOR 8 Reduce the death rate among persons with diagnosed HIV infection by at least **33 percent**.

---



INDICATOR 9 Reduce disparities in the rate of new diagnoses by at least **15 percent** in the following groups: gay and bisexual men, young Black gay and bisexual men, Black females, and persons living in the Southern United States.

---



INDICATOR 10 Increase the percentage of youth and persons who inject drugs with diagnosed HIV infection who are virally suppressed to at least **80 percent**.

---



INDICATOR 1 Increase the percentage of people living with HIV who know their serostatus to at least **90 percent**.

---

- \*\*\*Crude Estimate\*\*\*
- Use CDC's IL estimate that 84% of people with HIV infection are diagnosed:  
Estimate: 35,700 HIV infections in EMA  
30,000 diagnosed  
5,700 undiagnosed
- Increase of 6% (2,143 individuals diagnosed) needed to reach 90% goal



- EMA New HIV Diagnoses 2010-2014 = 1,441
  - 25% reduction = 360 new diagnoses EMA New HIV Diagnoses in 2014 = 1,370
  - 25% reduction = 342 new diagnoses

Estimated need = ~ 350 less new diagnoses between 2014 and 2020.



**INDICATOR 3** Reduce the percentage of young gay and bisexual men who have engaged in HIV-risk behaviors by at least **10 percent**.

- From NHBS MSM4 cycle:

52% of participants stated they did not use a condom

39% of participants stated use of alcohol and 3% of participants stated use of drugs during sex

18% of participants had not been tested for HIV in the past 2 years



INDICATOR 4 Increase the percentage of newly diagnosed persons linked to HIV medical care within one month of their HIV diagnosis to at least **85 percent**.

---

Currently:

- 82% of those newly diagnosed are linked into care within 3 months
- 85% of those newly diagnosed are linked into care within 6 months



---

INDICATOR 5 Increase the percentage of persons with diagnosed HIV infection who are retained in HIV medical care to at least **90 percent**.

---

- Currently, 43% of those diagnosed are retained in care
- If we look at current numbers, we would have needed 13,220 more individuals retained to reach the 90% goal



#### INDICATOR 6

Increase the percentage of persons with diagnosed HIV infection who are virally suppressed to at least **80 percent**.

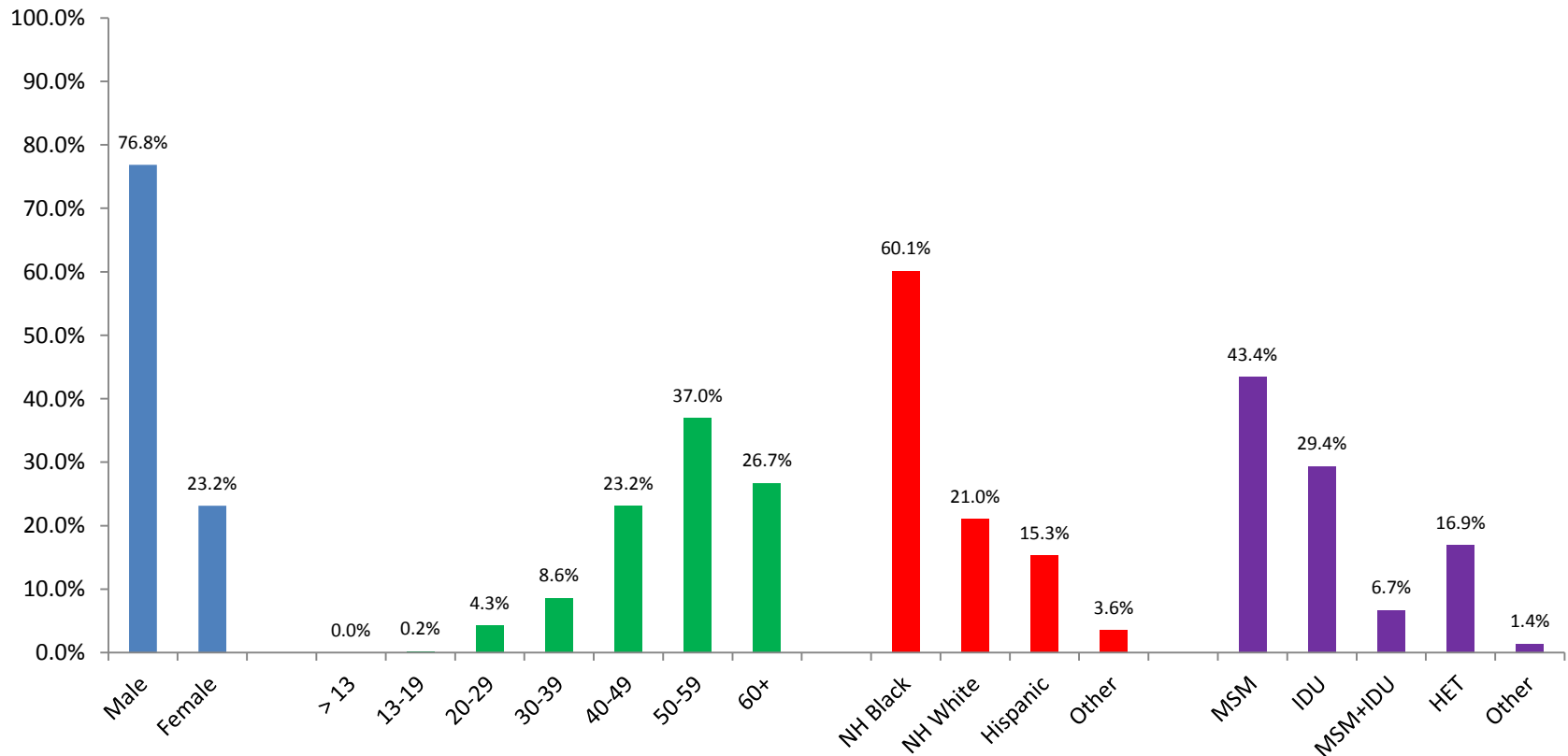
- Currently, 45% of those diagnosed are virally suppressed
- If we look at current numbers, we would have needed 9,976 more individuals suppressed to reach the 80% goal





**INDICATOR 8** Reduce the death rate among persons with diagnosed HIV infection by at least **33 percent**.

- 1.4% of people living with HIV infection in 2013 died





#### INDICATOR 9

Reduce disparities in the rate of new diagnoses by at least **15 percent** in the following groups: gay and bisexual men, young Black gay and bisexual men, Black females, and persons living in the Southern United States.

- MSM 2014 =
  - 40x more diagnoses than IDU males
  - 18x more diagnoses than Heterosexual males
- ≤ 29 yrs Black MSM 2014 =
  - 3.5x more diagnoses than same age White MSM
  - 3x more diagnoses than same age Hispanic MSM
- Black Females 2014 =
  - 7x more diagnoses than White and 5x more diagnoses than Hispanic females, respectively



INDICATOR **10** Increase the percentage of youth and persons who inject drugs with diagnosed HIV infection who are virally suppressed to at least **80 percent**.

- Currently, 38% of youth (13-24 yrs) and 40% IDU are virally suppressed
- If we look at current numbers, we would have needed 599 more young individuals and 1,394 IDU virally suppressed to reach the 80% goal

# Take-aways

- CDPH collects HIV data pertaining to the ‘how many’ but also the ‘why’
- Data security is of the utmost importance
- You will always be asked to sign a data use agreement
- CDPH has lofty goals for reaching 2020 indicators, but we believe it is achievable

# Thank you & Questions?



## Thanks to:

### **HIV/STI SER data team**

Irina Tabidze

Margaret Eaglin

Jeff Lauritsen

Monique Millington

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