Understanding the HIV Epidemic in Your Community

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Emory University
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• I have the following financial relationships to disclose:
  • Research and Programmatic Grants to Emory University:
    • NIH
    • CDC
    • MAC AIDS Fund
    • Gilead Sciences
• I will not address off label use or investigational use in my presentation
1. Learners should be better able to name and describe one online mapping resource that describes the impact of HIV within US cities.

2. Learners should be able to demonstrate how online mapping resources can be used to identify priority areas for HIV testing and prevention.
“Surveillance is the conscience of the epidemic” - James Curran

AIDSVu is a compilation of interactive, online maps that allows users to visually explore the HIV epidemic in the U.S. alongside critical resources such as HIV testing and treatment center locations.

AIDSVu’s mission is to make HIV prevalence data widely accessible and locally relevant.

AIDSVu provides users with an intuitive, visual way to connect with complex information about persons living with an HIV diagnosis at national, state and local levels.
**Historical Context**

- **2010-2012**
  - 2011 updates:
    - 12 cities with Zip Code level data
    - County-level data
    - Testing locator
  - 2012 updates:
    - 15 cities
    - Census tract data (2 cities)
    - Treatment locator
    - Social determinants of health

- **2013**
  - Updates:
    - 20 cities
    - New diagnosis & transmission category
    - HIV Continuum
    - White House National HIV/AIDS Strategy Report

- **2014**
  - Updates:
    - 33 cities
    - Neighborhood data (2 cities)
    - Census tract data (3 cities)
    - City evaluations (2 cities)
    - 17 city profiles

- **2015**
  - Updates:
    - 34 cities
    - Neighborhood data (2 cities)
    - Census tract data (3 cities)
    - 29 enhanced city profiles
    - Population Profile Pages
    - Redesigned interface

- **2016**
  - Updates:
    - 38-40 cities
    - ZIP Code new diagnoses
    - State-level mortality
    - 2-way stratification at state level
    - Neighborhood data (2 cities)
    - Census tract data (3 cities)
    - 35 enhanced city profiles

Coming June 2016
National, State, and Local Map

- Persons living with an HIV diagnosis by state, county, ZIP Code, census tract, and neighborhood
- Persons newly diagnosed with HIV by state and county, year-by-year
- Social determinants of health (e.g., poverty, insurance, education)
- HIV transmission modes

Service Locators

- HIV testing and treatment center locations
- NIH-funded HIV Prevention, Vaccine & Treatment Trials Sites
- Housing Opportunities for People with AIDS
HIV Testing Site Locator

- CDC National Prevention Information Network
- Search by ZIP code or city & state

HIV Treatment Site Locator

- Ryan White HIV/AIDS Medical Care Providers
- Search by ZIP code or city & state

Downloadable Resources

- Slide decks with high-resolution maps
- Data sets
• Prevent new HIV infections
• Improve linkage to prevention, care and treatment
• Reduce HIV-related health disparities
### National HIV/AIDS Strategy Indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Increase the percentage of people living with HIV who know their serostatus to at least <strong>90 percent</strong>.</td>
</tr>
<tr>
<td>2</td>
<td>Reduce the number of new diagnoses by at least <strong>25 percent</strong>.</td>
</tr>
<tr>
<td>3</td>
<td>Reduce the percentage of young gay and bisexual men who have engaged in HIV-risk behaviors by at least <strong>10 percent</strong>.</td>
</tr>
<tr>
<td>4</td>
<td>Increase the percentage of newly diagnosed persons linked to HIV medical care within one month of their HIV diagnosis to at least <strong>85 percent</strong>.</td>
</tr>
<tr>
<td>5</td>
<td>Increase the percentage of persons with diagnosed HIV infection who are retained in HIV medical care to at least <strong>90 percent</strong>.</td>
</tr>
<tr>
<td>6</td>
<td>Increase the percentage of persons with diagnosed HIV infection who are virally suppressed to at least <strong>80 percent</strong>.</td>
</tr>
<tr>
<td>7</td>
<td>Reduce the percentage of persons in HIV medical care who are homeless to no more than <strong>5 percent</strong>.</td>
</tr>
<tr>
<td>8</td>
<td>Reduce the death rate among persons with diagnosed HIV infection by at least <strong>33 percent</strong>.</td>
</tr>
<tr>
<td>9</td>
<td>Reduce disparities in the rate of new diagnoses by at least <strong>15 percent</strong> in the following groups: gay and bisexual men, young Black gay and bisexual men, Black females, and persons living in the Southern United States.</td>
</tr>
<tr>
<td>10</td>
<td>Increase the percentage of youth and persons who inject drugs with diagnosed HIV infection who are virally suppressed to at least <strong>80 percent</strong>.</td>
</tr>
</tbody>
</table>
You want to help a provider understand why she should consider routinely screening for HIV in her practice. Which epidemiologic measure would be best?

A. HIV Incidence in the area
B. HIV Prevalence Rate in the area
C. HIV Case Count in the area
• View results in your browser: https://api.cvent.com/polling/v1/api/polls/sp3s77tq
Rates of Persons Living with an HIV Diagnosis, by County, Georgia, 2012

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: CDC

* Data are not shown to protect privacy. ** State health department requested not to release data.
Prevalence of Persons Living with HIV, 4 Georgia Counties, 2010

Rate of HIV per 100,000 population

Georgia County

- Baker
- Clay
- Dekalb
- Fulton

Persons living with HIV/100,000
Prevalence and case counts of people living with HIV in 4 Georgia Counties, 2010

<table>
<thead>
<tr>
<th>County</th>
<th>Number of people living with HIV</th>
<th>Rate of people living with HIV/100,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baker</td>
<td>38</td>
<td></td>
</tr>
<tr>
<td>Clay</td>
<td>22</td>
<td></td>
</tr>
<tr>
<td>Dekalb</td>
<td>6171</td>
<td></td>
</tr>
<tr>
<td>Fulton</td>
<td>9703</td>
<td></td>
</tr>
</tbody>
</table>

Number of people living with HIV

Rate of people living with HIV/100,000
Counts and rates

• Use RATES:
  • To talk about concentration of infection/likelihood of undiagnosed cases
  • To talk about risk of new infections
  • To compare the impact of the epidemic in different groups (men vs women, by race, by age)

• Use COUNTS
  • To talk about service needs
  • To estimate future costs
• AIDSVu Web Tour
The areas within cities that have problems with late HIV diagnosis are the same areas that have problems with retention in care and low rates viral suppression

A. True
B. False
• View results in your browser: https://api.cvent.com/polling/v1/api/polls/spu6zif0
POWERED BY AIDSVu:
HIVContinuum

MAPPING THE HIV CARE CONTINUUM

A new way to identify places where we can improve HIV testing, care, and treatment.

NEW HIV DIAGNOSIS - LATE HIV DIAGNOSIS - LINKED TO HIV CARE - ENGAGED IN HIV CARE - SUPPRESSED HIV VIRAL LOAD

WASHINGTON, D.C.
VIEW THE MAP
VIEW THE CHART

PHILADELPHIA, PA
VIEW THE MAP
VIEW THE CHART

ATLANTA, GA
VIEW THE MAP
VIEW THE CHART

CONNECT WITH US
Which of the following is true about black/white disparities in HIV in the United States?

A. Black Americans are more impacted than white Americans, and the extent of the disparity is about the same in rural and urban areas.

B. Black Americans are more impacted than white Americans, and the extent of the disparity is greater in rural than urban areas.

C. Black Americans are more impacted than white Americans, and the extent of the disparity is lower in rural and urban areas.

D. Black and white Americans are equally impacted by HIV
• View results in your browser: https://api.cvent.com/polling/v1/api/polls/sp-vqm7ph
Connecting Race and Place: A County-Level Analysis of White, Black, and Hispanic HIV Prevalence, Poverty, and Level of Urbanization

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Contributors

All authors contributed to the interpretation of findings and to the writing of the report. A. S. Vaughan and E. Rosenberg performed the analysis. A. S. Vaughan and P. S. Sullivan conceptualized the analysis. A. S. Vaughan wrote the first and final drafts.

Peer Reviewed

Source: Vaughan AS. AJPH 2014: 104 (7):e77-e84
Defining Urbanicity

Data Source: CDC, NCHS Urban-Rural Classification Scheme for Counties, www.cdc.gov/nchs/data_access/urban_rural.htm

2006 NCHS Urban-Rural Code
- Large Central Metro
- Large Fringe Metro
- Medium Metro
- Small Metro
- Micropolitan
- Noncore

AIDSVu.org
County-level HIV Prevalence and Prevalence Ratios, United States, 2009

- Black/White PRR
- Hispanic/White PRR
- White Rate (per 100,000)
- Black Rate (per 100,000)
- Hispanic Rate (per 100,000)
Adjusted Black-White Disparities

- 10% Poverty
- 20% Poverty
- 30% Poverty

PRR (Ref = White)

Large central metro | Large fringe metro | Medium metro | Small metro | Micropolitan | Noncore
Spatial accessibility of HIV providers

Sharoda Dasgupta, PhD
Measures of spatial accessibility

1. Density of available providers within 5 mile driving radius

2. Commute time to the nearest (distance) provider by mode of transit
   • Car
   • Public transit
Distance to the nearest provider (miles)

50% all Atlanta HIV cases within 3.7 miles of nearest HIV provider

Commute time from each census tract to the nearest HIV provider (in minutes)

Summary of study results

• Most PLWH in Atlanta are within 4 miles of the nearest HIV provider, but nearest ≠ the best option (sometimes it is)

• Poor spatial accessibility observed in urban south Atlanta
  – Density of available clinics
  – Longer commute times by public transit

• Overlap with areas in urban south Atlanta with:
  – High HIV prevalence
  – Low car ownership
  – High poverty
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