Webcast 2.1


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Overview

• HIV data sources: national, state, and local
• Data interpretation (i.e. pulling it all together)
  o Placing the data into context
  o Developing local epidemiologic profiles
• Dissemination mechanisms and strategies
Population versus Individual Risk

Your jurisdiction’s population
Population versus Individual Risk

Your jurisdiction’s population

Population at high-risk for HIV
Population versus Individual Risk

Your jurisdiction’s population

Population at high-risk for HIV

Individuals at high-risk for HIV
Key Data Sources

- Centers for Disease Control and Prevention (CDC)
- Kaiser Family Foundation
- State and local data sources
- AIDSVu.org
- HIVContinuum.org
CDC HIV/AIDS Surveillance Systems, Reports, and Tools

- HIV Case Surveillance
- HIV Incidence Surveillance
- Medical Monitoring Project
- National HIV Behavioral Surveillance
- State Progress Reports
- NCHHSTP Atlas

More about CDC surveillance systems and reports at http://www.cdc.gov/hiv/statistics
HIV Case Surveillance

- CDC’S National HIV Surveillance System is the primary source for monitoring HIV trends in the U.S.
- HIV cases reported through HARS (HIV AIDS Reporting System)
- Data updated based on events (e.g., new address, progression to AIDS, new opportunistic infection, death)
- More recently HARS includes CD4 and viral load data to assess HIV care continuum measures
Estimated Rate of New HIV Infections, 2010

Estimated New HIV Infections, 2010, by Transmission Category

- 63% MSM
- 25% Heterosexual
- 8% IDU
- 3% MSM-IDU

Estimated New HIV Infections, 2010, for the Most-affected Sub-populations

Rates of Diagnoses of HIV Infection among Adults and Adolescents, 2011—United States and 6 Dependent Areas

N = 50,007  Total Rate = 19.1

American Samoa  0.0
Guam  0.0
Northern Mariana Islands  5.3
Puerto Rico  28.6
Republic of Palau  0.0
U.S. Virgin Islands  39.5

Rates per 100,000 population
- <10.0
- 10.0 - 19.9
- 20.0 - 29.9
- ≥30.0

Note: Data include persons with a diagnosis of HIV infection regardless of stage of disease at diagnosis. All displayed data have been statistically adjusted to account for reporting delays, but not for incomplete reporting.
HIV Incidence Surveillance

• Select surveillance programs conduct incidence surveillance in conjunction with routine case surveillance

• Additional data elements collected include:
  o Testing and antiretroviral use history
  o Results from additional testing of remnant diagnostic HIV-positive blood specimens

• Detuned ELISA used to assess for recent infection (within the last 180 days), as opposed to “long-standing” infection

• Incidence data, along with case surveillance data, extrapolated to general population to estimate incidence; modeling used to assess incidence rates for specific populations
Medical Monitoring Project

• National population-based surveillance system that collects information on clinical outcomes and behaviors of HIV-infected persons receiving care in the U.S.
• Information gathered through interviews with persons living with HIV and in care and abstraction of medical records

<table>
<thead>
<tr>
<th>Jurisdiction-level data</th>
<th>Healthcare facility-level data</th>
<th>Individual-level data</th>
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</thead>
<tbody>
<tr>
<td>• 23 state, territorial, and local jurisdictions representing 80% of HIV/AIDS case</td>
<td>• 25-50 healthcare facilities sampled every 2 years from each jurisdiction</td>
<td>• 400 persons with HIV sampled/surveyed each year from each jurisdiction</td>
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National HIV Behavioral Surveillance System (NHBS)

- System for conducting behavioral surveillance among persons at highest risk for HIV infection in the U.S.
- Risk, testing, and prevention behaviors assessed via community-based survey
- Population surveyed rotates by year: MSM, IDU, HET
- Conducted in 20 jurisdictions with high AIDS prevalence
- In many settings, blinded HIV (and hepatitis C) screening also implemented, allowing assessments of undiagnosed HIV infection
Example: Denver NHBS Report
CDC State HIV Prevention Progress Reports

Figure 1. HIV testing (ever): persons aged 18-65 years, by state, 2011

Figure 2. HIV testing (never): persons aged 18-65 years, by state, 2011

http://www.cdc.gov/hiv/policies/progressreports/spr.html
Kaiser Family Foundation (KFF) State HIV/AIDS Profiles

• Searchable data by state
• HIV/AIDS prevalence and diagnosis data
• HIV prevention and care funding
• HIV service provision (e.g., testing, care sites)
• Intersectional data (e.g., HIV services and Medicaid coverage)

More about KFF data and reports at http://kff.org/state-category/hivaids/
Example: KFF Data on HIV Testing Rates

Percentage of Persons Aged 18-64 Who Reported Ever Receiving an HIV Test
AIDSVu.org

- Interactive county- and city-level HIV data
- Dynamic maps
- Local profiles
Example:
AIDSVu HIV Prevalence Data for Denver County

Denver County, CO
At the end of 2010, 1,222 of every 100,000 people were living with an HIV infection diagnosis.
State-developed Epidemiologic Profiles

- Most states have HIV epidemiologic profiles
- Many are categorized by demographic and risk factors
- Many include geocoded data
- Overlays with other social determinants
HIV infection in Oregon among men who have sex with men

Newly diagnosed HIV infection among men who have sex with men, 2008–2012

Men who have sex with men (MSM) accounted for 63% (907/1,427) of all Oregon HIV/AIDS cases* diagnosed during 2008–2012 among all genders, and 72% (907/1,217) of all new cases among men (Figure 1). Nationally, MSM** account for about three out of five (63%) of all newly diagnosed HIV infections. This is the only category in the United States for which new HIV infections are increasing.

Male transmission categories among Oregon cases of HIV infection, 2008–2012

- 72% MSM only
- 12% Heterosexual contact with an HIV+ partner
- 9% Heterosexual contact with a partner not known to be HIV-positive
- 5% Encounters with Transgendered person
- 5% EU + IDU
- 1% Adult recipient of blood product
- 1% Heroin

HIV infection and MSM at a glance:

- MSM represent 64% of all Oregon HIV cases living at the end of 2012.
- Among living MSM, Oregon HIV cases, 35% had AIDS upon or within 12 months of diagnosis.
- Only 9% of all living MSM Oregon HIV cases are under the age of 30, but from 2007 to 2012, 35% of MSM HIV diagnoses were under the age of 30.

An additional 9% of male cases reported having sex with other men in addition to having used injection drugs (MSM/IDU). Heterosexual transmission among men is relatively rare in Oregon. During 2008–2012, about 2% (n=23) of newly diagnosed men were assumed to have acquired the infection from a female partner who was infected with HIV or used injection drugs.

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** For this report, a “case” is defined as an Oregon resident diagnosed with HIV/AIDS before being diagnosed in another state. Only those cases reported to the Oregon Health Authority HIV Program were included. People living with HIV in Oregon not counted in this report include those who resided in another state when they were diagnosed and approximately 1,210 who are infected but have yet to be tested (Hall, H. 2013. “Differences in human immunodeficiency virus care and treatment among subpopulations in the United States.” JAMA Intern Med 173(14): 1337–1344).

** For the purposes of this report, men who have sex with men (MSM) is defined as a male who has anal and/or oral sex with another male.
Data Interpretation

- What data is relevant?
- What other data might be helpful?
- Placing HIV prevalence, incidence, and risk data within the broader context
- Developing local epidemiologic profiles to guide prevention planning and decision making
Placing the Data into Context

• “Triangulate” HIV data from multiple sources
  o National
  o State
  o Local
A Framework for Looking at the Data

**National-level data**
- Begin to focus on the epidemic
- May profile the local epidemic

**State-level data**
- Begin to hone in on the epidemic
- Remember nationally collected data sources
- May be more helpful to local providers than national data

**Local-level data**
- Fine-tune data on the epidemic
- Community partners and healthcare providers likely to be more responsive to local data
What HIV-specific factors should you be looking at?

- Gender
- Race and ethnicity
- Age
- Risk behavior
- Geographic patterns
- Testing rates or history of testing
- Overlap with STD, and possibly pregnancy, data
Placing the Data into Context

• “Triangulate” HIV data from multiple sources
  o National
  o State
  o Local

• Cross-reference with other data and information sources
  o STD surveillance data
  o Pregnancy and birth rates
  o Other experts: healthcare providers, HIV planning bodies, etc.
Created to provide an interactive platform for accessing data collected by CDC’s National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention (NCHHSTP).
• Data available by state or county: syphilis, gonorrhea, chlamydia, and HIV
• Can filter data by disease, year, race/ethnicity, sex, age, and transmission category
Colorado – 2013 State Health Profile

HIV/AIDS Epidemic
In 2011, an estimated 46,081 people in the United States were diagnosed with HIV, the virus that causes AIDS. About 1 in 6 people with HIV in the United States do not know that they are infected.

In 2011, an estimated 404 adults and adolescents were diagnosed with HIV in Colorado. Colorado ranked 26th among the 50 states in the number of HIV diagnoses in 2011.

Adolescent and School Health
Many young people engage in sexual risk behaviors that can result in unintended health outcomes. Sexual risk behaviors place adolescents at risk for HIV infection, other sexually transmitted diseases, and unintended pregnancy.

Sexually Transmitted Diseases (STDs)
Syphilis – Primary and secondary (P&S) syphilis (the stages in which syphilis is most infectious) remains a problem, primarily in the southern United States and some urban areas.

- In Colorado, the rate of primary and secondary syphilis was 2.6 per 100,000 in 2008 and 4.1 per 100,000 in 2012. Colorado now ranks 21st in rates of P&S syphilis among 50 states.
- There were 0 cases of congenital syphilis from 2008 through 2012.

Chlamydia and Gonorrhea – Untreated STDs are a common cause of pelvic inflammatory disease, infertility and chronic pelvic pain. In addition, they can increase the spread of HIV, and cause cancer. Pregnant women and newborns are particularly vulnerable. In 2012, Colorado:

- Ranked 26th among 50 states in chlamydial infections (422.7 per 100,000 persons) and ranked 37th among 50 states in gonorrheal infections (55.2 per 100,000 persons).
- Reported rates of chlamydial infections among women (107 cases per 100,000) that were 2.5 times greater than those among men (230.3 cases per 100,000).
Consult with Local Experts and Stakeholders

- Providers delivering PrEP
- Other clinical providers
- HIV prevention and care planning bodies
- HIV prevention practitioners: CBOs, ASOs, etc.
- Primary care providers: What do you need to know about the population at risk before discussing or prescribing PrEP?
- Populations at risk for HIV: What might you want to know that might encourage you to consider your HIV prevention options, including PrEP?
Placing the Data into Context

• “Triangulate” HIV data from multiple sources
  o National
  o State
  o Local

• Cross-reference with other data sources
  o STD surveillance data
  o Pregnancy and birth rates
  o Other experts: healthcare providers, HIV planning bodies, etc.

• Overlap with non-sexual health data sources
  o Poverty rates, educational attainment, etc.
HIV Data Fits within a Broader Set of Social Determinants

- Poverty
- Employment
- Neighborhood
- Race/ethnicity
- Educational attainment
- Incarceration
- Insurance coverage
- Transportation
- Housing
- Immigration status
- Substance use
- Mental health
- Relationship recognition
- Access to healthcare
- Intersection of all of the above
Constructing Local-use Profiles

- Likely to be as many local reports as there are localities
- Consider your audience: persons at risk for HIV, healthcare providers, prevention providers, politicians and other decision-makers (others?)
- Consider what would be most useful for the local population
  - What might best inform providers about who might benefit from PrEP?
  - What might best encourage persons at risk for HIV to consider their HIV prevention options, including PrEP?
Local Report Framework: AIDSVu Example

Late HIV Diagnoses: Estimated Percent of Adults/Adolescents Diagnosed with AIDS Within 12 Months of Initial HIV Infection Diagnosis: 2011

- United States, 32%
- Denver Metro Area, 31.1%

Estimated Percent of Persons Living with an HIV Diagnosis at the End of 2011

Male Transmission Categories:
- Injection Drug Use (4.7%)
- Heterosexual Contact (3.7%)
- Other* (6.3%)
- Male-to-Male Sexual Contact (75.1%)
- Male-to-Male Sexual Contact & Injection Drug Use (10.2%)

Female Transmission Categories:
- Injection Drug Use (20.2%)
- Heterosexual Contact (59.8%)
- Other* (20.1%)

*Includes hemophilia, blood transfusion, perinatal exposure, and risk factor not reported or not identified.
Local Report Framework: HIVContinuum.org Example

- Local reports for select cities: Washington, DC; Philadelphia; Atlanta
- Potential guide or framework for local profiles
Dissemination Mechanisms

Communicate risk profiles and HIV prevention messages to healthcare providers, HIV prevention partners, and communities at risk

- Policy briefs
- Print media
- Earned media: press release, news reports, editorials
- Social media: Facebook, Twitter, Instagram, etc.
- Newsletters
- Conference presentations
- Local medical society connections
- HMO/healthcare organization medical director/quality control officer
- Insurance plan medical directors
- Medicaid program staff
- Prevention and care advisory groups
- Local community healthcare provider associations
Pulling it All Together

No need for PrEP
Pulling it All Together

No need for PrEP

May benefit from PrEP
Pulling it All Together

No need for PrEP

Offer PrEP

May benefit from PrEP
NACCHO’s Educational Series on PrEP and Local Health Departments

Module 1

PrEP for HIV Prevention: An Introduction
Beyond the Basics: The Science of PrEP
US Public Health Service Clinical Practice Guidelines for PrEP

Module 2

Who Might Benefit from PrEP: Individual-level Assessments

Module 3

Increasing PrEP Awareness and Knowledge in Your Jurisdiction
Incorporating PrEP into Comprehensive HIV Prevention Programs

NACCHO’s educational series about PrEP was supported by funding from Gilead Sciences, Inc.
PrEP Poses Many Questions

After watching the webcasts in Modules 1 and 2, join us for a live webinar discussion on
Friday, November 21, 2014 from 1:00-2:00 PM ET.


The webinar will be archived and made available via naccho.org.