Implementation of testing (and other interventions along the Continuum of Care)

Jonathan Mermin, MD, MPH
National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention
U.S. Centers for Disease Control and Prevention

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Overview

- HIV Epidemic in U.S.
- What Do We Do Now?
- Program and Policy Examples
- Conclusions
Number of people living with HIV has grown because incidence is relatively stable and survival has increased.

Estimated HIV Transmission Rate

Health Inequity

• African Americans 8 times and Latinos 3 times more likely to have HIV than whites

• Women estimated to be diagnosed with HIV in their lifetime ranges from about 1 in 32 among African American women to 1 in 526 among white or Asian women

• HIV prevalence is associated with population density, region of residence, poverty, education, employment, and homelessness

• MSM >40 times more likely than other men and women

Diagnoses of HIV Infection, 2011—United States

N = 50,007  Average rate = 19 per 100,000

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.
Faster Action Now Saves Lives and Resources Later

Reducing incidence by 25%
- In 10 years would save 62,000 infections and $23 billion
- In 5 years would prevent 109,000 infections and $42 billion

Adapted from:
What Do We Do Now?
Challenging Times for HIV Prevention and Care

- Federal deficit ~$1.1 trillion in FY 2012
  - 3-year freeze on federal discretionary spending
  - Several years reduction in public health services
    - Loss of 46,000 state and local positions
    - Community organizations struggling
- But also,
  - New scientific breakthroughs
  - Affordable Care Act expanding coverage to tens of thousands with HIV and millions at risk for HIV

Kaiser Family Foundation; NASTAD; Center on Budget and Policy Priorities; National Coalition of STD Directors
Potential interventions

Assess efficacy and effectiveness

Establish cost and cost effectiveness per infections averted and life-years saved

Determine feasibility of full scale implementation

Develop epidemic models to project impact of interventions

Implement and evaluate programs

Prioritize interventions

HIGH-IMPACT PREVENTION

Strategy
<table>
<thead>
<tr>
<th>Untargeted interventions</th>
<th>Cost per new infection averted</th>
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<tbody>
<tr>
<td>Testing in clinical settings</td>
<td>51,000</td>
</tr>
<tr>
<td>Partner services</td>
<td>99,000</td>
</tr>
<tr>
<td>Linkage to care</td>
<td>115,000</td>
</tr>
<tr>
<td>Retention in care</td>
<td>76,000</td>
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<tr>
<td>Adherence to ART</td>
<td>43,000</td>
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<table>
<thead>
<tr>
<th>Targeted Interventions</th>
<th>HET</th>
<th>IDU</th>
<th>MSM</th>
</tr>
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<tbody>
<tr>
<td>Testing in non-clinical settings</td>
<td>866,000</td>
<td>54,000</td>
<td>18,000</td>
</tr>
<tr>
<td>Behavioral intervention for HIV+ people</td>
<td>595,000</td>
<td>700,000</td>
<td>97,000</td>
</tr>
<tr>
<td>Behavioral intervention for HIV- people</td>
<td>15,600,000</td>
<td>2,900,000</td>
<td>300,000</td>
</tr>
<tr>
<td>Pre-exposure prophylaxis (PrEP)</td>
<td>170,000,000</td>
<td>900,000</td>
<td>700,000</td>
</tr>
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Program and Policy Examples
Aligning Resources with the Epidemic

**CDC Funding of State and Local Health Departments**

- $339 million annually, allocated based on HIV prevalence
- Allows flexibility based on local epidemic modeling and needs
- Focuses on interventions that will have greatest impact on epidemic with 75% of budget mainly focused on HIV testing and prevention with positives including ART.

**Matching Prevention Funds to the Epidemic**

When CDC’s new approach is fully implemented, HIV prevention resources will closely match the geographic burden of HIV.

**Proportion of Americans Diagnosed with HIV Who Live in Each State (2008)**

**Proportion of CDC Core HIV Prevention Funding—FY2016**

1Maps do not include U.S. territories receiving CDC HIV prevention funding.

2 New funding allocation methodology will be fully implemented by FY2016; this breakdown assumes level overall funding.

www.cdc.gov/hiv/strategy/hihp/healthDepartments/
One-half of new HIV transmissions come from people unaware that they have HIV.
HIV Testing Examples

• Veteran Administration revised national HIV policy to routinely offer HIV testing to all veterans
  – Eliminated required written informed consent and pre- and post-test counseling
  – In 2009, 9.2% of outpatients had ever been tested for HIV, by 2011 this increased to 20%, representing 1.2 million more veterans

• Los Angeles Gay and Lesbian Center
  – 3.4% diagnosed of 1,212 people tested
  – 95% linked to care
Return on Investment: Expanded Testing Initiative

- $102 million over 3 years
- For HIV testing and linkage to care in clinical and non-clinical settings:
  - 2.8 million persons tested for HIV
  - 18,432 persons newly diagnosed with HIV
  - 3,381 HIV infections were averted
  - $1.1 billion in direct medical costs were saved
  - For each dollar the health system\(^1\) invested, $1.97 in medical costs was saved

Estimated Number of Adults and Adolescents Living with HIV Infection and Percent Undiagnosed
United States, 1985-2008

No. living with undiagnosed HIV infection
No. living with diagnosed HIV infection
Percent undiagnosed

Year

Number
0, 200,000, 400,000, 600,000, 800,000, 1,000,000, 1,200,000

Percent
0.0, 20.0, 40.0, 60.0, 80.0, 100.0
Clinical Medicine and Public Health

- All persons with HIV
- All diagnosed persons
- Any HIV care
- Regular HIV care
- Prescribed ART

Reduce Risk Behavior

PUBLIC HEALTH

MMWR 2011 Dec 2;60(47):1618-23
Viral Load Indicators

- 64% (37) of states currently require all CD4 cell count and viral load data

“Guidance on Community Viral Load” distributed August, 2011.
Percentage of persons with HIV engaged in selected stages of the continuum of care, U.S.
Percentage of persons with HIV prescribed ART and with viral suppression, U.S.
Implement policies for CD4 and viral load reporting

Enhance reporting from laboratories
- Implement electronic lab reporting
- Standardize reporting elements
- Work with public and private labs to improve data quality

• Ensure reporting from healthcare providers
• Provide feedback to providers and patients on clinical outcomes
• Assist providers with re-engaging patients

• Implement policies to facilitate data sharing
• Disseminate data on progress meeting indicators
• Monitor outcomes of viral load suppression
CDC HIV Rapid Feedback Reports

- Semi-annual data from funded partners
- Few indicators in easily understood reports
- Feedback to grantees of progress with comparison to goals and other grantees
- Reduced reporting burden and frequency of reporting by 25-30%
Program for Young MSM of Color, year 1

Figure 1a. Number of Clients Tested for HIV

Figure 1b. Percent of Clients with a New Confirmed Positive Result

Figure 1c. Percent of New Positives Linked to HIV Medical Care

Agencies that met or exceeded the target are depicted in black, agencies that did not meet the target are indicated in light red. The vertical line represents the minimum targets for: tests conducted (600); % of tests with a new confirmed positive result (4%); and % of new positive clients linked to HIV medical care (70%).
Conclusions

• Reduced resources and new opportunities require change

• Improving outcomes along the continuum of care can be highly cost-effective

• Expanded responsibilities both public health and clinical care

• Monitor outcomes and use information to improve programs