

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

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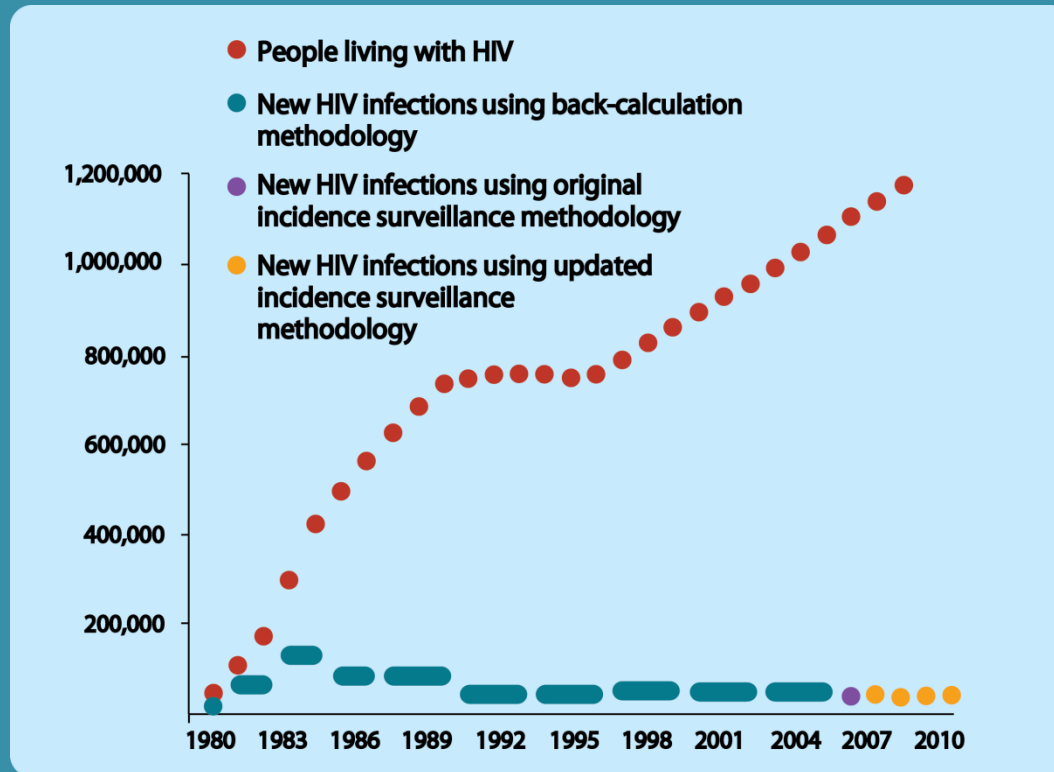
London, England



Overview

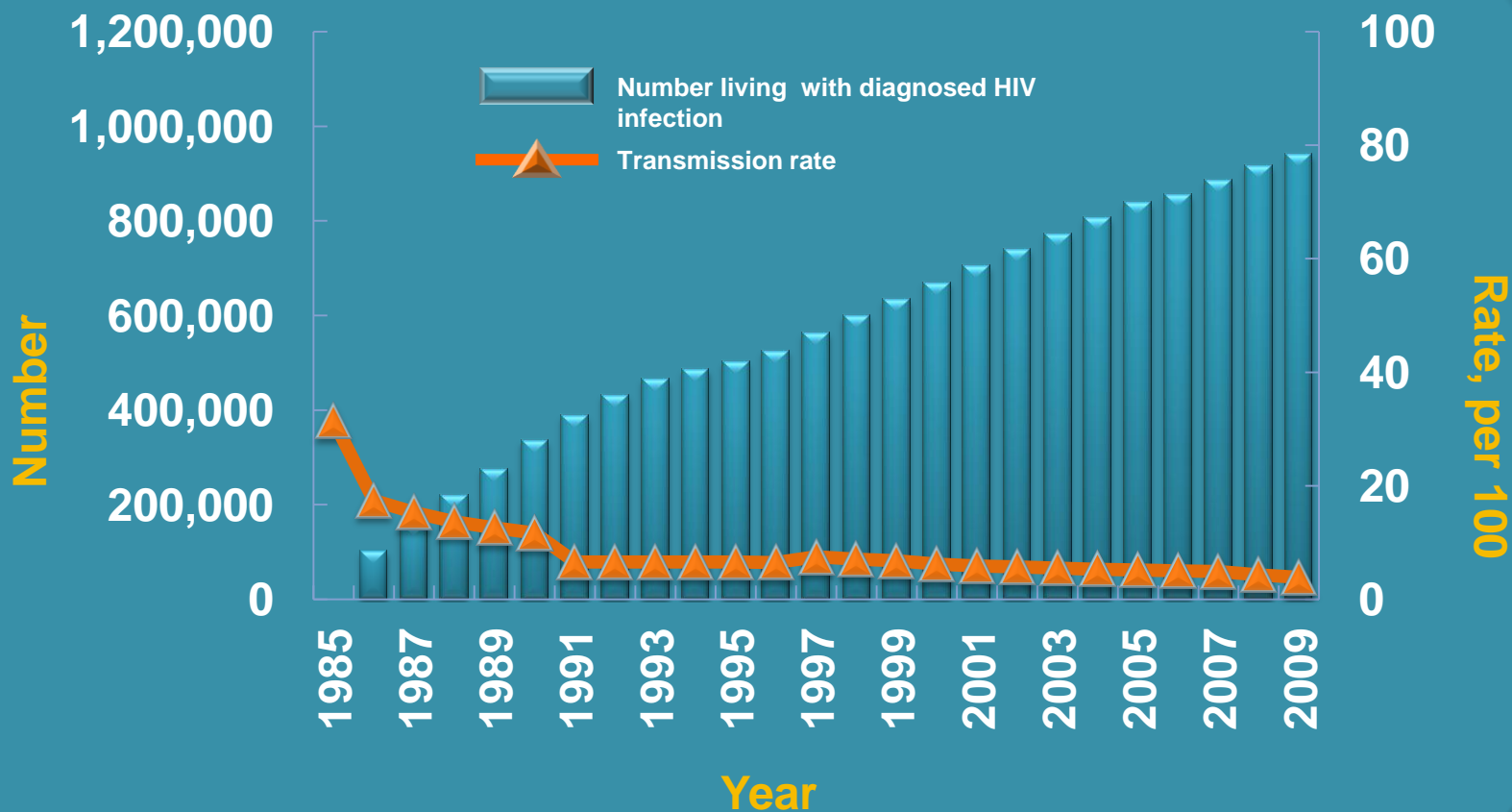
- ❑ HIV Epidemic in U.S.
- ❑ What Do We Do Now?
- ❑ Program and Policy Examples
- ❑ Conclusions

HIV Prevalence and Incidence United States, 1980-2010



Number of people living with HIV has grown because incidence is relatively stable and survival has increased

Estimated HIV Transmission Rate



CDC. MMWR 2012; 61 (Suppl; June 15, 2012): 57-64. Holtgrave et al. Updated Annual HIV Transmission Rates in the United States, 1978-2006. J Acquir Immune Defic Syndr 2009; 50 (2): 236-38; Holtgrave et al. HIV Transmission Rates in the United States, 2006-2008. The Open AIDS Journal 2012; 6:20-22.

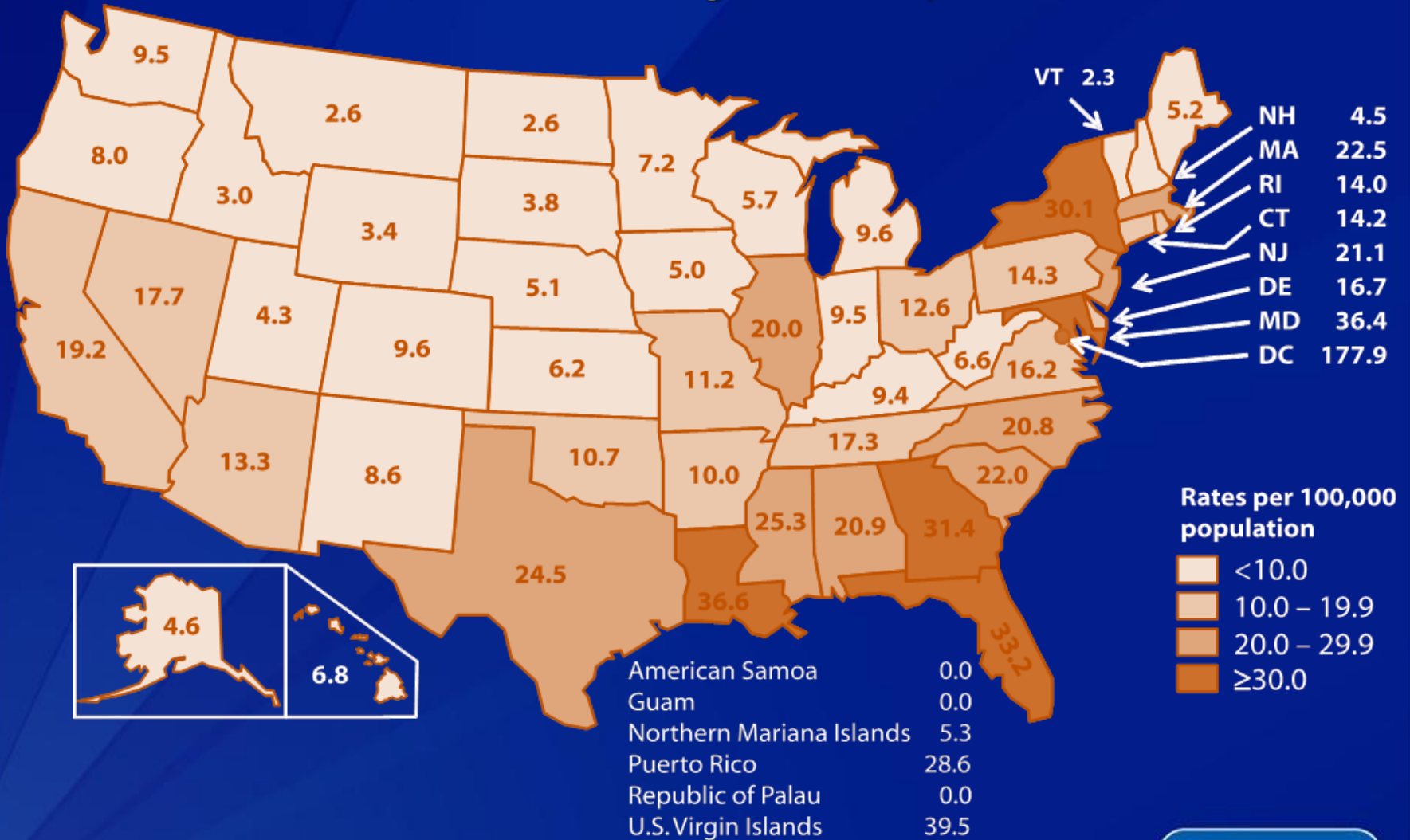
Health Inequity

- **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

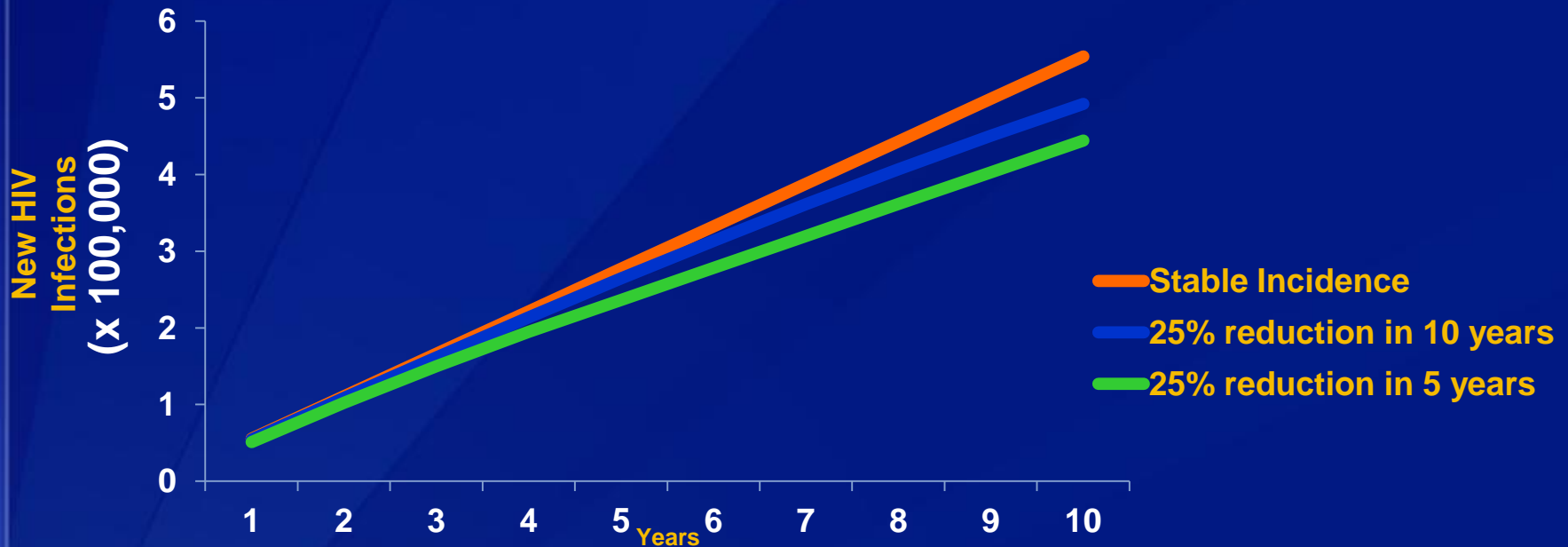
Average rate = 19 per 100,000



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

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

Strategy

HIGH-IMPACT PREVENTION

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



Prioritize
interventions



Implement
and evaluate
programs

Estimated Cost per Infection Averted (\$)

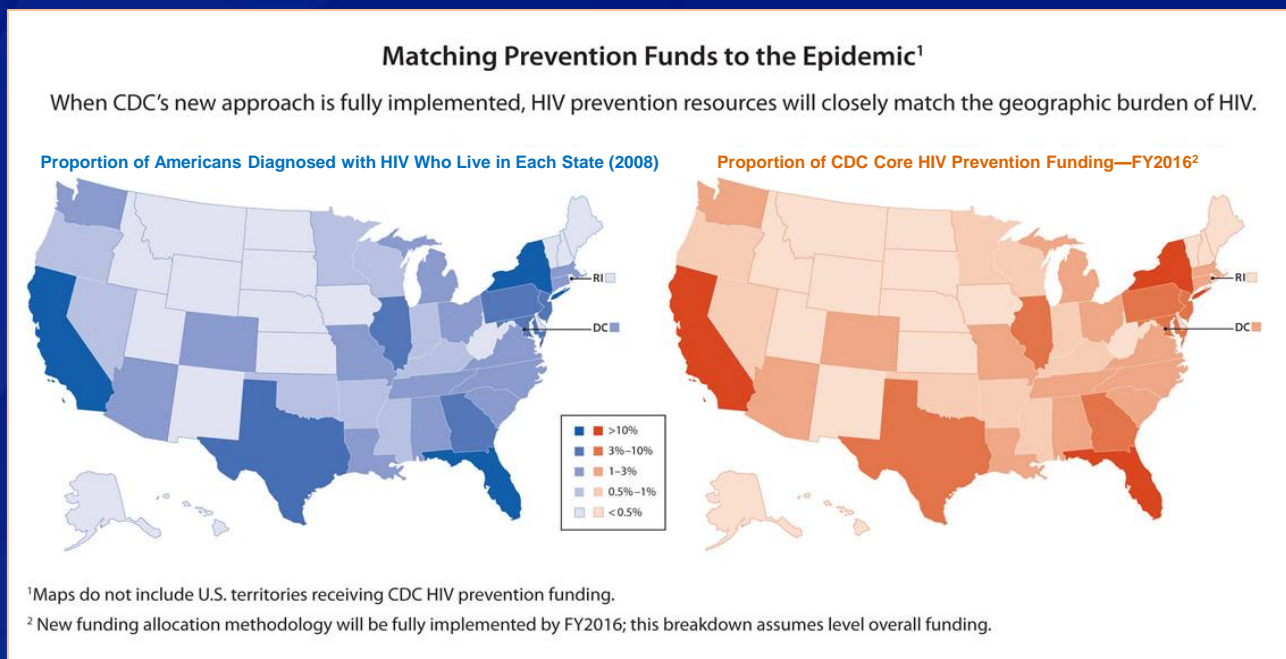
Untargeted interventions	Cost per new infection averted		
Testing in clinical settings	51,000		
Partner services	99,000		
Linkage to care	115,000		
Retention in care	76,000		
Adherence to ART	43,000		
Targeted Interventions	HET	IDU	MSM
Testing in non-clinical settings	866,000	54,000	18,000
Behavioral intervention for HIV+ people	595,000	700,000	97,000
Behavioral intervention for HIV- people	15,600,000	2,900,000	300,000
Pre-exposure prophylaxis (PrEP)	170,000,000	900,000	700,000

Program and Policy Examples

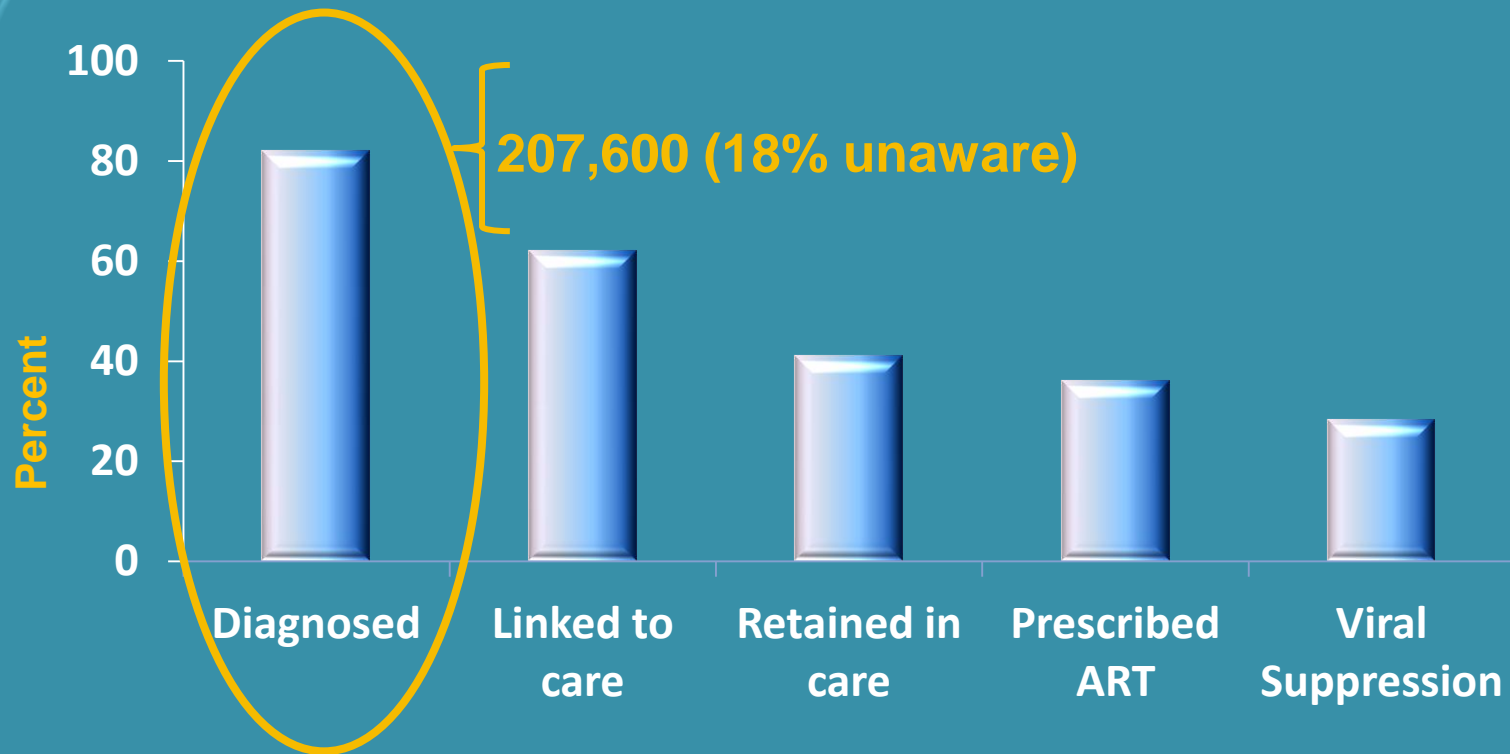
Aligning Resources with the Epidemic

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.



Proportion of People with HIV Diagnosed



One-half of new HIV transmissions come from people unaware that they have HIV

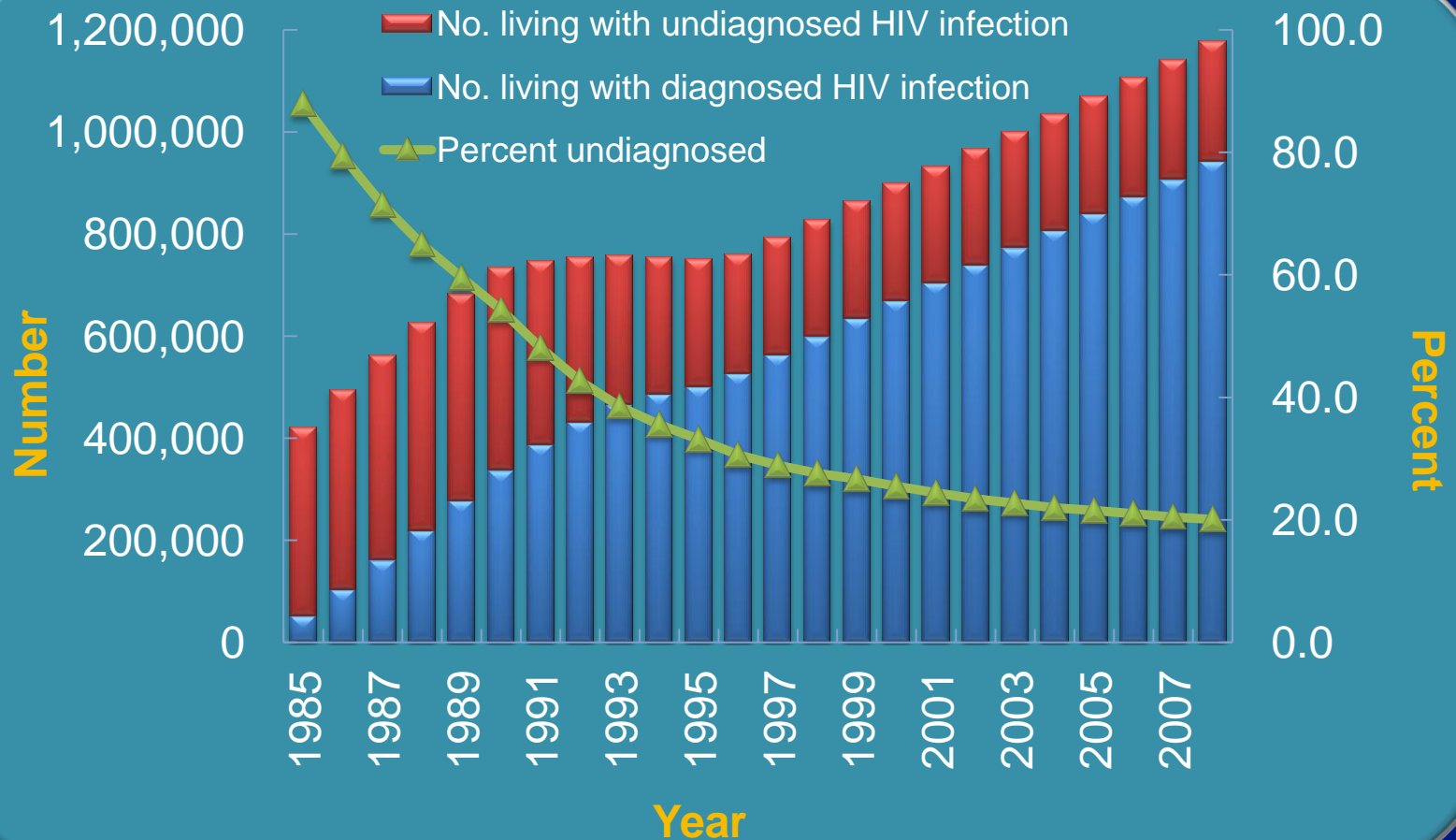
HIV Testing Examples

- **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**

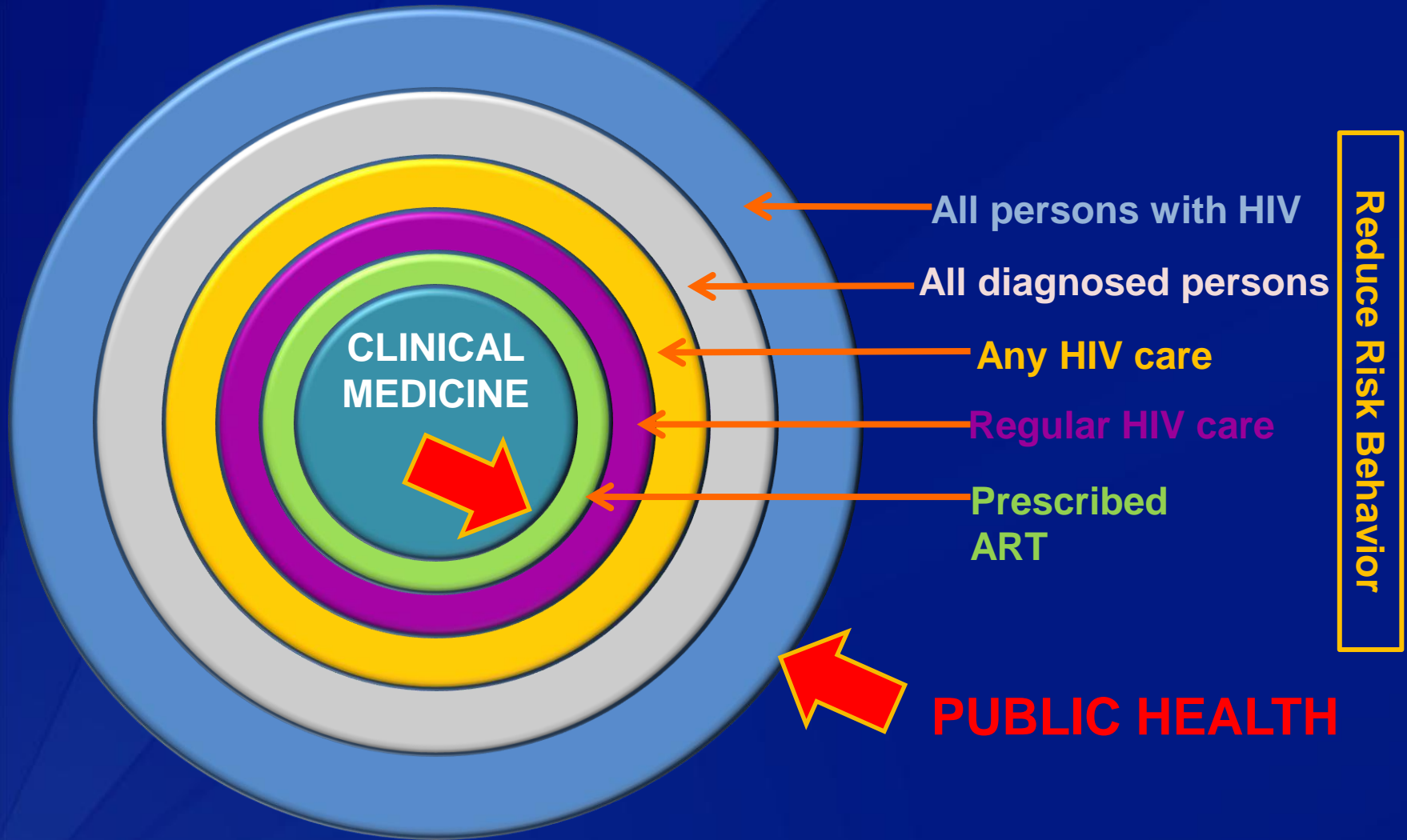
Return on Investment: Expanded Testing Initiative

- **\$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 system¹ invested, \$1.97 in medical costs was saved**

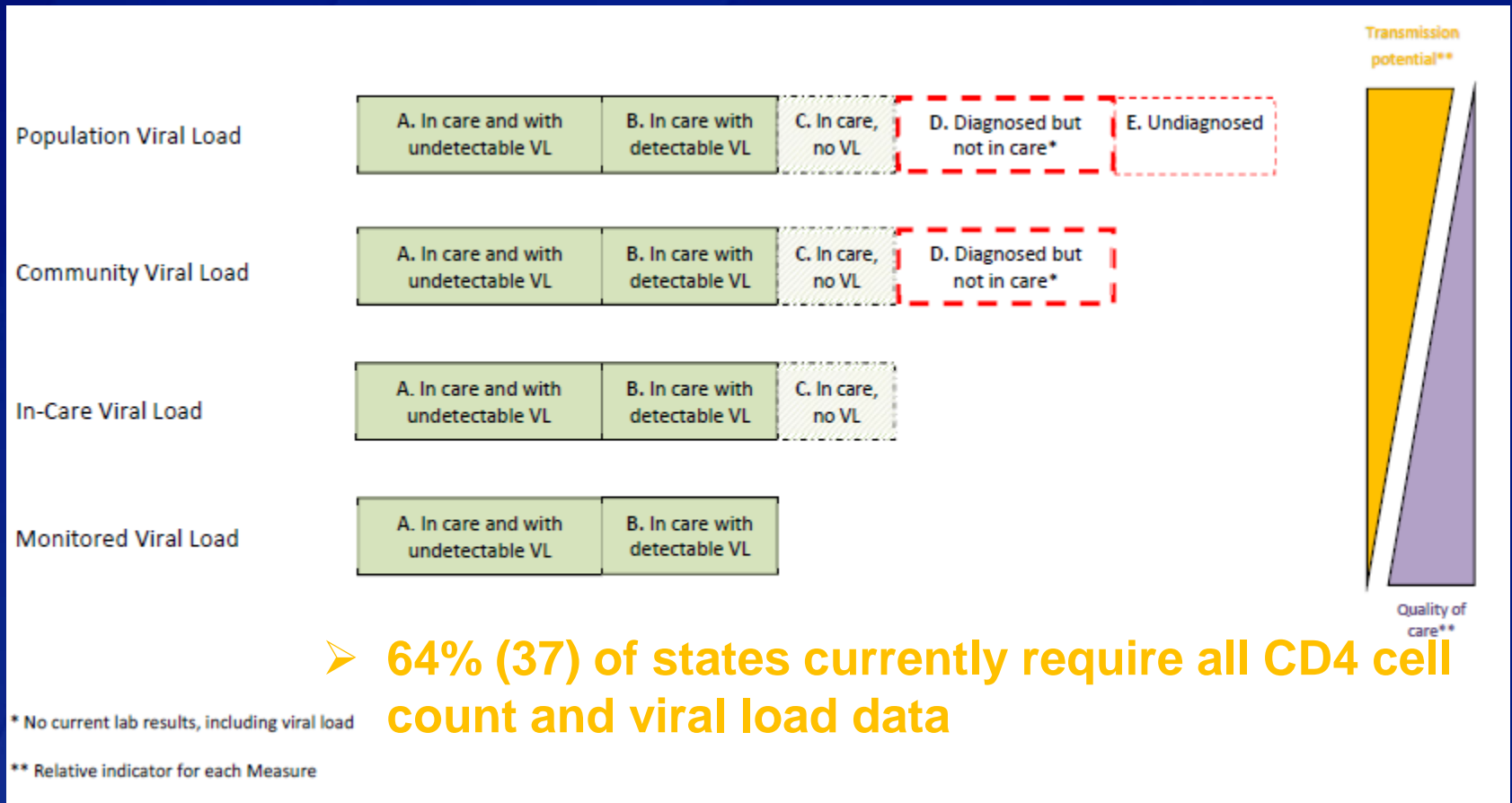
Estimated Number of Adults and Adolescents Living with HIV Infection and Percent Undiagnosed United States, 1985-2008



Clinical Medicine and Public Health



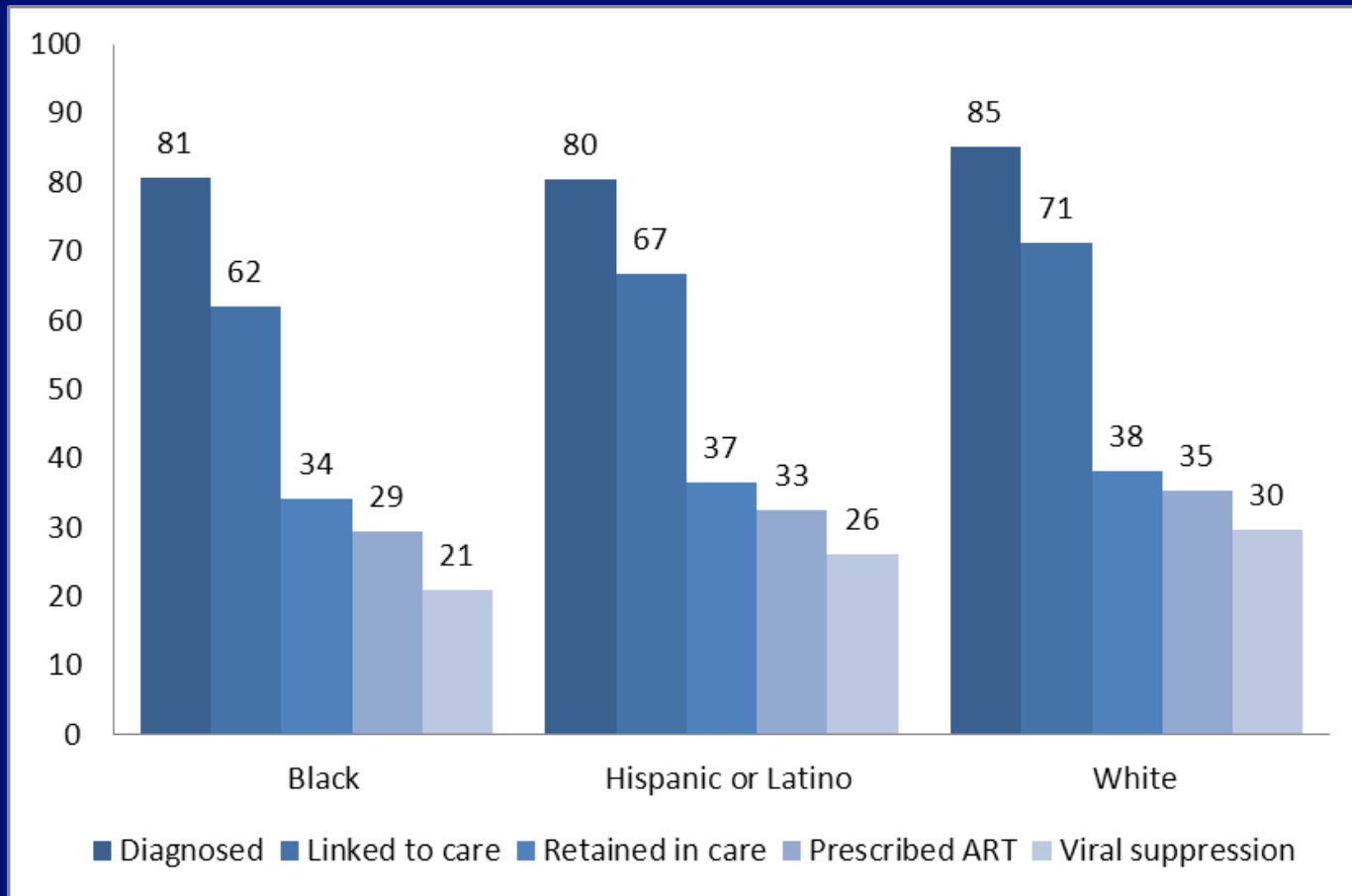
Viral Load Indicators



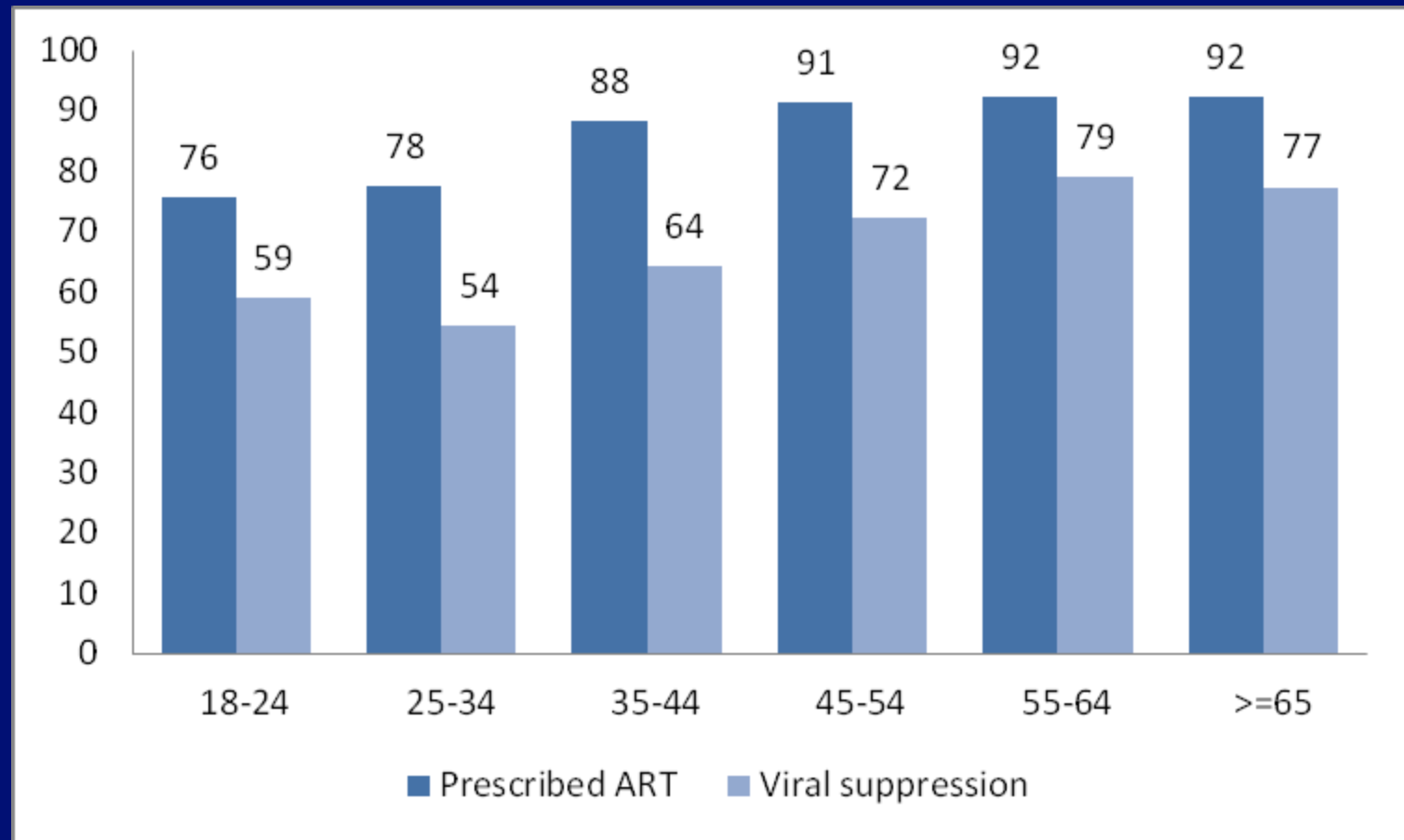
“Guidance on Community Viral Load” distributed August, 2011.

http://www.ct.gov/dph/lib/dph/aids_and_chronic/surveillance/statewide/community_viralload_guidance.pdf

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.



High Impact Surveillance

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%**

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**