



ConnectHIV

Pfizer Investments in Health

A COLLABORATIVE EFFORT AGAINST HIV/AIDS



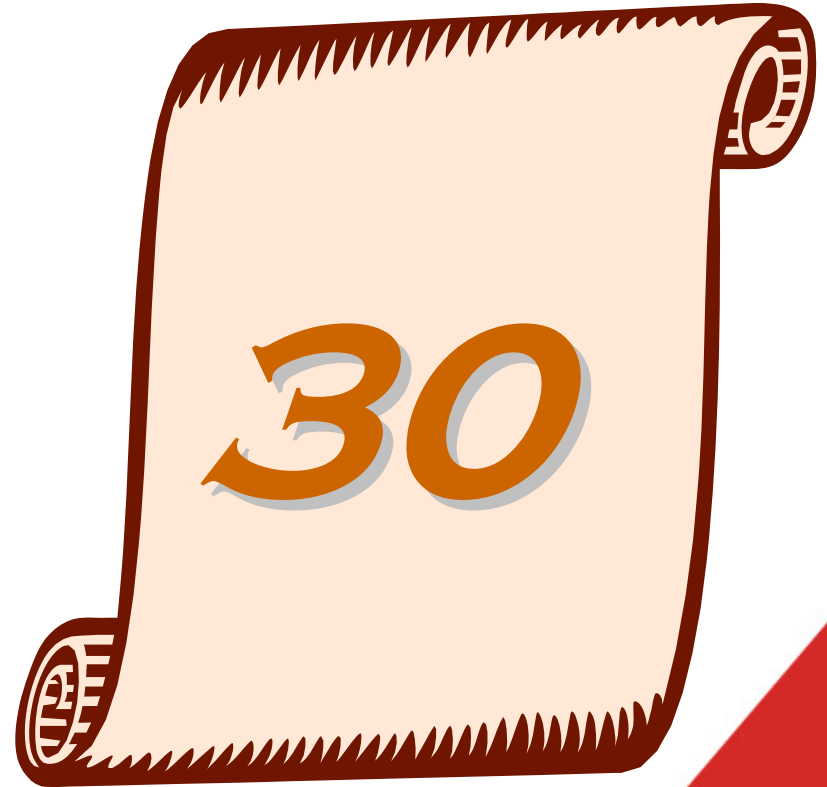
The Pfizer Foundation

Overview of Presentation

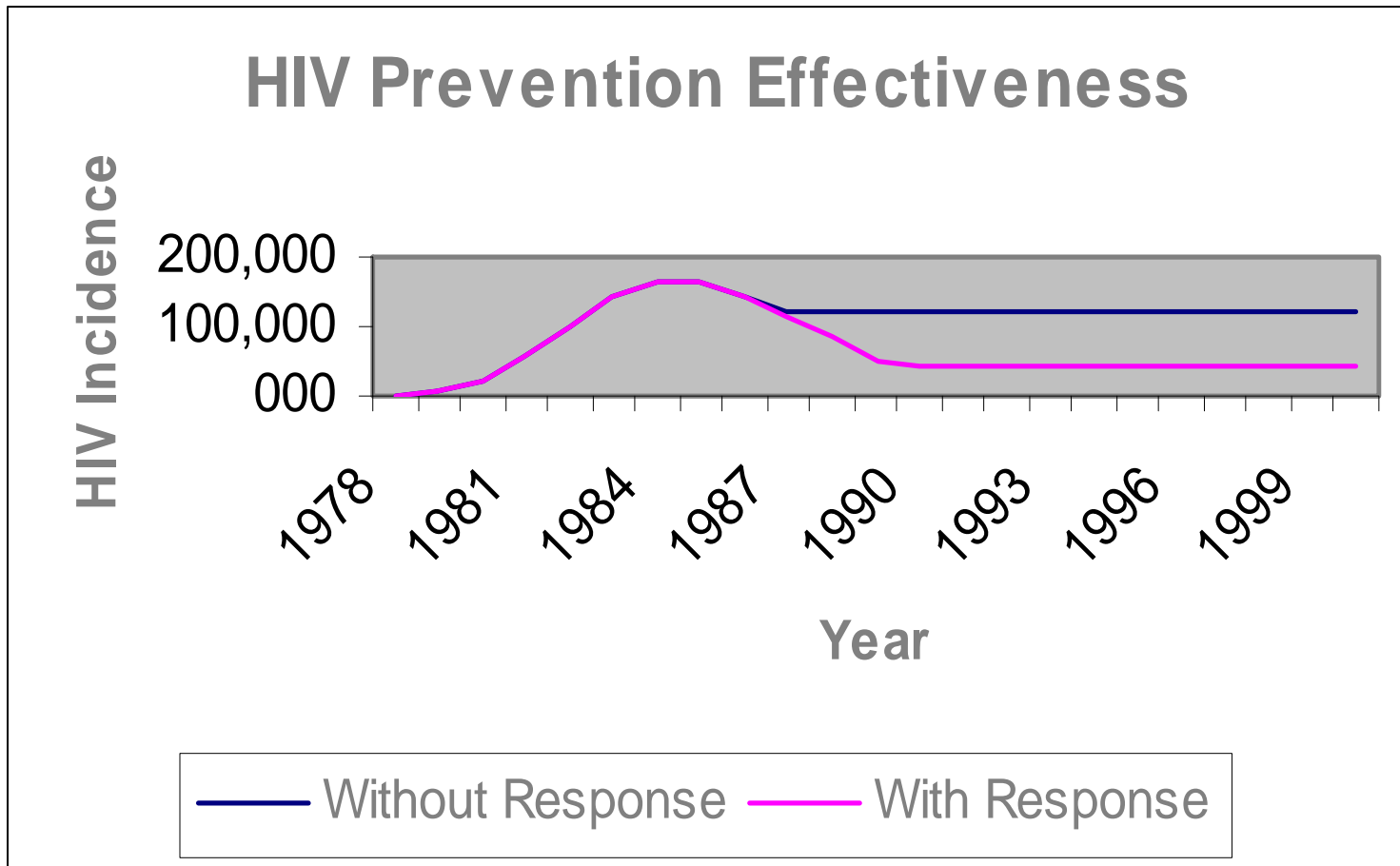
- Is the HIV/AIDS epidemic over in the US?
- Does HIV prevention work at the national level in the US?
- What is the status of the set of goals from the current (albeit expired) national HIV prevention plan?
- What might a new comprehensive national HIV prevention plan look like?
 - Which evidence-based prevention strategies should we emphasize in the next national plan?
 - How does opt-out HIV testing fit into that plan?
- Top Ten take-away Messages from the Conference



A new HIV infection roughly every 13 minutes; an AIDS-related death roughly every half-hour...still.



Modeling HIV Prevention Effectiveness: What Happened and What Would Have Happened Without Prevention Services in Place?

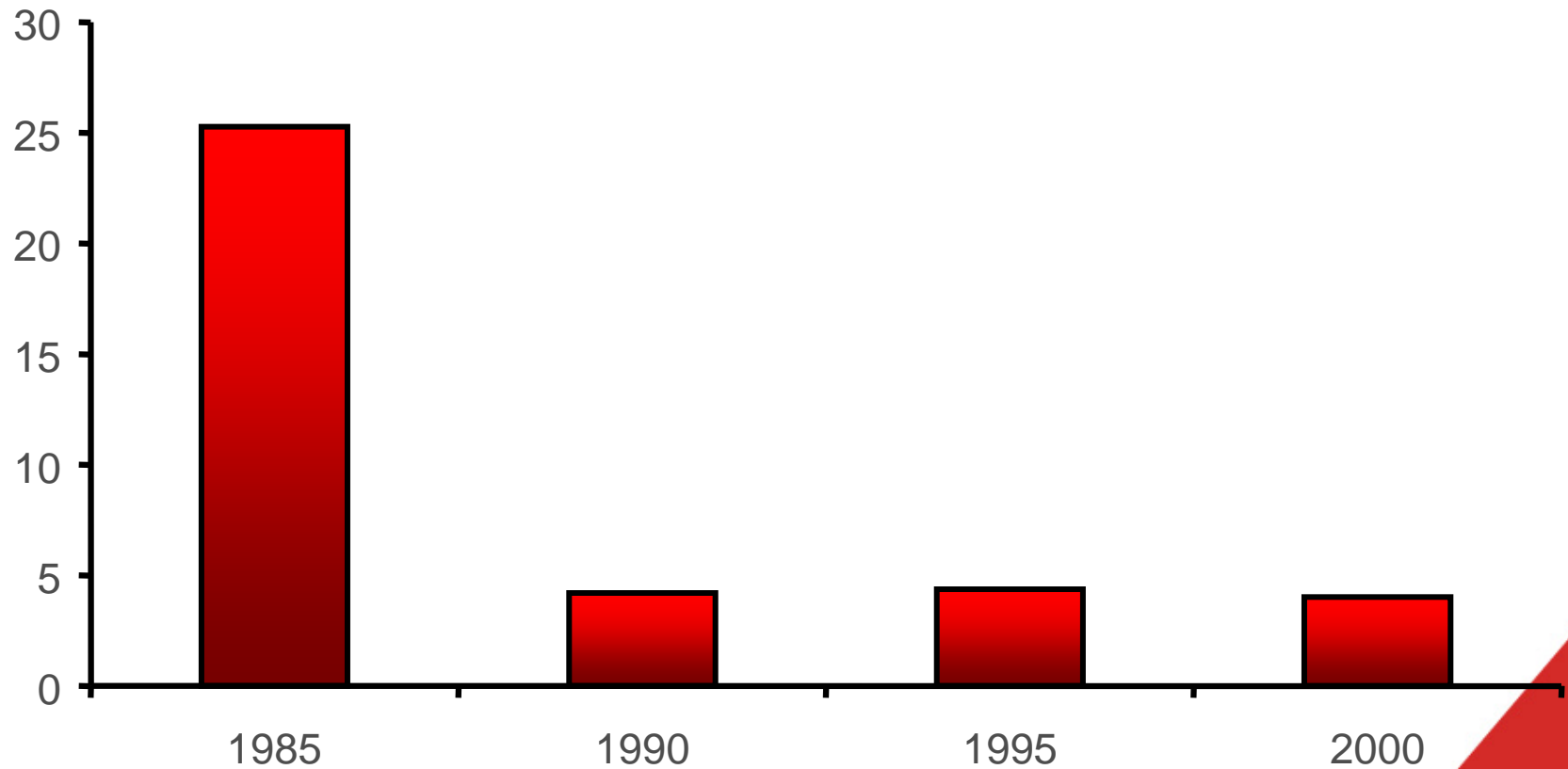


Note: *Best available* estimate of annual HIV incidence since early 1990s is 40,000 infections per year.

Modeling the Effectiveness and Efficiency of Overall National Response to HIV in the US

Modeling Scenario (without prevention, national HIV incidence may have...)	Estimated HIV Infections Averted (1985-2000)	Gross Cost per Infection Averted	Net Cost
Stayed flat after peak at 161,000 infections per year	1,585,000	\$6,400	Cost-saving
Declined (after peak), then flattened at 123,000 infections per year	1,031,000	\$9,800	Cost-saving
Declined (after peak) at 6% per year	672,000	\$15,100	Cost-saving
Declined (after peak) at 12% per year until flat at 40,000 infections per yr.	204,000	\$49,700	Cost-saving

Estimated HIV Transmission Rate (as percentage of PLWH/A) in the US, 1985-2000



Refining Transmission Rates by Knowledge of Serostatus¹⁻³

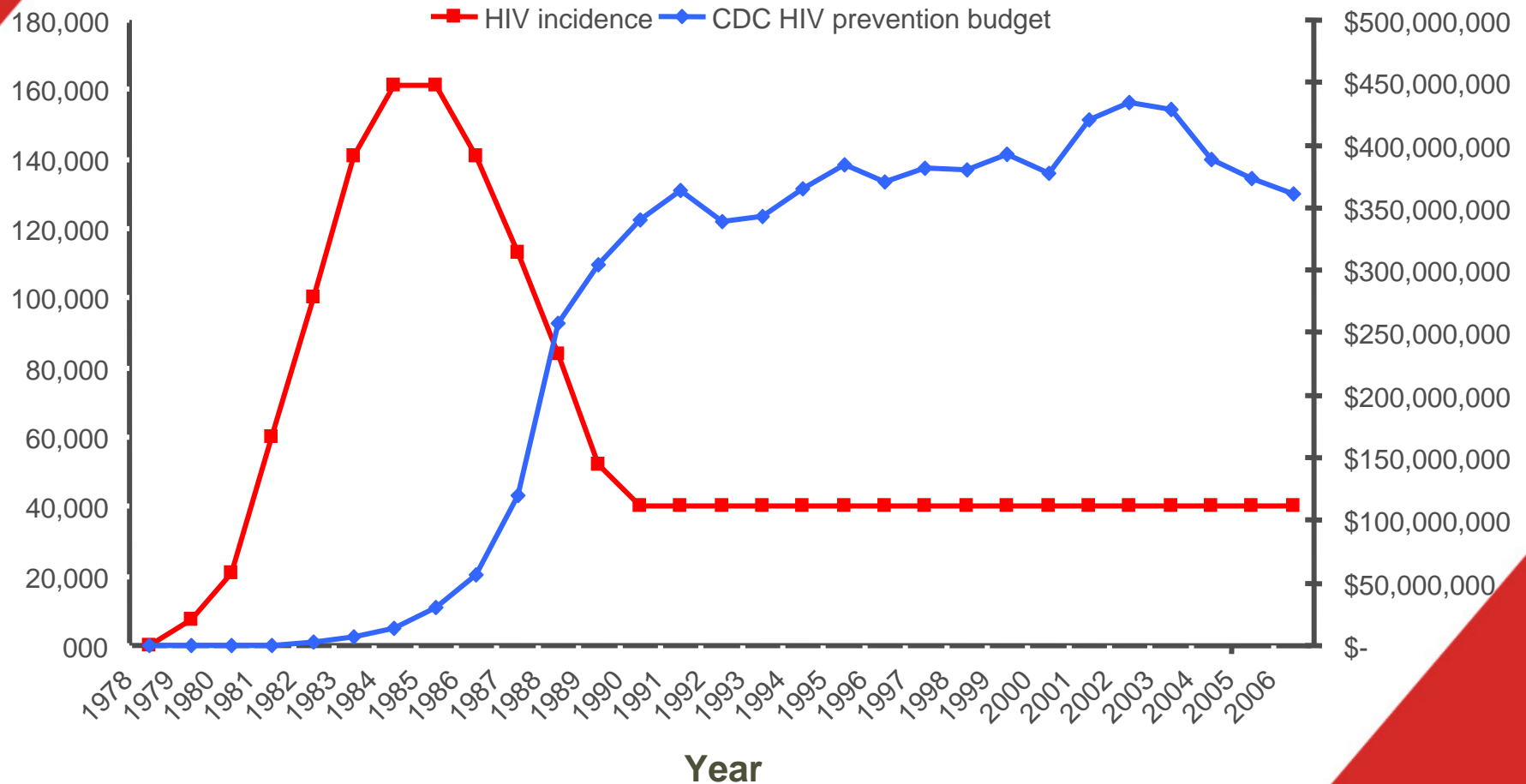
- Unaware of HIV seropositivity
 - Transmission rate estimated at 8.8 to 10.8%
- Aware of HIV seropositivity
 - Transmission rate estimated at 1.7 to 2.4%

1. Holtgrave DR et al. Int J STD AIDS. 2004;15(12):789-92.

2. Marks G et al. AIDS. 2006;20(10):1447-50.

3. Holtgrave, Pinkerton. JAIDS. 2007.

HIV Incidence and CDC's HIV Prevention Budget (in 1983 Dollars), US, 1978-2006



CDC HIV Prevention Budget and Cost of Unmet Needs

- Adjusted for inflation, CDC's HIV prevention budget decreased by 19.3% from FY02-07
- \$171 million would be need to undo the damage of budget cuts, administrative budget realignment, and inflationary pressures
- On top of that, cost of unmet needs analyses would suggest a shortfall of another roughly \$434 million
- Adding current budget, inflation adjustment and unmet needs estimates would indicate a needed budget of \$1.321 billion
 - Note: \$45 million in one-time funds from may have been “found” by CDC in FY07 inside of agency; source and precise use of funds still unclear

Reduce the number of new HIV infections in the US from an estimated 40,000 to 20,000 per year by the year 2005, focusing particularly on eliminating racial and ethnic disparities in new HIV infections.

– Overarching National Goal from the CDC,
“HIV Prevention Strategic Plan Through 2005,” January 2001

HIV/AIDS Diagnoses 33 States, 2001-2005

- 185,390 diagnoses in 5 years
- Average of 37,078 diagnoses per year
- 33 states account for 63% of AIDS cases
- Incidence usually greater than diagnoses (depends on many factors)
 - 185,390 in 5 years in 33 states might imply incidence well over 40,000 per year in US

CDC's 2007 Addendum to National Plan

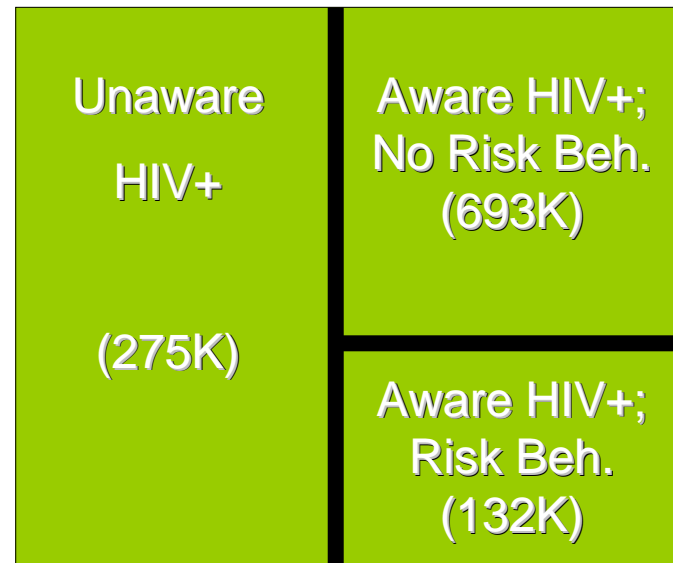
- Reduce new infections by at least 10% by 2010 (with emphasis on reducing health disparities)
- Increase awareness of seropositivity from 75% to 80% by 2010
- Increase from 50% to 65% by 2010 proportion of newly diagnosed PLWH who are linked to appropriate prevention, care and treatment services
- Reported cause of lowered expectations: limited resources

The “Next” National Goal: A more ambitious proposal

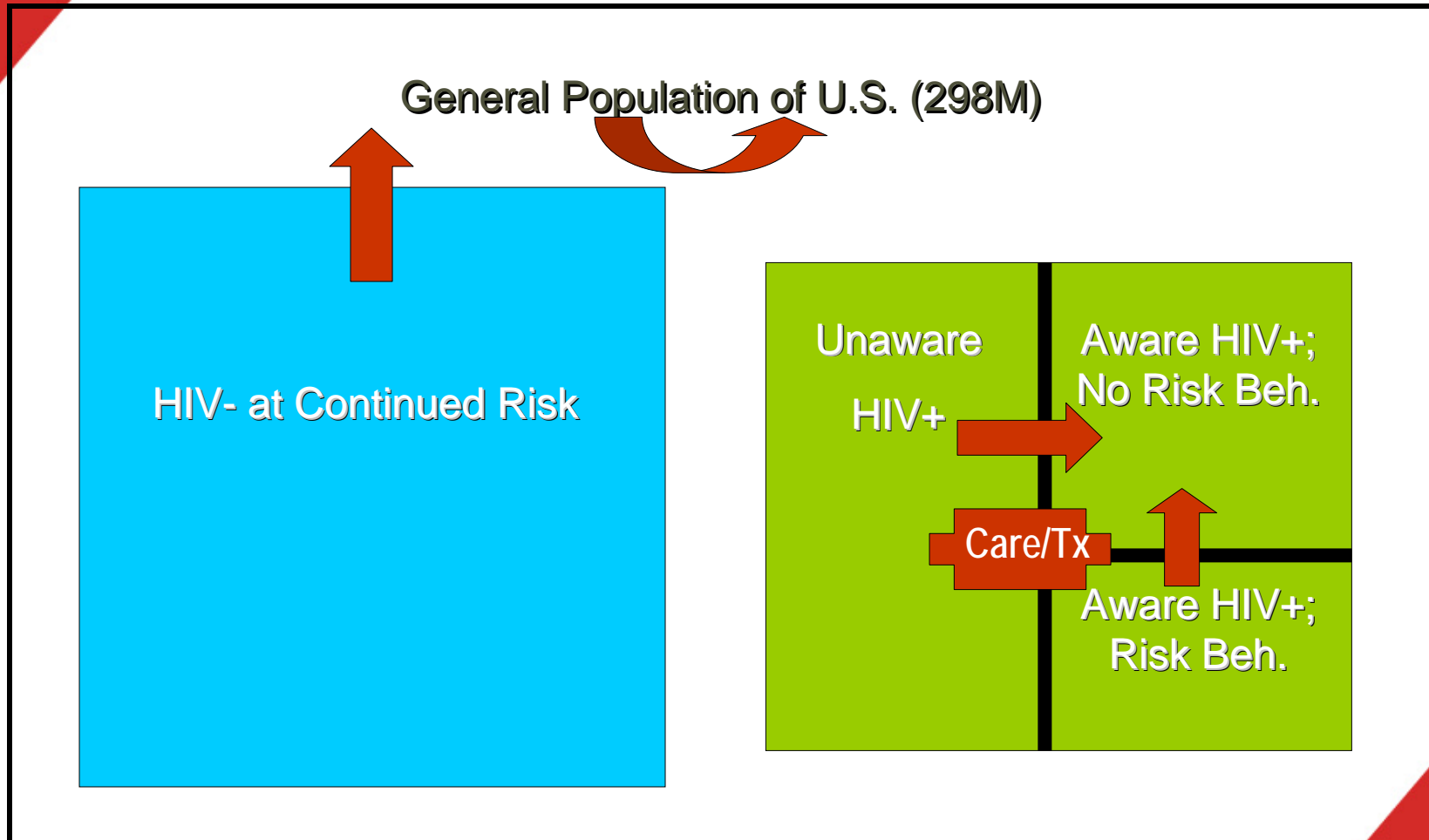
- In 3 (maximum 4) years, reduce new HIV infections in the US to 20,000 per year or less, paying particular attention to racial/ethnic health disparities
 - Over those years, annual progress toward the goal should be achieved in terms of
 - (a) national investment
 - (b) process measures (in terms of policy implementation, barrier reduction and service delivery), and
 - (c) annual outcomes assessment

Populations by HIV Serostatus and Behavioral Risk Level

General Population of U.S. (298M)

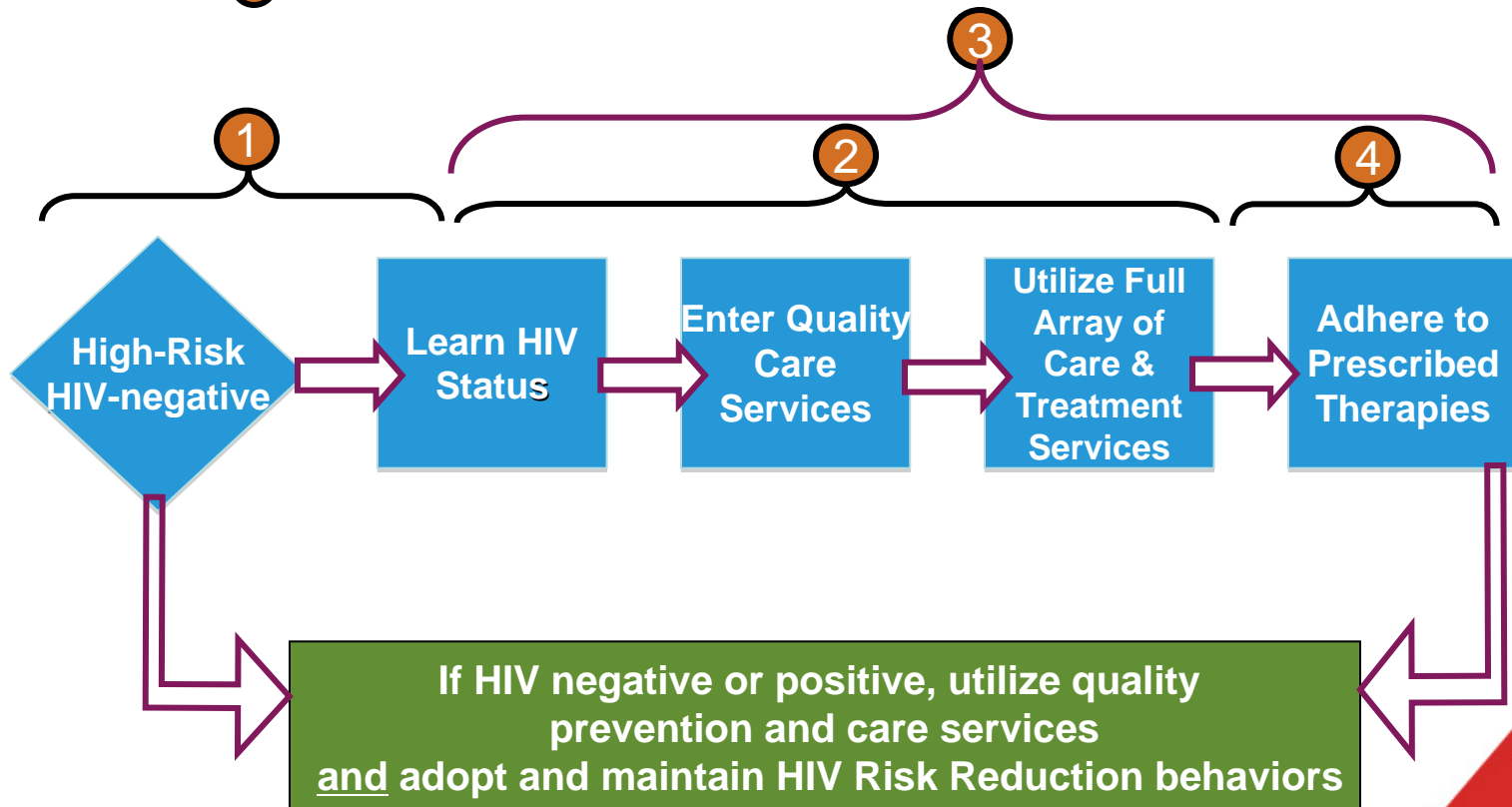


Populations by HIV Serostatus and Behavioral Risk Level



Grantee Programs Address the Continuum of Care

- 1 Prevent infections among high-risk HIV-negative persons
- 2 Prevent transmission from high-risk HIV-positive persons to their sex and/or needle sharing partners
- 3 Link prevention and care services for high-risk HIV-positive persons
- 4



Serostatus-specific HIV Prevention Update of SAFE Publication¹

<i>Population</i>	<i>HIV Prevention Services</i>
Tested HIV+	<ul style="list-style-type: none">• Intensive prevention services – esp. for minority of PLWH/A who don't change behavior (note: science is unfolding)• Linkages to medical care and treatment, STD, hepatitis, mental health, substance abuse, housing and social services as needed (note: care resource issues)• Comprehensive case management• Partner counseling and referral services• Special efforts re: recent infections• Structural interventions (including efforts to reduce barriers to care)• Perinatal transmission <i>elimination</i> effort

Serostatus-specific HIV Prevention Update of SAFE Publication¹

<i>Population</i>	<i>HIV Prevention Services</i>
Recently tested HIV-; continued behavioral risk of infection	<ul style="list-style-type: none">• HIV counseling and testing (customized for persons testing repeatedly)• Intensive individual or small group counseling• Community-level interventions• Linkages to STD, substance abuse, mental health, hepatitis, housing and social services as needed• Prevention case management• Structural interventions (including sterile syringe access)

Serostatus-specific HIV Prevention Update of SAFE Publication¹

<i>Population</i>	<i>HIV Prevention Services</i>
Unaware of serostatus	<ul style="list-style-type: none">• Encourage HIV <u>counseling and testing</u> (utilizing best available testing methods) as appropriate for risk level
General population	<ul style="list-style-type: none">• Provide <u>current</u>, essential HIV-related information (Over 40% of population misinformed about HIV)• Reduce stigma of HIV disease and services (19 to 25% of general population holds stigmatizing attitudes; in UCLA Law School study, substantial numbers of health care providers prefer not to give care to PLWH/A)

Levels of HIV Prevention Interventions

- Individual
- Dyad
- Family
- Group
- Community
- Structural
 - laws and policies;
 - environment;
 - social determinants



Housing as a Kind of HIV Prevention Intervention

- Higher rates of HIV-related risk behavior among homeless and unstably housed¹
 - Major study underway (sponsored by HUD and CDC) to determine prospectively the impact of housing on HIV-related risk behaviors (Baltimore, Chicago, LA)
- Housing is related to detectability of viral load²



1. Aidala A et al. *AIDS Behav.* 2005 Sep;9(3):251-65.

2. Knowlton A et al. *JAIDS.* 2006;41(4):486-92.

Social Determinants of STIs and AIDS Cases US States, 1999

Pearson correlation coefficients across 48 states with available data, df = 46

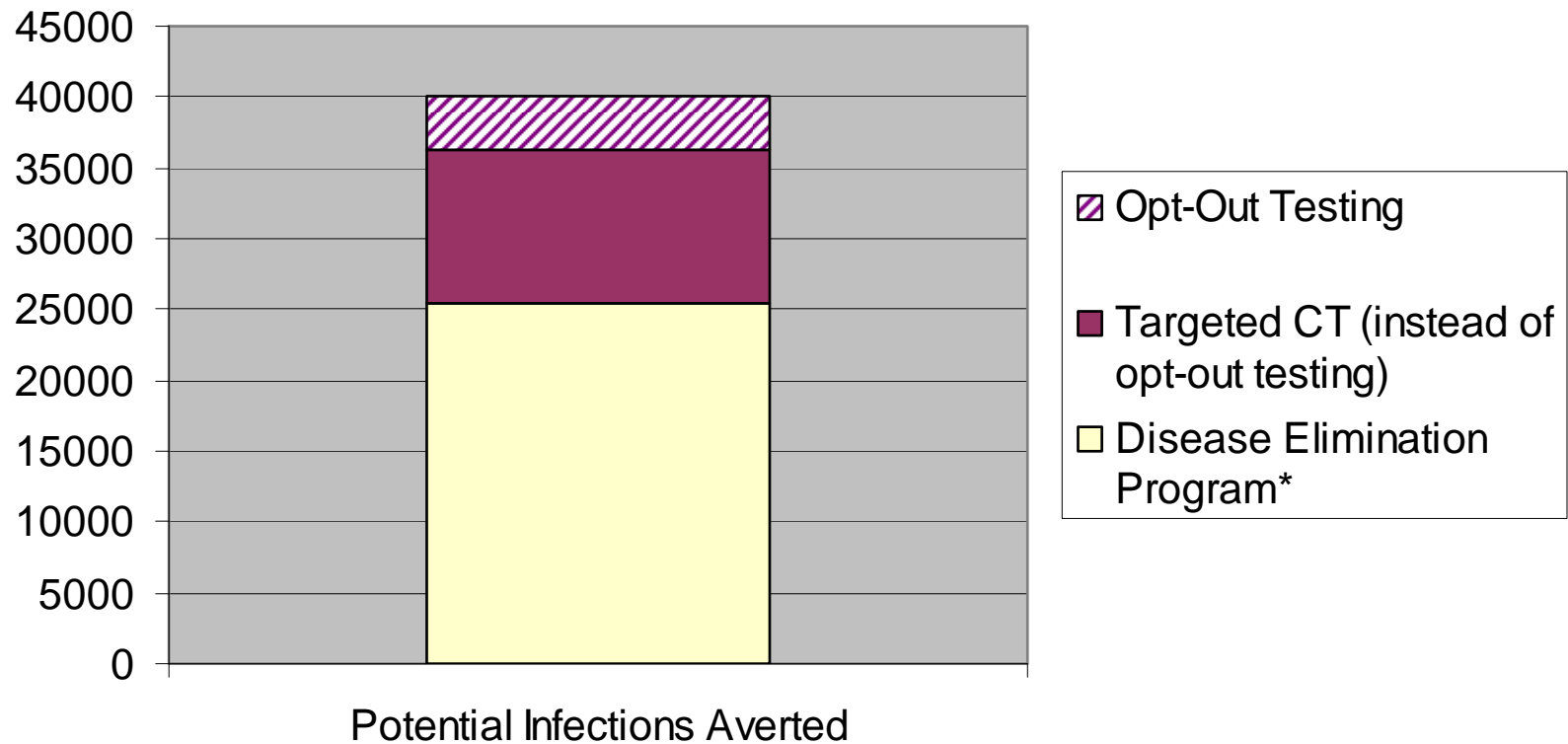
	Gonorrhea	Syphilis	Chlamydia	AIDS Cases
Poverty	.204	.232	.358*	.099
Social Capital	-.671*	-.591*	-.532*	-.498*
Income Inequality	.203	.133	.395*	.469*

* $P < .01$

Costs and Consequences of Four HIV Testing Scenarios

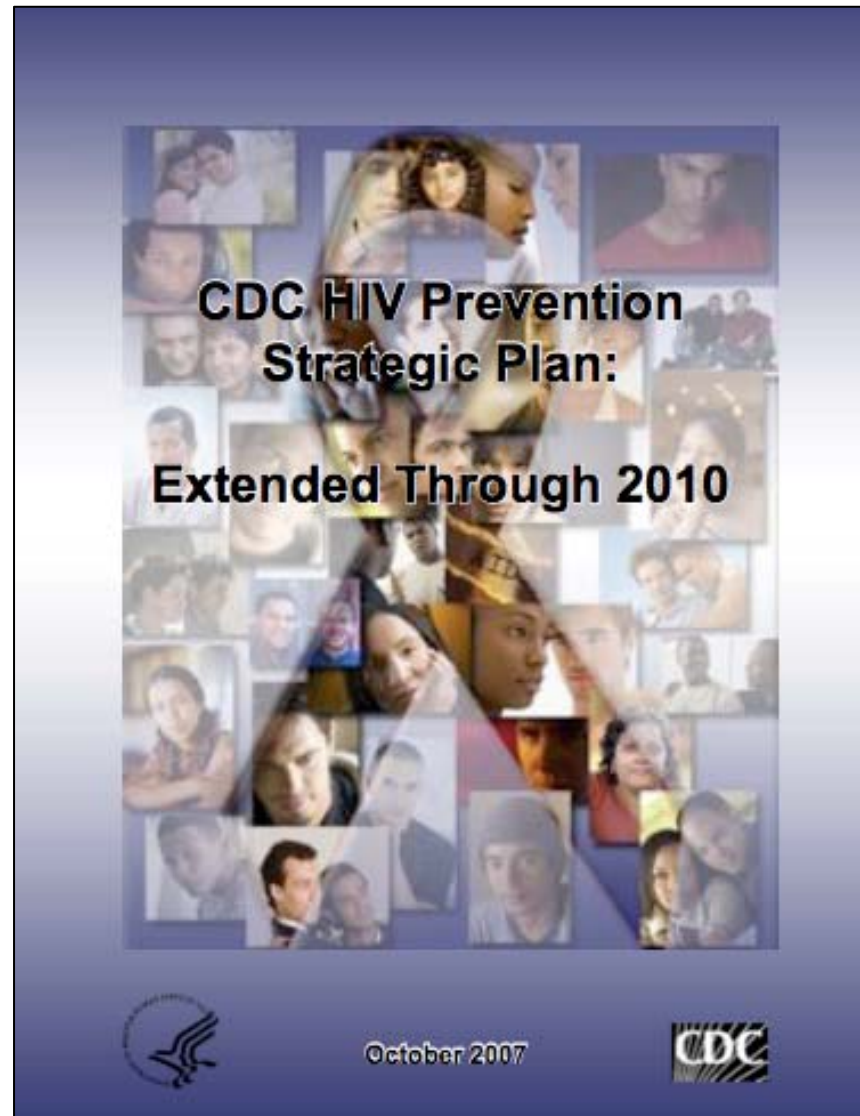
	<i>Opt-out Testing Only</i>	<i>Opt-out Testing with Behavioral Offset</i>	<i>Routine Counseling and Testing</i>	<i>Targeted C & T (à la Pres. FY07 \$93m language)</i>
No. tested	65,520,000	65,520,000	65,520,000	29,868,308
No. undiagnosed HIV+ reached	56,940	56,940	56,940	188,170
No. high risk HIV-reached	Not relevant	7,649,048	7,649,048	14,636,964
Total program costs	\$864,207,288	\$864,207,288	\$1,419,250,220	\$864,207,288
Transmissions averted	3,644	3,644	3,644	12,043
Infections averted	Not relevant	(569)	1,689	2,510
Total avoided infections	3,644	3,076	5,333	14,553
Gross cost per avoided infection	\$237,149	\$280,993	\$266,128	\$59,383
Public support for HIV care 1 yr	\$961,335,502	\$961,335,502	\$961,335,502	\$3,176,937,598

Potential Impact on HIV Incidence of Three Program Types



*Disease elimination program essentially unrelated to knowledge of serostatus

Most Wanted: A National Strategic AIDS Plan



What Changed?

- Earlier plan: CDC HIV Prevention Strategic Plan, 2001-2005
 - “the *2001 Plan* was never fully implemented and HIV prevention resources in the United States declined slightly through 2005”
- CDC identified a short-term goal through 2010; 4 original goals are now short-term milestones.
- Modified short-term milestones 1-3 and extended all four milestones to 2010.
- Incorporated 12 new objectives and 13 modified objectives.

What's New?

- Made more explicit the focus on African American and MSM communities
- Added new objectives to address advances in understanding about acute HIV infection, the role of incarceration in the HIV epidemic, and technical advances in HIV rapid testing
 - underscore the priority to increase HIV screening in medical care settings
 - reflect recent data about disparities in knowledge of one's HIV infection, especially among MSM

What's Missing?

- Counseling: completely decoupled from testing (routine testing)
- Condoms
- Community *leadership* in science: as HIV moves away from a community-led approach to a biomedical paradigm, we risk losing:
 - Innovation
 - Community-specific approaches
 - Passion

What's Missing? (con't)

- Comprehensive linkages for HIV- to substance abuse treatment, STI services, and family planning
- Effective programming for IDUs (focus on abstinence and limited harm reduction)
- Larger, community- and society-level interventions
- Structural interventions
- *Creativity* or *innovation* → **Vision**

It all Boils Down to...

- *Este disco esta rayado* (the record is scratched)....
 - Political will to implement evidence-based, proven effective interventions
 - Desire to address limited social capital
 - Capacity to embrace the need for customized, client-specific approaches
 - Mental capacity to understand that prevention is NOT a vaccine! Multiple, serial doses are critical to maintain and sustain behavior change
 - Action to combat STIGMA & discrimination
- *Missed Opportunities?* Not an oops...**Crimes against humanity!**

DOA or Waiting Regime Change?

- **Strategic intervention selection vs. Convenience shopping** (need support for HDs/CBOs on how to choose and/or prioritize)
- **Gay Men/MSM** (need for explicit new focus, new community mobilization, new approaches, and better research)
- **IDUs** (needle exchange, and more...need to focus on non-needle approaches, access to drug tx., policy & SAMHSA)

DOA or Waiting Regime Change? (con't)

- **HIV among communities of color** (Heightened National Response for African Americans....)
- **Hepatitis, gonorrhea, syphilis...oh my!** (need to incorporate linkages with HIV prevention)
- **CDC GAP is promoting a gap** (global funds should provide tangible benefits in the U.S.; need to examine & apply North-South, East-West learning)
- **APATHY** (September 11th exacerbated drops in funding and support, prevention is not sexy...
after 20 years we have lost focus...
where is the urgency?)

We Still Cannot Answer

- What are the most effective interventions or “mix of interventions” for high-risk target populations beyond individual level?
 - State or regional level
 - City Level
 - Community or neighborhood level

**“Never give up,
for that is just the place
and time that the tide
will turn.”**

Harriet Beecher Stowe

Conclusions: *A Wish List* for 2009

1. Fully supported HIV prevention in the US
2. A real, comprehensive, dynamic understanding of all health challenges facing persons living with HIV
3. Fully supported HIV treatment in the US
4. Fully supported stable housing in the US
5. A bold, real comprehensive national HIV/AIDS plan
6. National leadership that is passionate, knowledgeable and happy to be accountable

Conclusions: *A Wish List* for 2009 (continued)

7. Testing, yes....but so much more
8. A comprehensive surveillance system that helps us target, evaluate and optimize HIV/AIDS programs
9. Research that emphasizes external validity (and focuses on implementation science)
10. Recognition that even if a “chronic disease,” prevention is still important and crucial

Last Words

Most of all, we must use our individual voices to galvanize national skill and national will to ensure that there is no longer an HIV infection as frequent as every 13 minutes, and an AIDS funeral as frequent as every half hour...this epidemic is still an emergency

