

# New Directions in HIV Prevention

Grant Colfax, MD

Director of HIV Prevention

San Francisco Department of Public Health  
Care Council

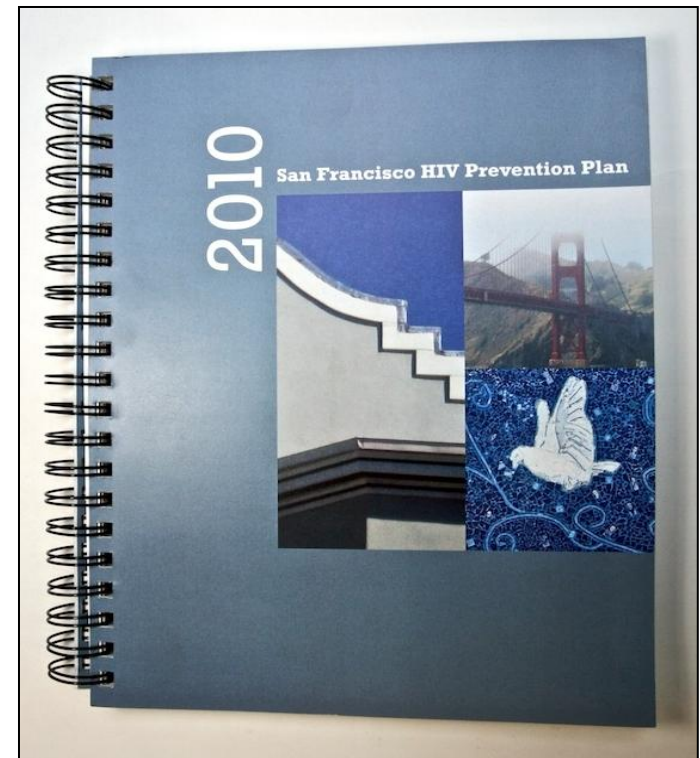
May 24, 2010

SAN FRANCISCO DEPARTMENT OF PUBLIC HEALTH  
HIV PREVENTION SECTION



# HIV Prevention 2010: from the Plan to Practice

- Our vision is to end new HIV infections in San Francisco
- Our goal is to reduce new HIV infections by 50% by 2015
  - We will focus efforts in populations at the greatest HIV risk: males who have sex with males, injection drug users, and transfemales who have sex with males
  - We will focus efforts in populations with large HIV disparities: African-American males who have sex with males, transfemales who have sex with males



# Chronology

2010 HIV Prevention Plan completed  
(October 2009)



2010 HIV Prevention Plan released  
(February 2009)



HPS New Directions in HIV  
Prevention presented  
(February 2010)

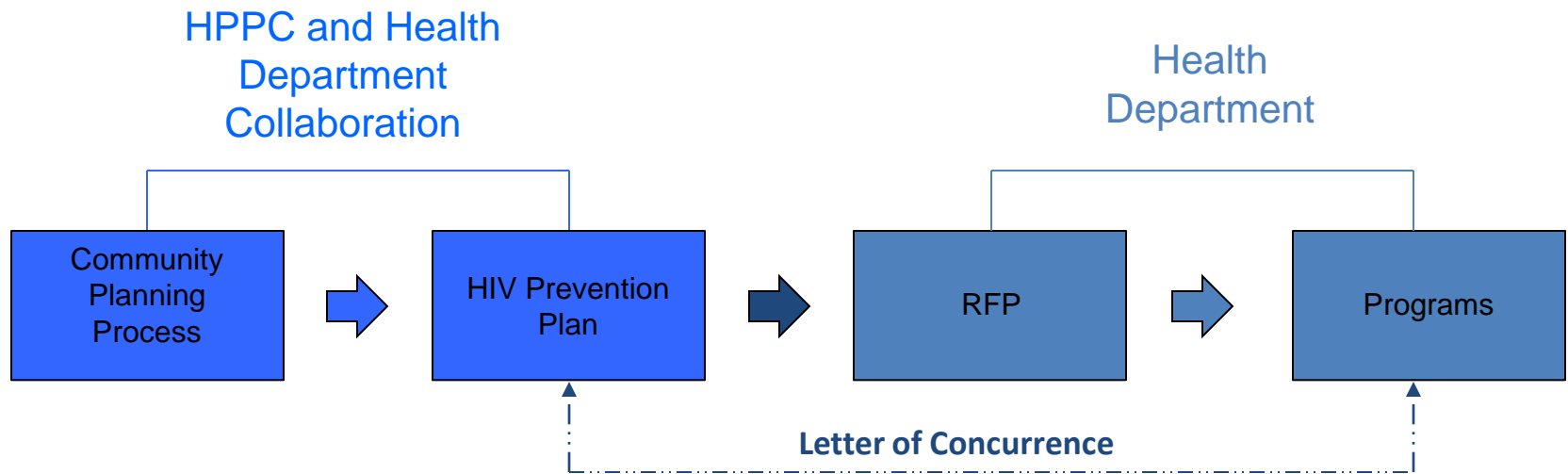


Community/provider feedback on  
New Directions  
(February - April 2010)



**HPS response to community/  
provider feedback on New Directions  
& continued dialogue  
(May 2010)**

# HPPC and DPH Roles



Q: How does the HPPC ensure that the health department implements the priorities outlined in the HIV Prevention Plan?

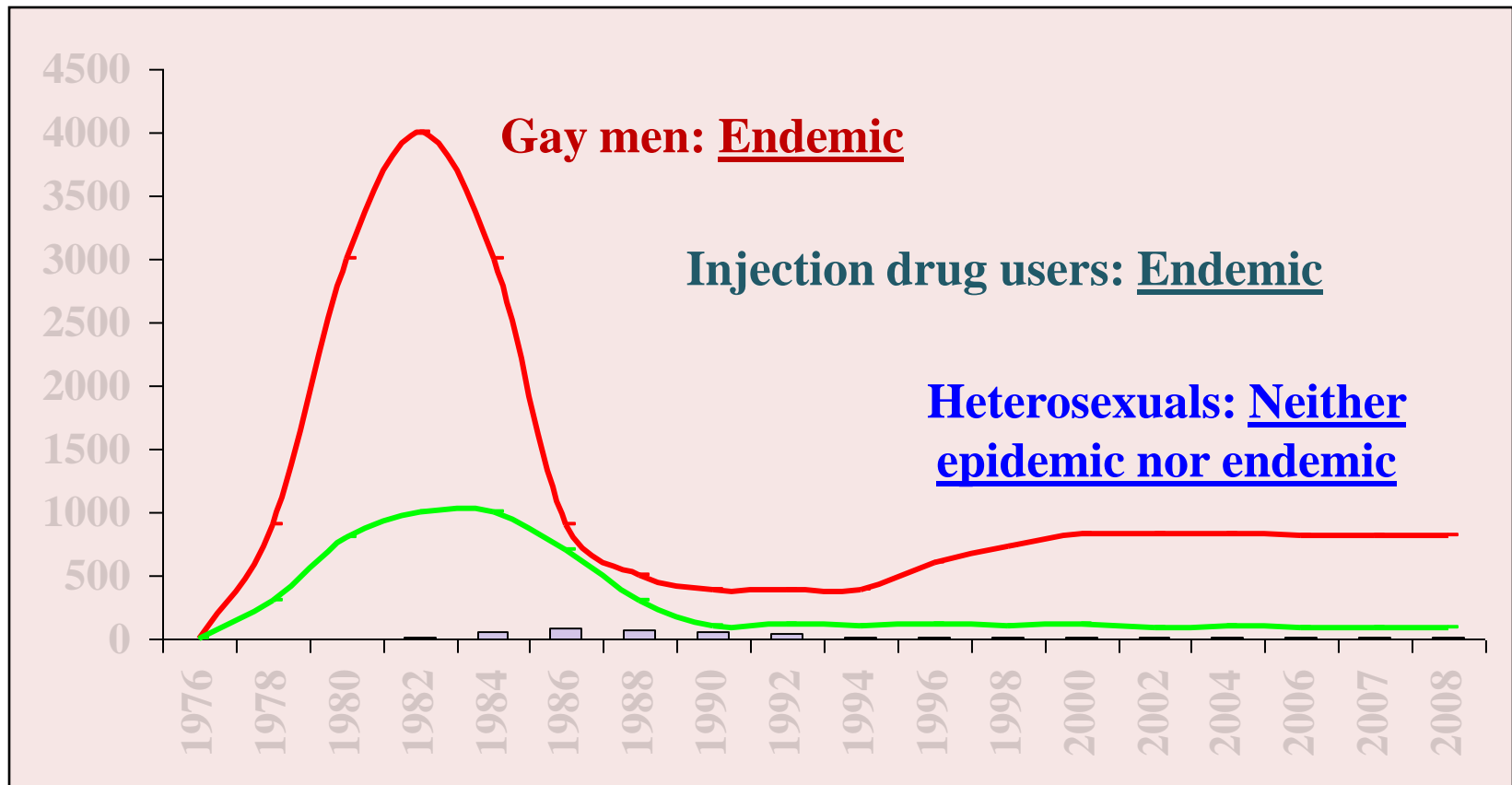
A: Through the Letter of Concurrence process, in which the HPPC provides a written response describing whether the health department application does or does not, and to what degree, agree with the priorities in the Plan.

# HIV Prevention Section

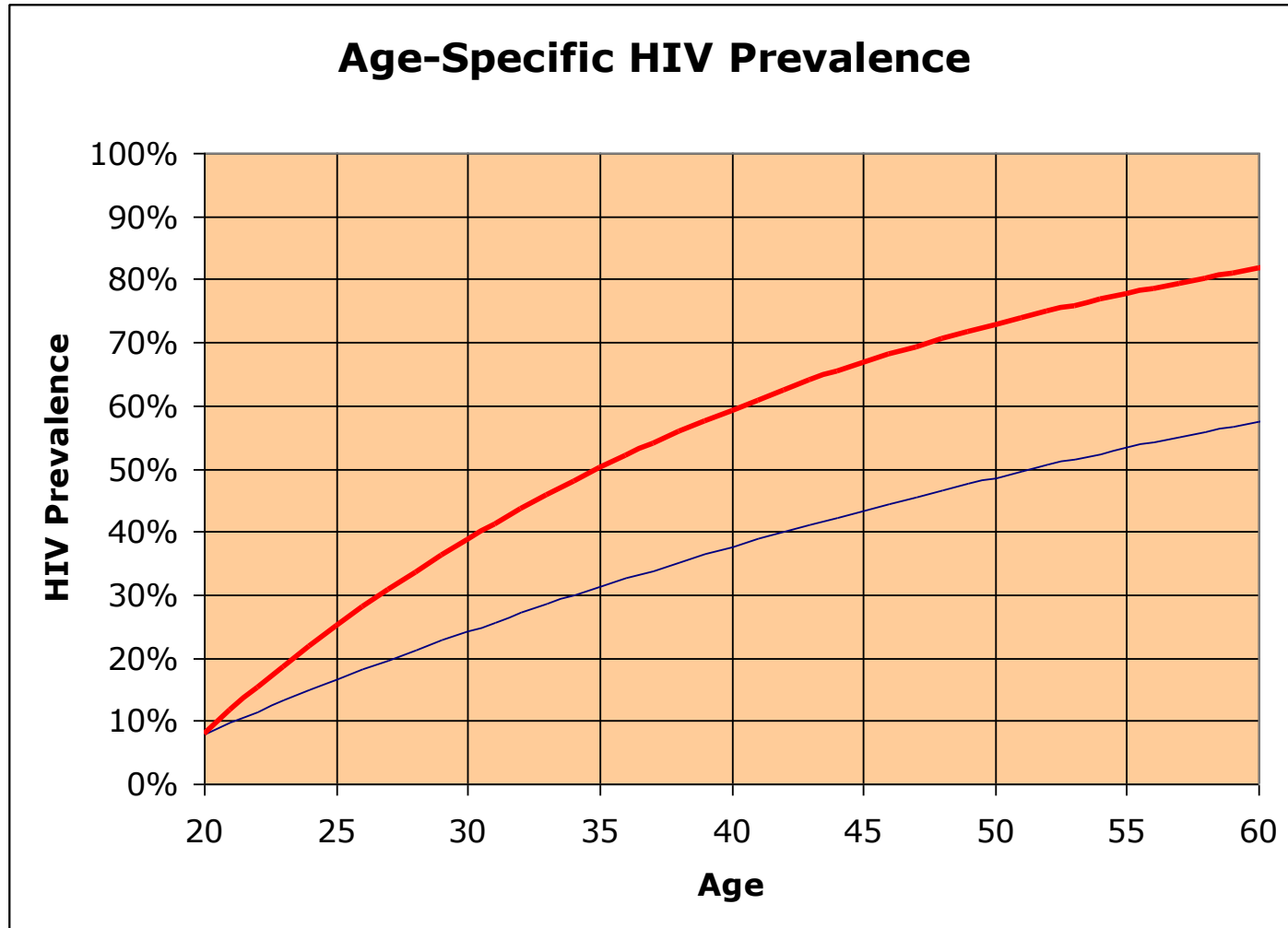
## Core functions

- Partners with 37-member HIV Prevention Planning Council
  - Emphasis on community-based input and feedback to set priorities
- Contracts with CBOs and other agencies to provide prevention programs
  - Allocates funding in accordance with distribution of HIV epidemic
  - Monitors and evaluates who we are reaching with prevention services
  - Runs condom distribution program (1 million/year)
- Supports agencies in delivery of prevention work
  - Oversees testing, counseling, and linkages to care (17,000 HIV tests annually)
  - Assists agencies in delivery of interventions
  - Coordinates and implements health education initiatives
- Conducts prevention research
  - Develops and tests new prevention interventions
  - Performs needs assessments of specific populations
  - Disseminates research findings to prevention providers and community members
- Advocates for improved HIV prevention and treatment policy
  - Involves local, state, national stakeholders
  - Addresses both fiscal and legislative issues

# Our endemics



# Relentless inevitability of infection among San Francisco MSM



Blue line = probability of infection for white MSM; red = AA MSM; McFarland 2007

# New Directions for HIV Prevention

*HPS will focus on priority areas in plan*

In order to reduce new HIV infections by 50% by 2015, the HIV Prevention Plan prioritizes five areas:

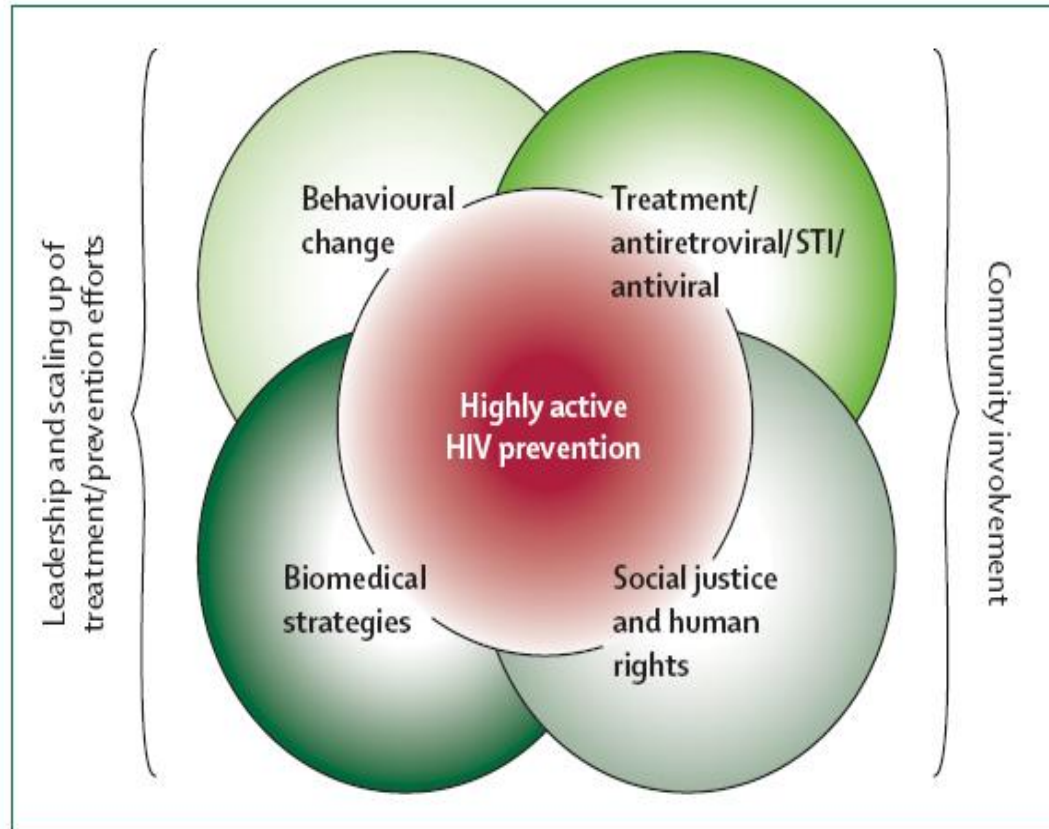
- HIV status awareness
- Prevention with positives (PWP)
- Syringe access
- Drivers of HIV
- Structural change

*Source: HPPC, 2010 San Francisco HIV Prevention Plan*

# Resource Allocation by BRP

- Men who have sex with men: 70-79%
- Injection drug users: 15-20% (approx. half for MSM IDU)
- Transfemales who have sex with males: 5-8%
- Females who have sex with males: 1-4%
- Men who have sex with females: <1%

# Combination prevention remains critical...



**Figure 1: Highly active HIV prevention**

This term was coined by Prof K Holmes, University of Washington School of Medicine, Seattle, WA, USA.<sup>5</sup> STI=sexually transmitted infections.

... and increasing emphasis on testing and treatment *outcomes* is important

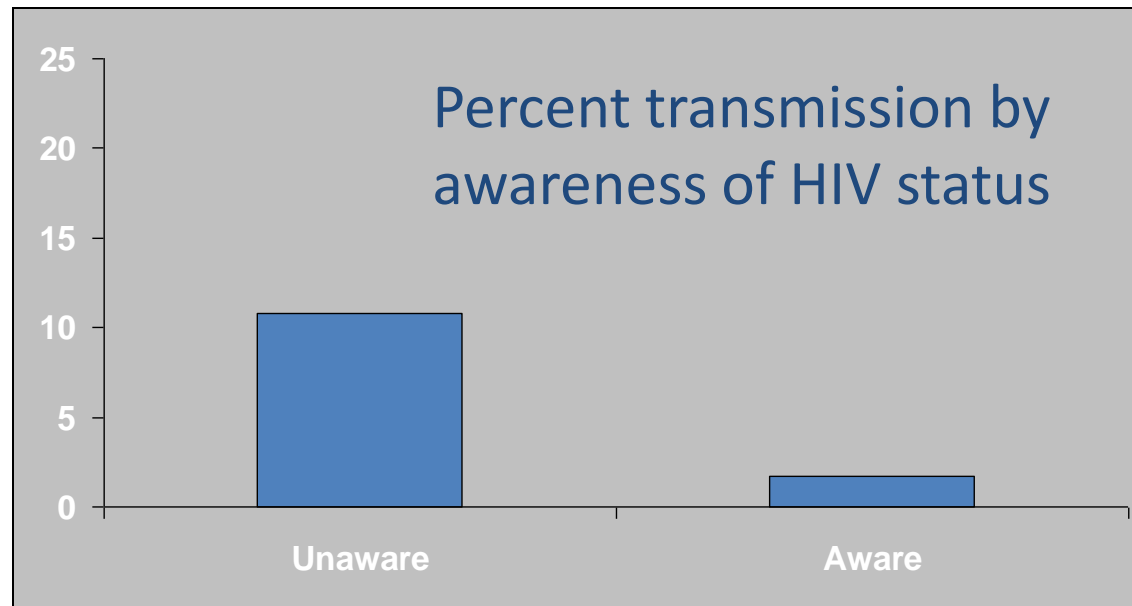
<b>Infections Averted</b>		<b>Tx&lt;500</b>	<b>Tx All</b>	<b>Test &amp; Tx All</b>
2014		1,554	2,169	2,810
2019		3,102	4,550	6,040
2029		4,940	8,221	12,189
<b>Percent Reduction in New Infections</b>		<b>Tx&lt;500</b>	<b>Tx All</b>	<b>Test &amp; Tx All</b>
2014		42%	59%	76%
2019		42%	61%	81%
2029		33%	55%	81%

# Focus Area #1: HIV Status Awareness

- What will be emphasized?
  - New testing models, including those addressing fear, stigma, and other barriers to testing
  - More partner notification by DPH
  - More detection of early infection by using advanced testing technology
- Indicators of success:
  - Positivity rate and number of new positives identified
  - Frequency of testing among high-risk populations
  - Linkage to medical care for HIV-positive individuals

# Clinical and Public Health Goals of Diagnosing HIV infection

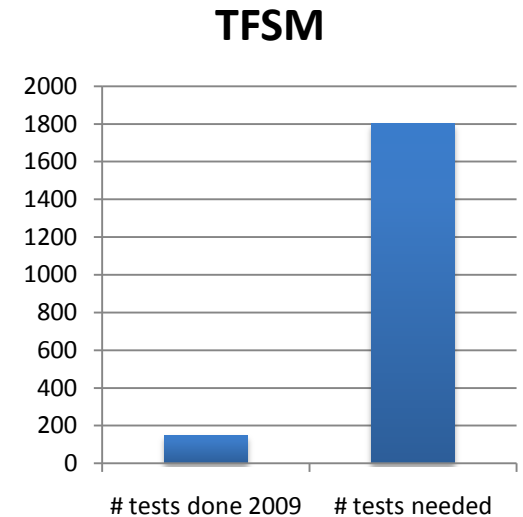
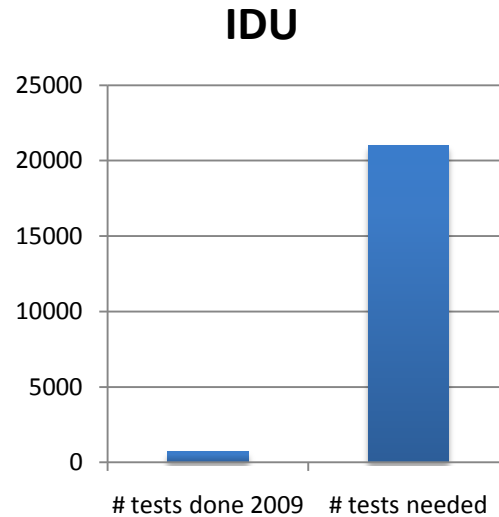
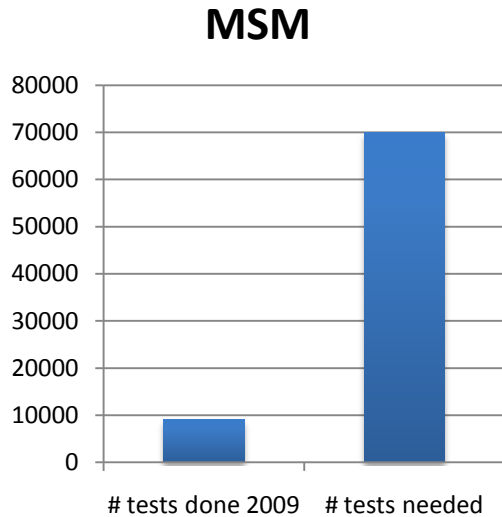
- Decrease transmission
- Linkage to care
- Partner notification and testing



Holtgrave, et al., *Int J STD AIDS*, 2004; Marks, et al., *JAIDS*, 2005; Bartlett, *MedScape Today*, 2007.

Slide from: Susan Philip

# Need for Increased Testing



## Assumptions:

- Population size estimates from the Plan
- Does not include people who are HIV+
- Assumes 80% are high-risk (assume 20% non-sexually active)
- Goal: All high-risk people test two times a year

## Test volume by site for 2007 and 2008 conventional testing\*

	2007		2008		Estimate # of active patients	Estimate % of patients tested in 2007	Estimate % of patients tested in 2008
	SFGH Lab	Micro-biology Lab	SFGH Lab	Micro-biology Lab			
Castro-Mission HC	178		231		3,908	4.6%	5.9%
Maxine Hall HC	209		326		3,717	5.6%	8.8%
Silver Avenue HC	217		274		3,664	5.9%	7.5%
Chinatown Public HC	171		151		5,053	3.4%	3.0%
Ocean Park HC	32		43		2,957	1.1%	1.5%
Potrero Hill HC	229		334		2,648	8.6%	12.6%
Southeast HC	430		611		3,572	12.0%	17.1%
Tom Waddell HC	263	517	518	753	5,398	14.4%	23.5%
Curry Senior Center	43		78		1,396	3.1%	5.6%
Cole Street Youth	13	32	24		971	4.6%	2.5%
Larkin Street Youth	25	17	38	22	802	5.2%	7.5%
Balboa Teen HC	4		3		175	2.3%	1.7%
Housing/Urban Health	377		397		1,147	32.9%	34.6%
Children's Health -6M	195		232		8,522	2.3%	2.7%
Positive Health	248		179		2,378	10.4%	7.5%
Family Health Center	932		1,280		10,294	9.1%	12.4%
GMC	538		566		5,417	9.9%	10.4%
<b>Total</b>	<b>4,104</b>	<b>603</b>	<b>5,285</b>	<b>811</b>	<b>62,019</b>	<b>7.6%</b>	<b>9.8%</b>

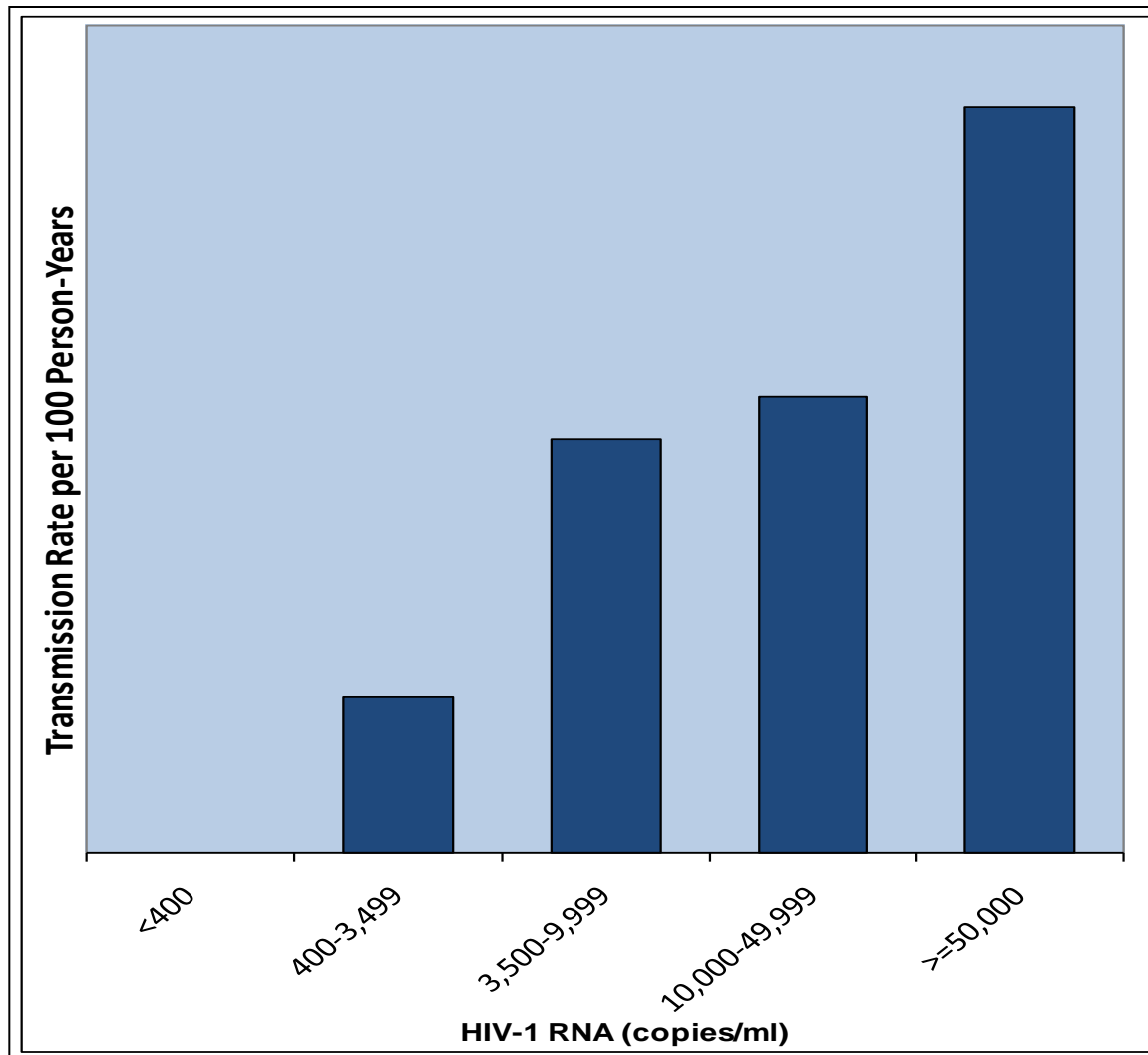
\*Figures do not include the 678 point of care tests performed in one clinic in 2008

Source: Janet Myers, et al., 2010

# Focus Area #2: Prevention with Positives (PWP)

- What will be emphasized?
  - Results that measure positive health outcomes
  - Increased PWP in HIV medical care settings
  - Focus on persons at high-risk for transmitting HIV
  - Models that address barriers to care, including stigma, fear, discrimination, etc.
- Indicators of success:
  - Engagement and retention in care
  - Treatment adherence
  - Viral load suppression

# Viral Load and Risk of Transmission

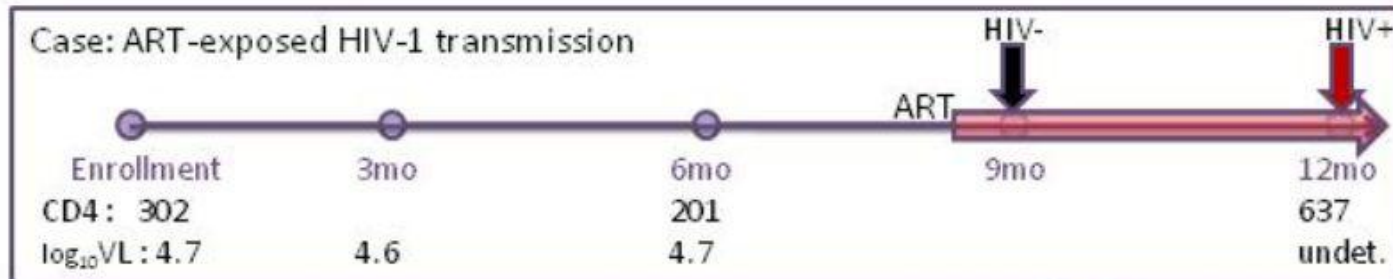


# ART and HIV-1 transmission

	Linked HIV-1 infection	Person Years	Rate	95% CI
No ART initiated	102	4558	2.24	(1.84-2.72)
After ART initiation	1	273	0.37	(0.09-2.04)

Unadjusted Relative Risk = 0.17 (95% CI 0.004, 0.94) , p = 0.037  
 Adjusted\* Relative Risk = 0.08 (95% CI 0.002, 0.57), p = 0.004

\* For time on study and CD4 count



UNIVERSITY OF WASHINGTON  
 INTERNATIONAL CLINICAL RESEARCH CENTER  
 PARTNERS IN PREVENTION

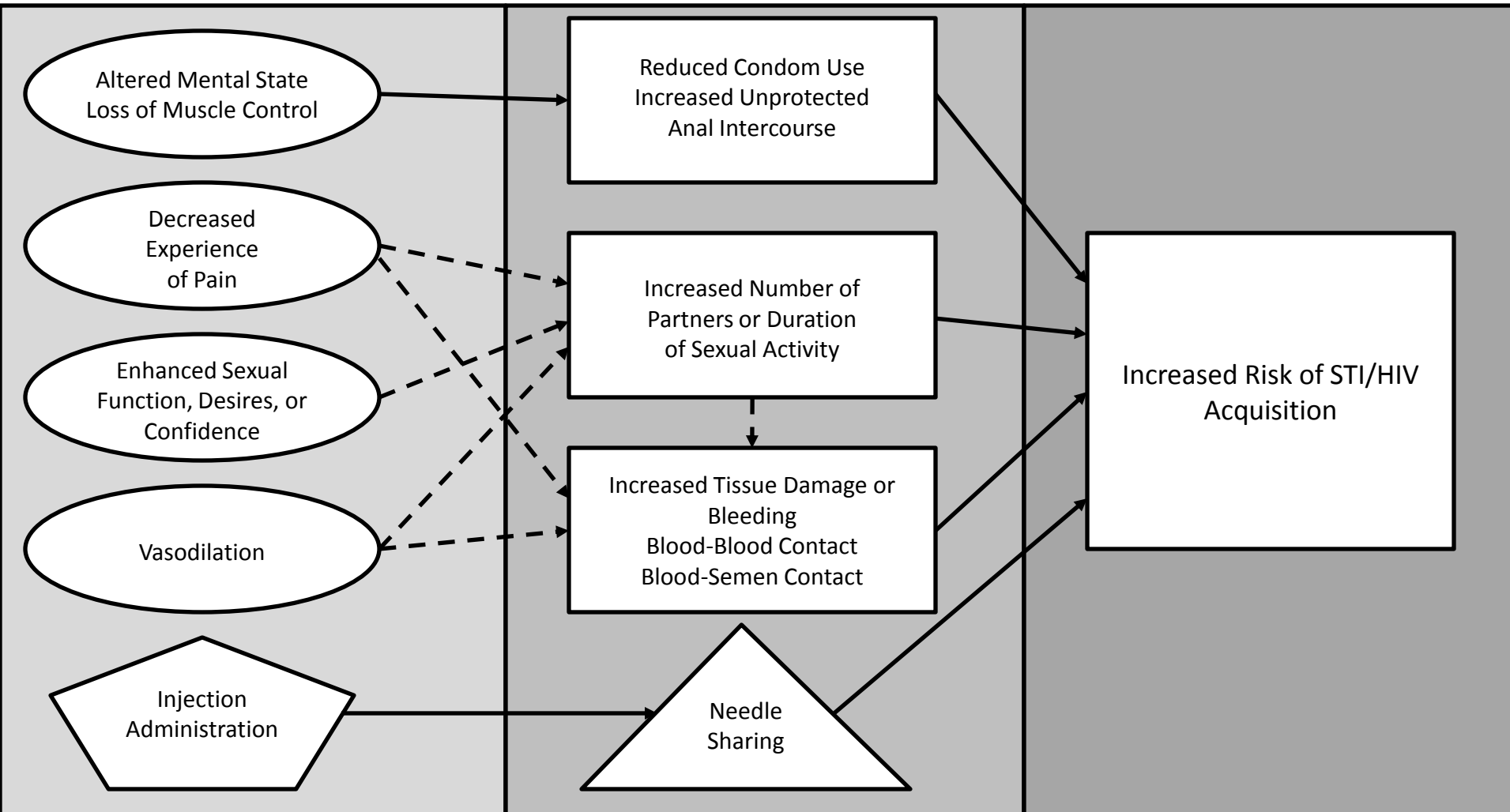
# Focus Area #3: Syringe Access

- What will be emphasized?
  - Harm reduction
  - Provision of support services with syringe access
- Indicators of success:
  - Number of syringes/sterile equipment distributed
  - Number of contacts made

# Focus Area #4: Drivers of HIV

- Plan definition of a driver:
  - Prevalence of 10% or greater in highest-risk populations
  - Independently associated with a minimum 2-fold increase in risk for HIV infection
- What will be emphasized? Drivers in the Plan:
  - Cocaine/crack
  - Methamphetamine
  - Poppers
  - Gonorrhea
  - Heavy alcohol use
  - Multiple partners
- Indicators of success for programs focusing on drivers:
  - Linkage to testing
  - Linkage to care
  - Reduction in drivers
- All HPS-supported programs will focus on one or more drivers

# Conceptual Model: Substance Use as a Causal Factor for HIV



# Trends in Substance Use, San Francisco

<b>NHBS Drug Use Data, San Francisco</b>						
		<b><u>2004</u></b>			<b><u>2008</u></b>	
<b>Drug</b>	<b>Ever</b>	<b>≥</b>	<b>Weekly</b>	<b>Ever</b>	<b>≥</b>	<b>Weekly</b>
Methamphetamine	22%		6%	13%		3%
Cocaine	17%		2%	24%		2%
Crack	4%		1%	4%		1%
Hallucinogens	5%		.06%	9%		0
Poppers	20%		5%	19%		4%
Heroin	.3%		0	.6%		0

# Intertwining Epidemics among Urban MSM

(Significant OR estimates, controlling for age, education, race, income, HIV status and sexual risk)

	<b>Childhood Sex Abuse</b>	<b>Partner Violence</b>	<b>Depression</b>	<b>Substance Abuse</b>
<b>Childhood Sex Abuse</b>	-----	1.9	1.9	
<b>Partner Violence</b>	1.9	-----	1.6	2.2
<b>Depression</b>	1.9	1.6	-----	1.4
<b>Substance Abuse</b>		2.2	1.4	-----

# Focus Area #5: Structural Change

- Plan definition: “New or modified programs, practices, or policies that are logically linkable to HIV transmission and acquisition and that can be sustained over time even when key actors are no longer involved.”
- What will be emphasized?
  - HIV and STI screening and referral as standard of care in medical settings for persons at risk for HIV
  - Universal healthcare coverage for PLWHA
  - Non-harassment policies for drug paraphernalia
  - Client-level linkages to Healthy SF for comprehensive healthcare across all our HIV prevention programs
- Outcome: Structural changes that positively influence one of the other focus areas, or that are associated with declines in HIV incidence

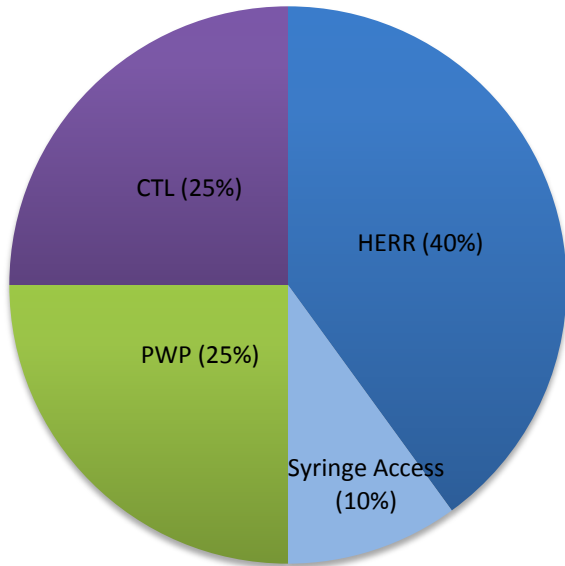
# Ensuring coordination and linkages of services

- Moving towards a name-based reporting system
  - Necessary to examine linkage and coordination of services across programs
  - Allows follow-up of clients over time who may access different services at different times
  - Valid concerns re: confidentiality, burden, cost - these will be addressed
- Together we can do this: CTL, HIV Health Services, all DPH clinics, Behavioral Health programs have name-based reporting systems

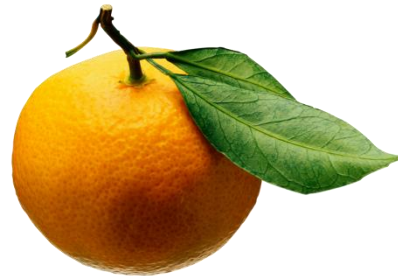
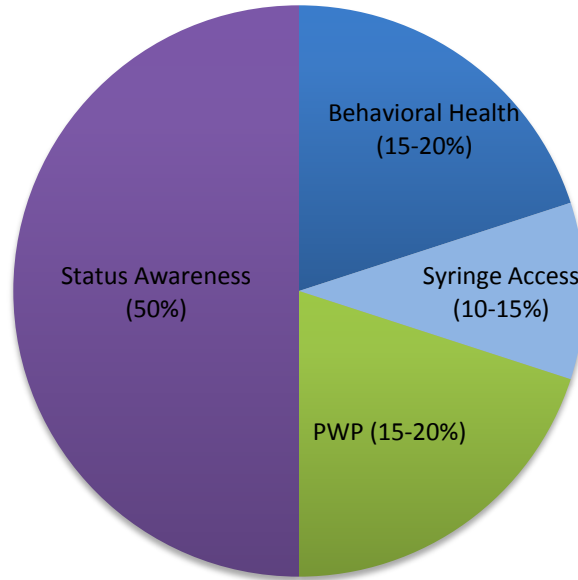
# Provider/Community Input

- 2 public meetings
- 4 provider meetings
- 2 HPPC meetings
- 2 health disparities meetings:
  - African American Action Plan working group
  - Transgender Advisory Group
- Presentations/discussions by request
  - Health Commission, HIV/AIDS Providers Network (HAPN), Latino providers
- One-on-one meetings with Grant and other HPS staff

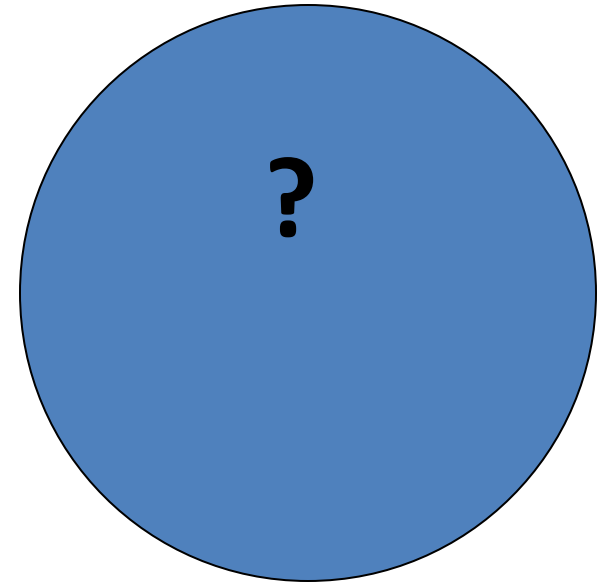
## 2005-present



## Original New Directions Proposal



## Revised New Directions Proposal



- Will better represent HERR efforts
- Will include new HERR to address gaps

# Next steps...

- Ongoing community and provider meetings to discuss and get input on these direction
- Refinement of data systems to collect programmatic outcome data
- RFP release in 2010, new contracts in 2011

# Conclusion

- The New Directions represents a structural approach to addressing new HIV infections
- The new directions represents the canvas for 2010 and beyond...We want to paint the picture together

