

Improving Safe Sex Interventions for MSM

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Presentation Goals

- **To summarize current HIV risk among MSM**
- **To review the efficacy of HIV prevention efforts among MSM**
- **To show that the actions of HIV prevention efficacy are not addressing cutting edge prevention questions as raised by MSM**
- **To argue the necessity for a prevention cocktail that taps multiple mechanisms of prevention efficacy**

Does HIV Prevention Among MSM Still Work?

- Strong media attention given to:
 - Ongoing reports of STI outbreaks
 - Reports of new forms of “unsafe sex”
 - Very high HIV prevalence and incidence data among minority MSM communities
- Far less attention given to relatively low levels of funding support for HIV prevention among gay men in the US

What are the Current Rates of HIV Incidence Among MSM?

- Debate framed around a few fundamental questions:
 - Are HIV infection rates over time among MSM? If not, why not?
 - How can high incidence rates of HIV infection be explained among African American MSM?
- **Less attention has been devoted to the question of what current incidence rates will yield over time.**

Summarizing Incidence Estimates among MSM

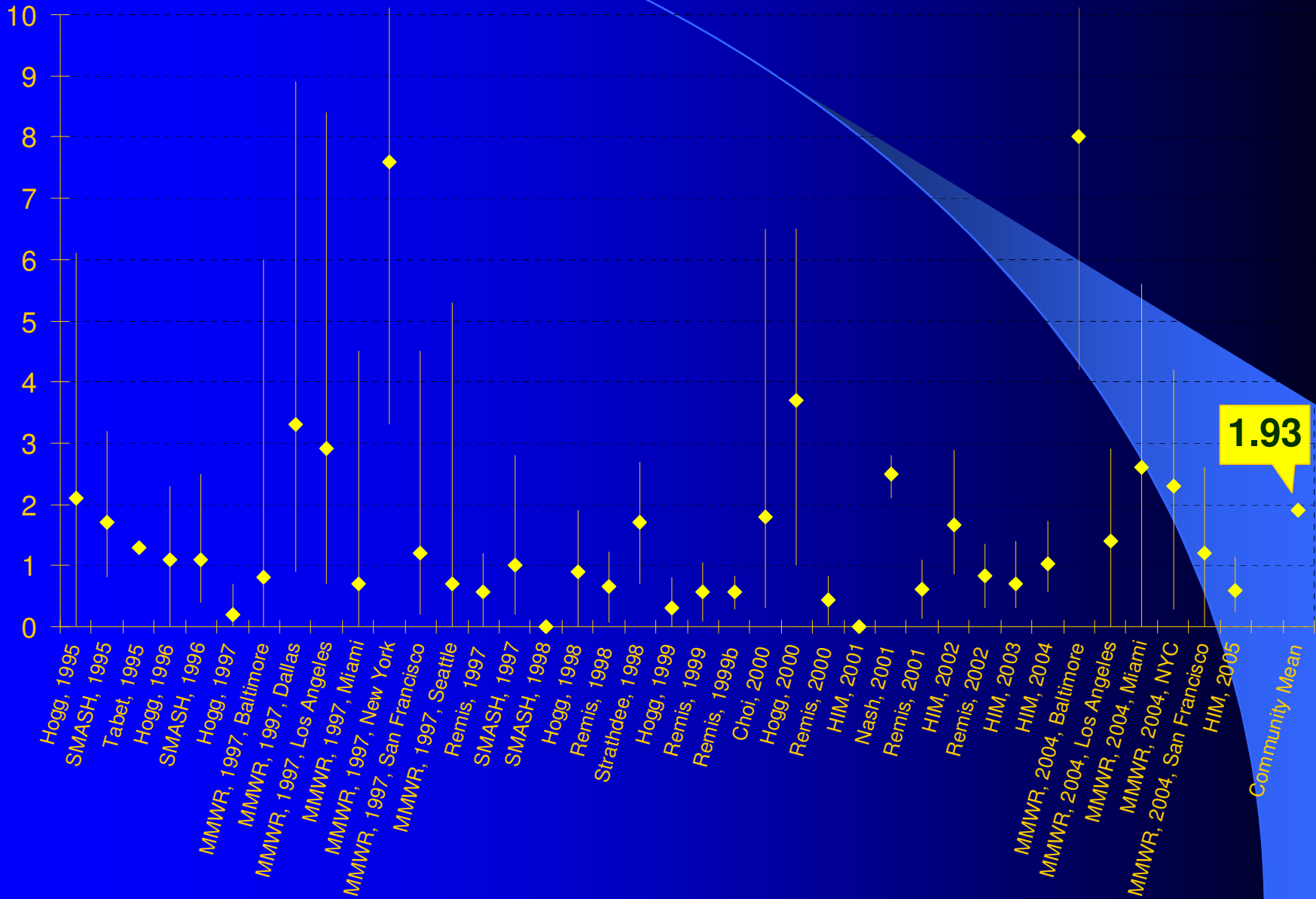
- Computerized literature review : Google Scholar, PubMed, ISI Web of Science, Scopus
- HIV incidence, MSM, Gay Men, HIV seroconversion
- Correspondence with leading researchers in the field to identify unpublished data

22 Independent Studies

90 Annual Incidence Estimates

- **Community-Based Samples**
 - 10 independent studies; 32 incidence estimates
- **HIV Test Sites Samples**
 - 5 independent studies; 31 incidence estimates
- **STD Clinical Samples**
 - 7 independent studies; 27 incidence estimates

HIV Incidence in MSM: 32 Community-Based Incidence Estimates



Mean Published Incidence Estimates among MSM, 1995--

- Community-Based Samples **1.93%**
 - HIV Test Site Samples **2.24%**
 - STD Treatment Samples **2.93%**
- 

With 1.9% incidence, what will the burden of HIV disease be within a cohort of MSM now aged 20?

8% prevalence rate of HIV infection at age 20
(MMWR, 2001)

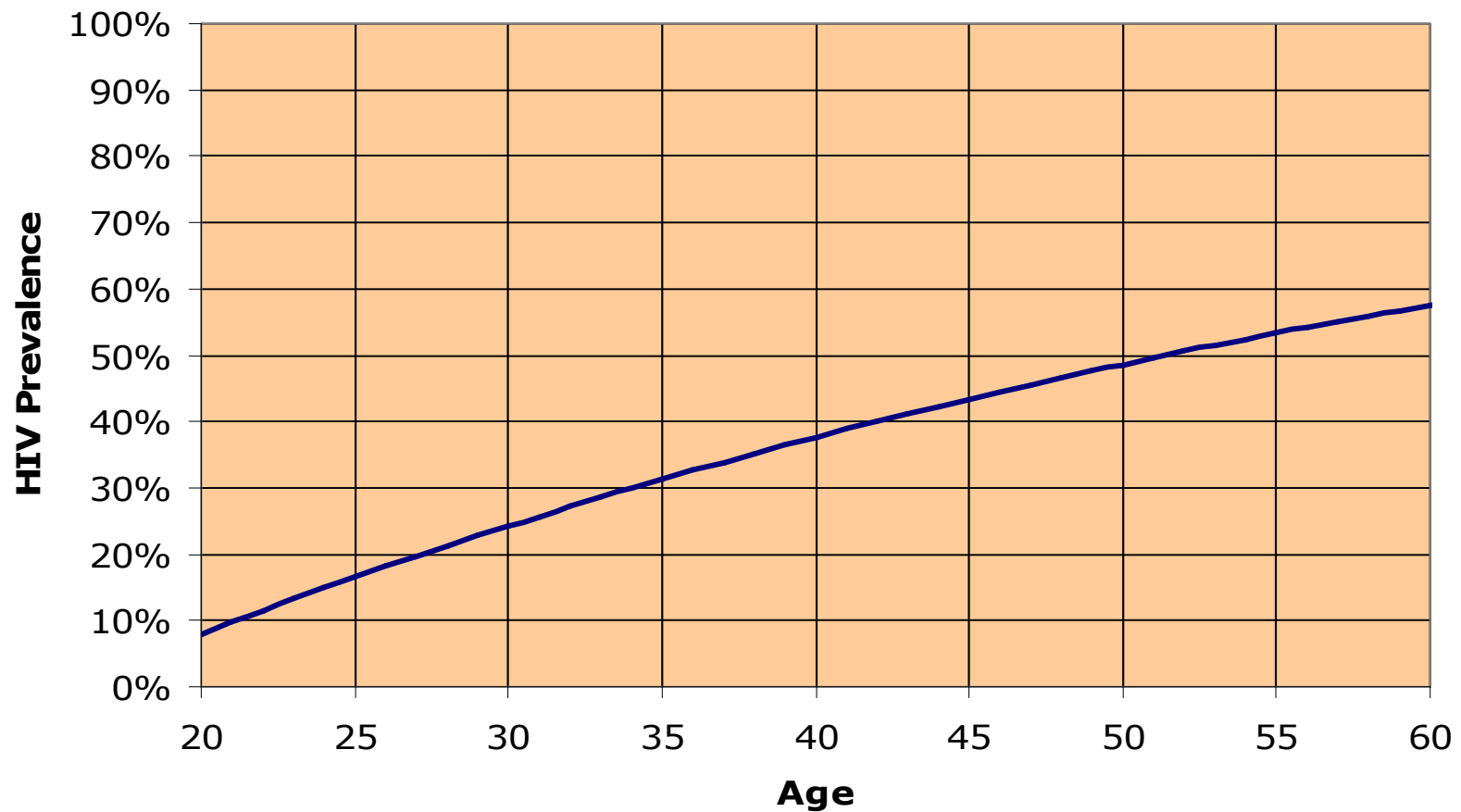
No mortality due to HIV through age 60

Identical non-HIV mortality rates to other men in the US population

MMWR (2001) HIV incidence among young MSM – 7 US Cities, 1994-2000.

Burden of HIV Disease Among MSM: HIV Incidence Rate of 1.9%

Age-Specific HIV Prevalence



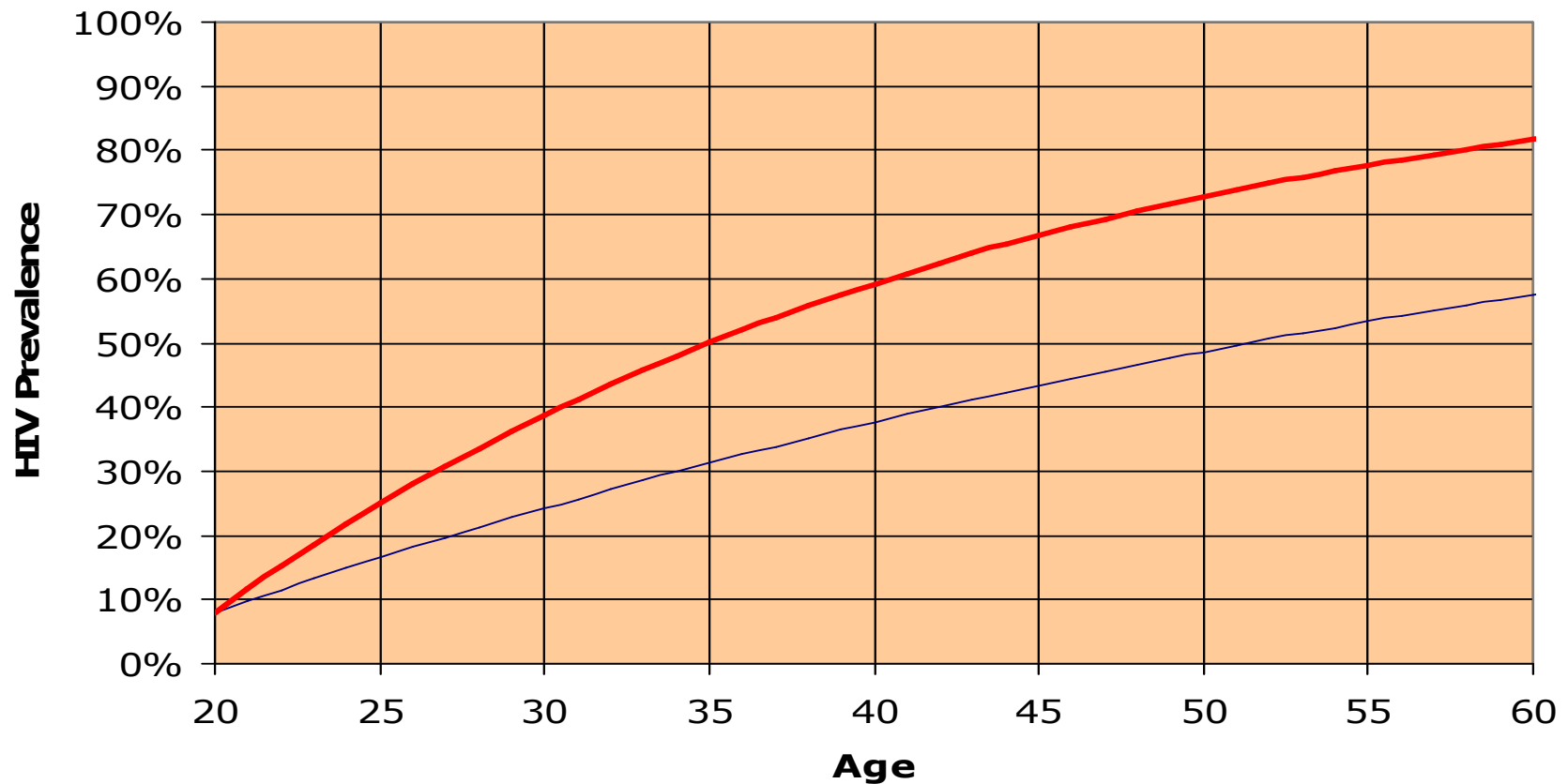
HIV Incidence is High Among African American MSM

- HIV *incidence* among African American men aged 15-22 **4%**
- HIV *incidence* among African American men aged 23-29 **15%**

MMWR, HIV incidence among young MSM – 7 US Cities, 1994-2000, June 01, 2001

African-American MSM Cohort: HIV Incidence Rates of 4.0%

Age-Specific HIV Prevalence



African American MSM have very high HIV prevalence rates

HIV infection and Unrecognized Infection

among MSM, 5 US Cities, aged ≥ 18 :

Black, Non-Hispanic	46%	(67%)
White, Non-Hispanic	21%	(18%)
Multiracial	19%	(50%)
Hispanic	17%	(48%)
Other	13%	(50%)

MMWR, HIV Prevalence, unrecognized infection and HIV Testing among MSM
– 5 US Cities, June 2005, April, 2005, June 24, 2005.

Is HIV Prevention Efficacious Among MSM?

- 2 recent meta-analyses of published RCT trials
- Herbst (2005) review reported a:
 - 23% decrease in UAI
 - 15% decrease in numbers of sex partners
 - 61% increase in protected AI
- Herbst, J. et al., JAIDS 2005 39(2):228-241.
- Johnson, W., et al, AIDS: E&P 2005 17(6): 568-590.

HIV Behavioral Interventions Reduce Risk

- Interventions worked better if:
 - Theory based
 - Group discussions
 - Multiple (4+) message delivery methods
 - Interpersonal skill building
 - Greater intervention exposure
- Bottom line: HIV interventions can work if they are well funded and well fielded.

Two Worlds of AIDS Prevention

- Incidence rates for new HIV infections are very high among MSM
- Model HIV prevention interventions work in experimental settings.
- Is something lost in the translation to MSM communities?

Ongoing Challenges to Prevention Efforts Among MSM

- **Information: What is risk?**
 - poz/poz sex, positional strategies, negotiated safety, negative viral loads, PREP?
- **Information: Which information matters?**
 - Skill sets and knowledge of own goals in sex vs. memorization of risk calculus
- **What are the motivations for safe sex?**
 - Who bears the responsibility for safety? How does safety work in a world without disclosure?

What about Context?

- **Context: Do other health issues affect risk?**
 - Syndemic effects on increasing risk
- **Context: Community Viral Load**
 - Increased efficacy of social network approaches to finding unknown positives
- **Context: Addressing Violence and Racism**
 - Increased efficacy of social network approaches to finding unknown positives

Intertwining Epidemics among Urban MSM

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

	Childhood Sex Abuse	Partner Violence	Depression	Substance Abuse
Childhood Sex Abuse	-----	1.9	1.9	
Partner Violence	1.9	-----	1.6	2.2
Depression	1.9	1.6	-----	1.4
Substance Abuse		2.2	1.4	-----

Intertwining Epidemics Predict HIV Prevalence and High Risk Sexual Behavior

	No. of Psychosocial Health Problems			
	0 (<i>n</i> = 1,392)	1 (<i>n</i> = 812)	2 (<i>n</i> = 341)	3 or 4 (<i>n</i> = 129)
Recent high risk sex	7%	11%	16%	23%
HIV prevalence	13%	21%	27%	22%

All associations have p 's < 0.001. All p values are two-tailed.

From Stall et al., 2003

What about Prevention Practice?

- **Prevention Practice: Efficacy into Effectiveness**
 - Multiple challenges of translational research
- **Prevention Practice: What resources exist to support prevention in the real world?**
 - If it works, quit funding it
- **Prevention Practice: Safe sex maintenance over long periods of time**

Towards a Prevention Cocktail

- HIV prevention practice is primarily framed at the level of the individual, or at the level of a single mechanism.
- **What would HIV prevention look like if it incorporated multiple mechanisms of treatment efficacy?**

Multiple Mechanisms of Prevention Efficacy

- The individual
- Goal setting and skill building
- Identifying unknown positives
- Access to HAART for positives
- Treatment for co-morbid conditions
- Supportive policy environment for ongoing prevention (stigma, racism, adequate funding)

Depression: A Highly Prevalent Epidemic among MSM

- Additional Correlates of Depressed Mood:
 - Not having a primary partner
 - Not identifying as gay/queer/homosexual
 - ≥ 1 anti-gay violent attack in past 5 years
 - Alienation from gay community

Mills, T., et al., Distress and Depression among Urban MSM, Am J Psychiatry, 2004; 161(4):776

Would changes in domestic partnership/marriage laws lower rates of depression among gay men by:

Acknowledgment of the Depth of Our Commitments to Each Other?



Chronicle / Liz Mangelsdorf

Strengthening Connections to and Protection of Our Families?



Strengthening Connections to Our Traditions and Spiritual Lives?



Chronicle / Kim Komenich

Strengthening Connections Within Our Community?



Chronicle / Kurt Rogers

Strengthening Connections to Society at Large?



Chronicle / Paul Chinn

Conclusions

- HIV incidence rates within the published literature cluster near the 2% range among HIV testing and community based samples; at about 3% for STD clinic samples.
- Ongoing incidence rates at this level will yield very high HIV prevalence rates within each new generation of gay men.

Conclusions

- We have strong evidence to show that model HIV prevention programs that are subjected to rigorous RCT trials are efficacious.
- We have less evidence to show that these programs are being translated into field programs and disseminated widely enough to lower HIV prevalence rates among MSM.

Conclusions

- A standard set of intervention qualities are associated with intervention efficacy.
- Few of these intervention qualities directly address questions that gay men are struggling with in the third decade of the epidemic.

Current Questions, Outside the Prevention Box

- What *specifically* is risk?
- How safe do I want to be?
- What skills do I need to *maintain* safety?
- How do co-existing conditions shape risk?
- What about community viral load?
- How do I maintain safety when I'm under constant attack?

Creating a Prevention Cocktail

- Multiple mechanisms of intervention efficacy will have to be tapped to respond to such challenges over time.
- Such mechanisms will need to manipulate context.
- Intervention strategies that test multiple mechanisms of intervention efficacy must be attempted.