

# Trends and Predictors of HIV-Associated Risk Behaviors Among Injecting Drug Users Participating in an HIV Prevention Trial, Bangkok

S Vanichseni<sup>1</sup>, M Martin<sup>2</sup>, P Suntharasamai<sup>1</sup>, U Sangkum<sup>1</sup>, F van Griensven<sup>2</sup>, P Mock<sup>2</sup>, R Chuachoowong<sup>2</sup>, M Leethochawalit<sup>3</sup>, S Chiamwongpaet<sup>3</sup>, K Choopanya<sup>1</sup>

<sup>1</sup>Bangkok Vaccine Evaluation Group, Bangkok, Thailand; <sup>2</sup>Thai MOPH - US CDC Collaboration, Nonthaburi, Thailand; <sup>3</sup>Bangkok Metropolitan Administration, Bangkok, Thailand



IAS 2007  
Sydney, Australia  
July 23, 2007



# Bangkok Tenofovir Study

- BTS phase II/III randomized, double-blind, placebo-controlled study
- Objectives
  - Determine if tenofovir is safe
  - Determine if tenofovir prevents HIV infection
- Enrollment target: 2,000 HIV-uninfected IDUs
- Follow-up: follow all participants for one year once enrollment complete

# Bangkok Tenofovir Study Group



Bangkok Metropolitan  
Administration



Thailand Ministry of  
Public Health



Centers for Disease  
Control and Prevention



Department of Health  
and Human Services

# Bangkok Metropolitan Administration Drug Treatment Clinics



# BMA Clinic HIV Prevention Package

- HIV risk reduction education and counseling
  - Sexual risk reduction
  - Injection risk reduction
- Treatment for STIs and other health services
- Voluntary HIV testing
  - Pre- and post-test counseling
- Methadone maintenance
- Condoms
- Bleach



# Methods

- Demographics and risk behavior assessed at enrollment and risk behavior every 3 months during follow-up
- Risk behavior: compared proportions reporting injection and sharing at enrollment, month 3, 6, 9, 12, 15, and 18
- GEE used to identify predictors of injection and sharing

# Assessing Risk Behavior

- Risk behavior data collected by ACASI
- Injection behaviors assessed with the following questions:
  1. Have you injected any drugs in the past 3 months?
  2. In the past 3 months, did you inject with needles or syringes that someone else had used?



# Participant Demographic Characteristics June 2005 to June 2007

<b>Demographic Characteristics</b>	<b>Enrolled participants (n = 1641)*</b>
<b>Sex</b>	
Male	1289 (78%)
Female	352 (22%)
<b>Age</b>	
Median	31
<b>Education level attained</b>	
Primary school or less	784 (48%)
Secondary school	710 (43%)
Post-secondary school	147 (9%)

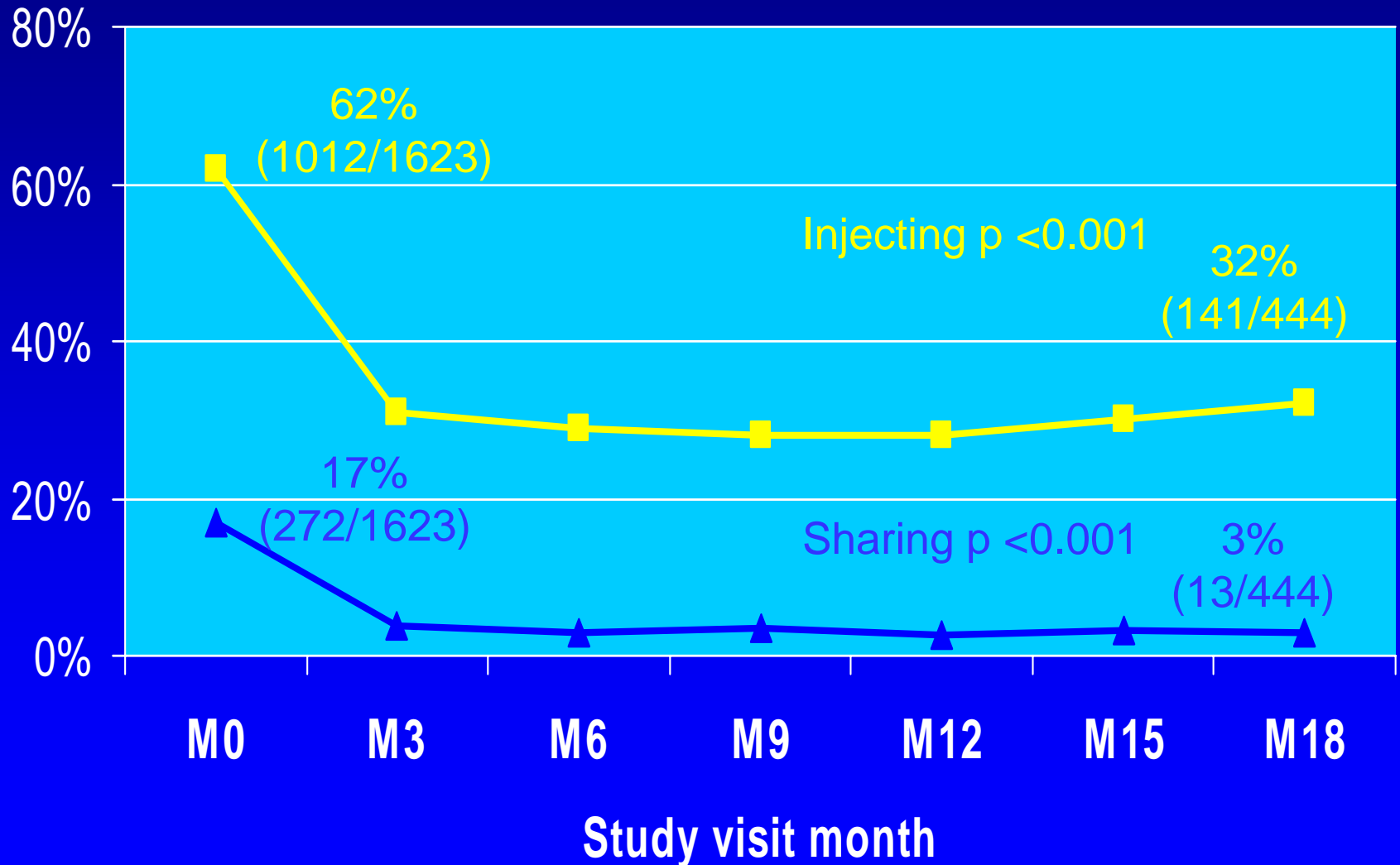
\*As of June 2007, demographic data available on 1641 participants

# Drug Use and Sexual Behavior at Baseline\*

	n (%)		n (%)
In methadone program	399 (25%)	Number of sexual partners	
Injected any drugs	1012 (62%)	None	496 (30%)
Injected methamphetamine	513 (32%)	1 partner	805 (50%)
Injected heroin	387 (24%)	≥ 1 partner	322 (20%)
Injected midazolam	378 (23%)	Number of casual partners	
Injection frequency		None	979 (60%)
Daily	133 (8%)	< 1 per month	373 (23%)
Weekly	349 (22%)	≥ 1 per month	271 (17%)
Less than weekly	530 (32%)		
Shared needles	272 (17%)		

\*During the 3 months before enrollment. As of June 1, 2007  
risk data available on 1623 participants

# Reported Injecting and Sharing During Follow-up



# Predictors of Injecting or Sharing

	Injecting		Sharing	
	Adjusted OR (95% CI)	P-value	Adjusted OR (95% CI)	P-value
<b>Sex</b>				
Females	1.0		1.0	
Males	1.8 (1.5-2.3)	<0.001	1.3 (1.0-1.8)	0.07
<b>Age</b>				
≤ 26	1.0		1.0	
> 26	1.8 (1.5-2.2)	<0.001	0.8 (0.6-1.1)	0.24
<b>Education</b>				
≤ primary school	1.0		1.0	
> primary school	1.6 (1.3-1.9)	<0.001	0.9 (0.7-1.1)	0.26

# Risk Behavior Summary

- The BMA Drug Treatment Clinics provide IDUs a package of HIV prevention and risk reduction tools
- Monitoring participant risk behavior
- Participants reporting injecting and sharing has declined significantly from baseline through month 18



# Acknowledgements

## Bangkok Tenofovir Study Group

Kachit Choopanya  
Suphak Vanichseni  
Pravan Suntharasamai  
Udomsak Sangkum  
Praphan Kitisiin  
Wonchat Subhachaturas  
Pitinan Natrujirote  
Boonrawd Prasitthiphol

## Thailand MOPH - U.S. CDC Collaboration

Michael Martin  
Rutt Chuachoowong  
Philip Mock  
Janet McNichol  
Pasakorn Akarasewi  
Robert Linkins  
Frits van Griensven

## Bangkok Metropolitan Administration

Manoch Leethochavolit  
Sitthisat Chaimwongpaet  
Chanchai Khumphong  
Sompob Snidvongs Na Ayudhya  
Kovit Yongvanitjit  
Laong Srisuwanvilai  
Siriwat Manothum  
Kraichak Kaewnil

## Thailand Ministry of Public Health

Somyot Kittimunkong  
Sombat Thanprasertsuk

## CDC, Atlanta, GA, USA

Lynn Paxton  
Peter Kilmarx

*"The findings and conclusions in this presentation are those of the authors and do not necessarily represent the views of the Centers for Disease Control and Prevention"*



# Reported Sexual Activity

## Sexual Activity at Baseline

	n (%)
Number of sexual partners	
None	496 (30%)
1 partner	805 (50%)
> 1 partner	322 (20%)
Number of casual partners	
None	979 (60%)
< 1 per month	373 (23%)
≥ 1 per month	271 (17%)

## Sexual Activity during Follow-up

