

# Integrated Biological-Behavioral Surveillance (IBBS) in Indonesia

## Process Description



Interventions with Most at Risk Populations  
in PEPFAR Countries

Chennai, India  
February 18-20, 2009





# We must know our epidemics to understand the implications

“Why so important? To avoid blind spots, gaps, misconceptions and mismatches and make sure the money follows the epidemic.”

*David Wilson - World Bank*

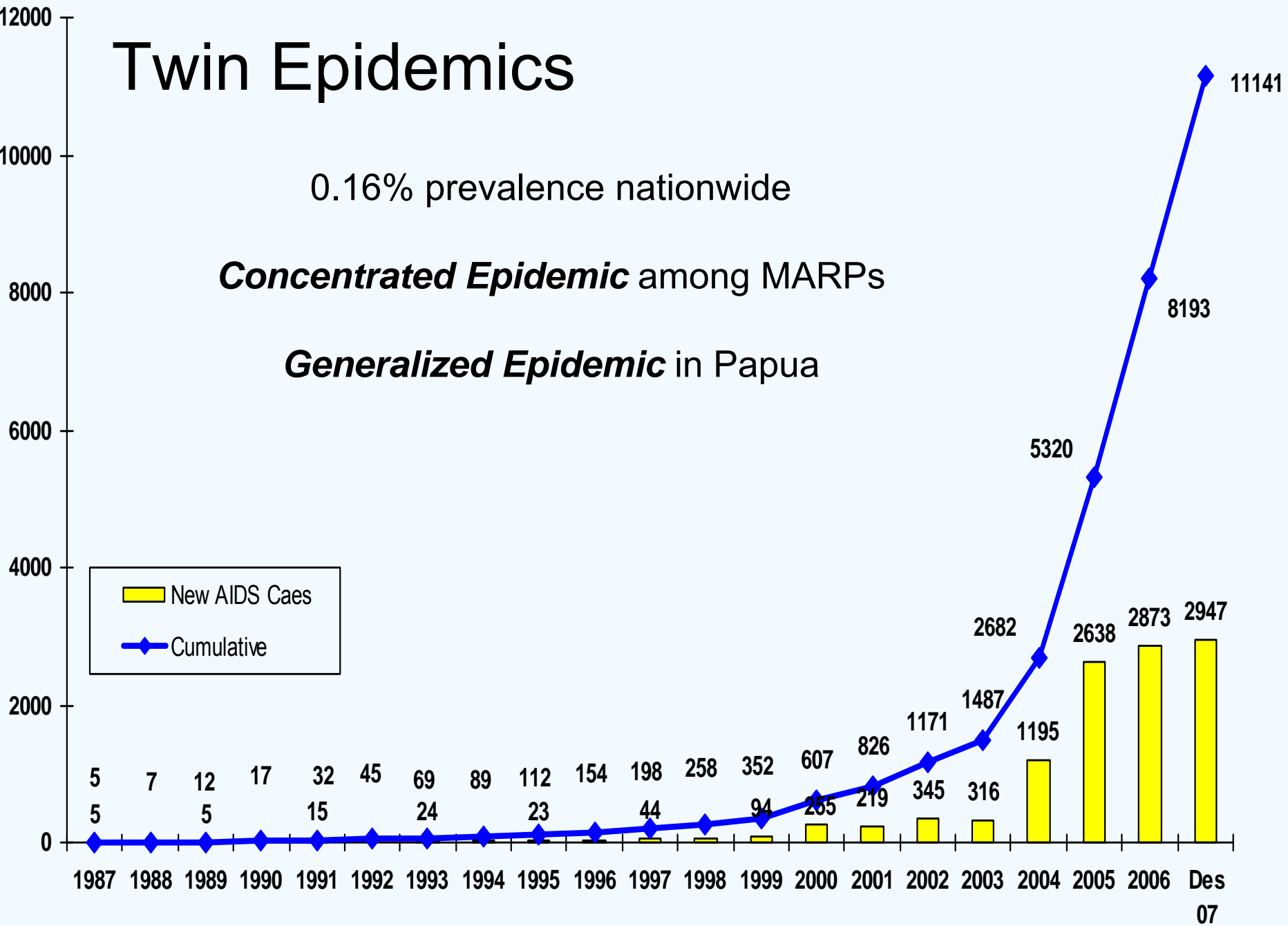


# Twin Epidemics

0.16% prevalence nationwide

***Concentrated Epidemic*** among MARPs

***Generalized Epidemic*** in Papua

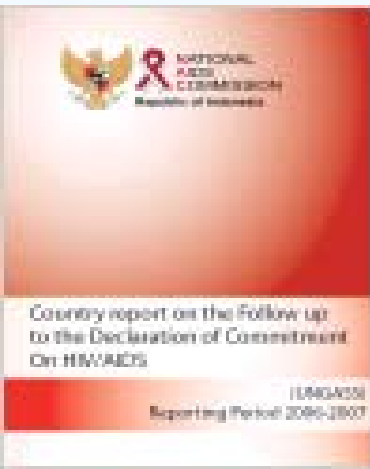
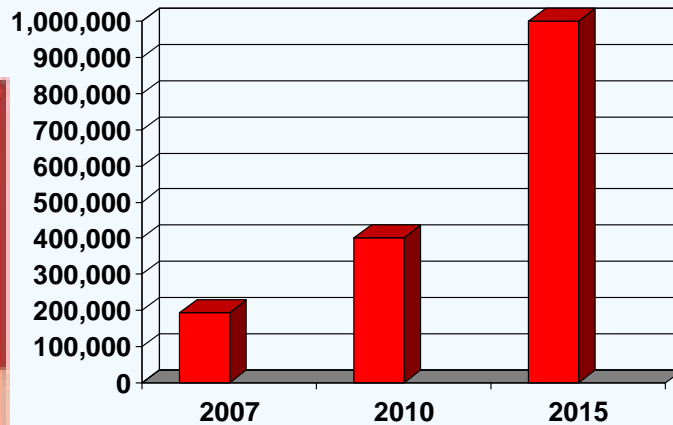




## MARPS transitioning from IDUs to sex work...



## PLHIV: Conservative Projections



Papua = 2.4%



Two Epidemics = Two Surveys

IBBS for Tanah Papua general  
population conducted in 2006

IBBS for MARPs in 16 cities  
conducted in 2007



# 2006 IBBS in Tanah Papua

## Design

- 6,216 general population respondents 15-49 years of age in 10 (of 29) districts using three-stage cluster sampling
- Behavioral survey data and blood sample via finger prick obtained from 96% of sampled respondents
  - Respondents offered free CT at nearby clinic to learn their HIV status
- HIV testing done on site via double rapid test
  - Dried blood spot samples sent to National Reference Lab to assess discordant field results and for QC purposes



# 2006 Tanah Papua IBBS

## Cost and financing

Total cost  $\approx$  US\$1M, plus FHI TA ( $\sim$  \$100K)

- Note: transport & logistics costs extremely high in Papua

### Financing from 2 sources

- World Bank:  $\sim$  \$150K to support design, some training, and dissemination (+limited WB staff time)
- USAID: funded balance, including bulk of training, all operational costs, and analysis



# 2006 Tanah Papua IBBS

## Planning workshops conducted for design process

- Jayapura:
  - National and provincial staff of MOH & Statistics Indonesia (BPS)
  - NGO and civil society reps
  - FHI and WB staff
- Jakarta (to finalize):
  - National and provincial staff of MOH & Statistics Indonesia (BPS)
  - FHI and WB staff



# 2006 Tanah Papua IBBS

## Field operation responsibilities

1. BPS coordinated fieldwork, sampling and conducted behavioral surveys
2. MOH collected blood samples and transported to National Reference Lab
3. FHI provided oversight for financial management, operational and technical issues

\* All three organizations participated in training and field supervision



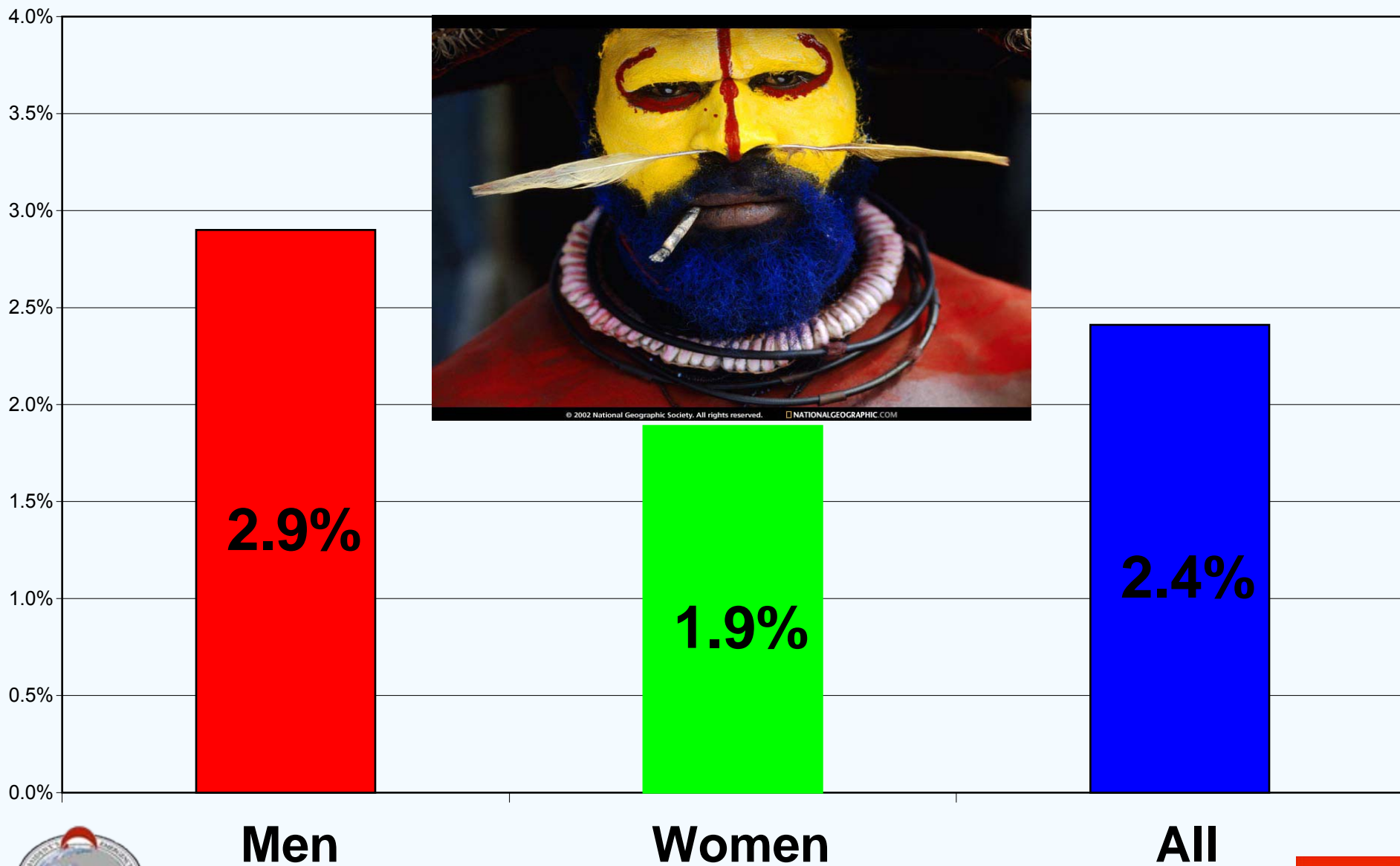
# 2006 Tanah Papua IBBS

## Analysis & Dissemination

- Contractually BPS held responsibility, but lack of experience with HIV/AIDS data resulted in FHI & WB staff leading analysis and BPS staff producing numbers
- Dissemination events in Jakarta and Jayapura co-financed by USAID & WB (small contributions from National and Papua Province AIDS Commissions)



# HIV IN PAPUA



# 2007 MARP IBBS

## Design

- MARP data obtained in 16 cities in 8 provinces:
  - Female Sex Workers, MSM, Waria, IDU, High Risk Men (Truck drivers, Seafarers, Dock workers, taxi drivers, Civil servants)
- Sample selection methods:
  - Time Location Cluster Sampling
  - Respondent-Driven Sampling (RDS)



# 2007 MARP IBBS

## Design (2)

- Behavioral survey data and biological specimens obtained from > 90% of sampled respondents:
  - Blood - venipuncture and finger prick, vaginal swabs - FSW, urine - males, rectal swabs - MSM
  - Respondents offered free CT at nearby clinic to learn their HIV status and free STI treatment as needed
- Lab work done at Provincial Labs, supported by National Reference Lab



# 2007 MARP IBBS

## Design (3)

- 14,368 behavioral surveys
- 10,340 HIV tests
- Syphilis tests:
  - 4,997 qualitative
  - 4,824 qualitative & quantitative
- CT/NG tests (PCR):
  - 7,777 urethral or vaginal
  - 1,472 rectal
- 912/928 BV/TV tests



# 2007 MARP IBBS

## Cost and financing

- Total cost ≈ US\$1M, plus FHI TA (~ \$200K)
- Financing:
  - USAID funded 90%+
  - WHO funded selected activities in four (4) cities to evaluate initial roll-out of PPT
  - AusAID funded behavioral survey data collection in Bali for program evaluation purposes
  - Clinton Foundation provided some support to dissemination
  - UNAIDS will support further dissemination



# 2007 MARP IBBS

## Design process (May-June 2007)

- Multiple planning workshops in Jakarta:
  - National and selected provincial staff of MOH & Statistics Indonesia (BPS)
  - FHI and WHO staff

## Training (July-August 2007)

- National and provincial MOH & Statistics Staff
  - Training of trainers
- Provincial Field and Lab staff (BPS, MOH, NGOs)
  - Training for all aspects of surveys and for all MARPs



# 2007 MARP IBBS

## Field operation responsibilities

(August - November 2007)

- BPS coordinated fieldwork, sampling and conduct of behavioral surveys
- MOH collected samples and maintained integrity of biological samples, and transport to Provincial Labs
- FHI oversaw financial management, operational and technical issues

All three organizations participated in training and field supervision



# 2007 MARP IBBS

## Analysis

(December 2007 - August 2008)

- BPS staff handle data processing and data file preparation
- FHI staff led data cleaning, analysis and development/publication of “Fact Sheets” presenting main findings for each MARP
- MOH working group comprised of MOH, BPS, FHI, WHO, and consultants convened for development of full final report (in progress)



# 2007 MARP IBBS

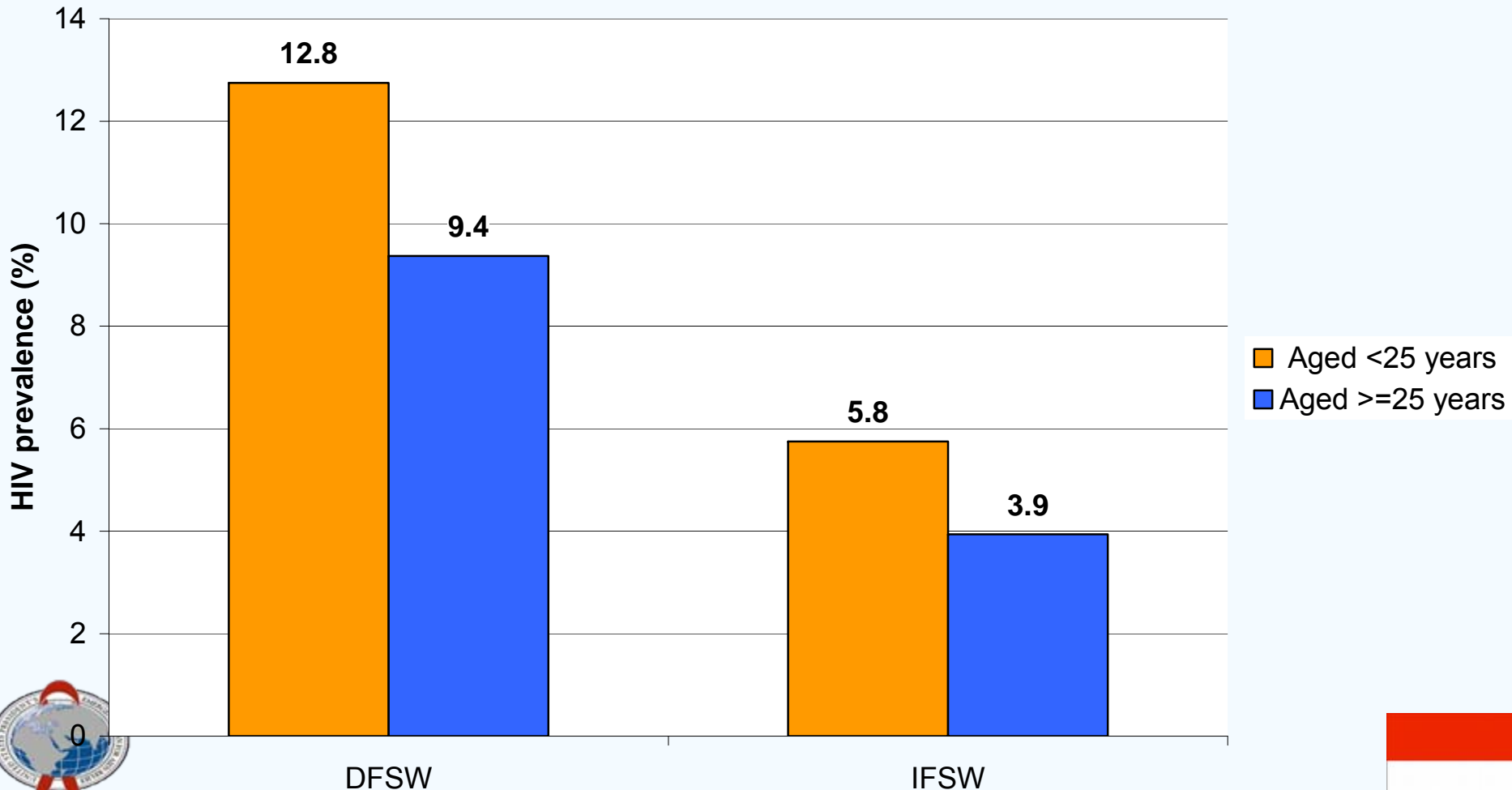
## Dissemination

- Initial “stakeholder” dissemination event finally held in November 2008 (originally slated for February) led by MOH
- National dissemination to be held when final report is approved...
- Further dissemination TBD...

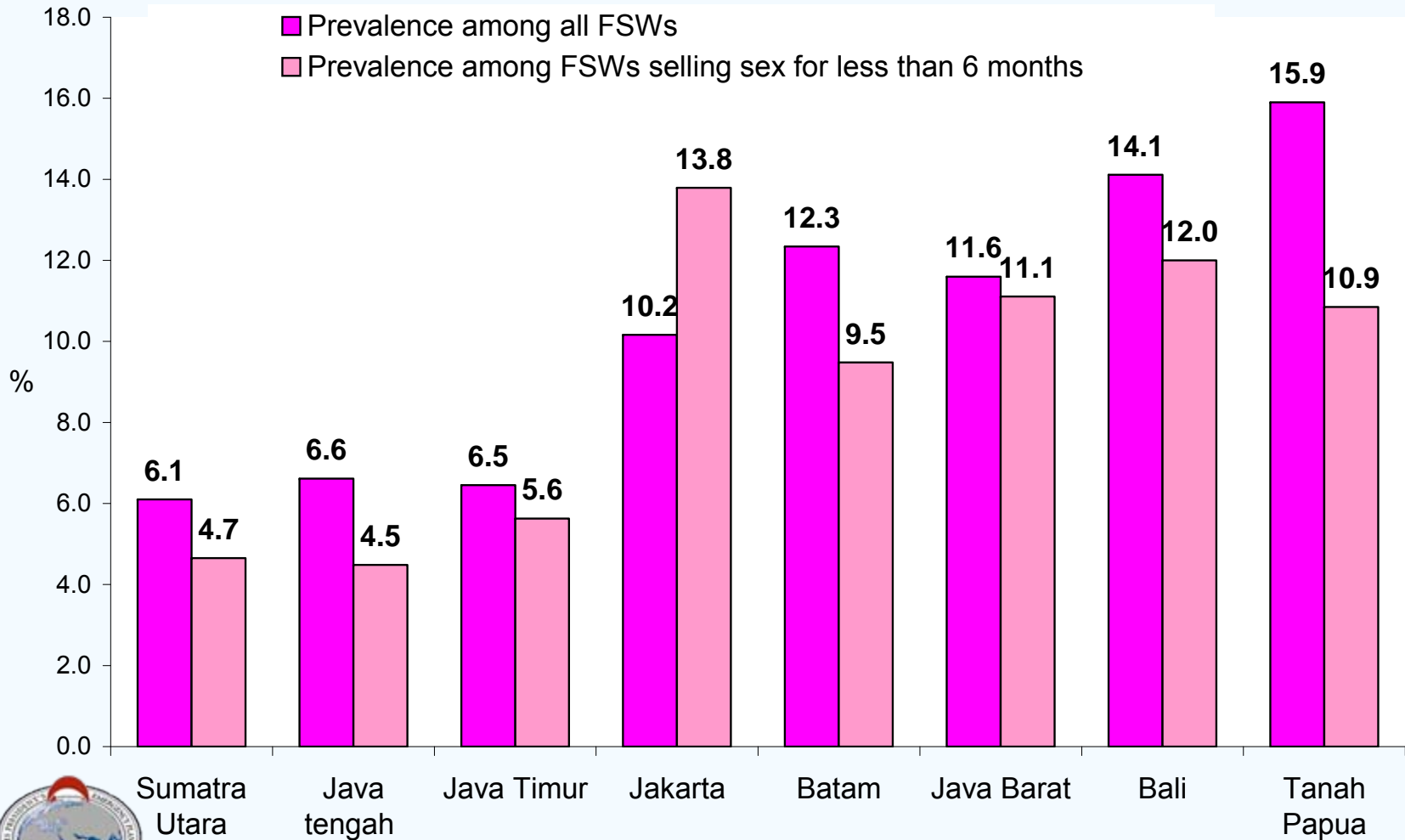


# Younger FSW have higher HIV prevalence than their older peers

HIV prevalence by age group and type of FSW

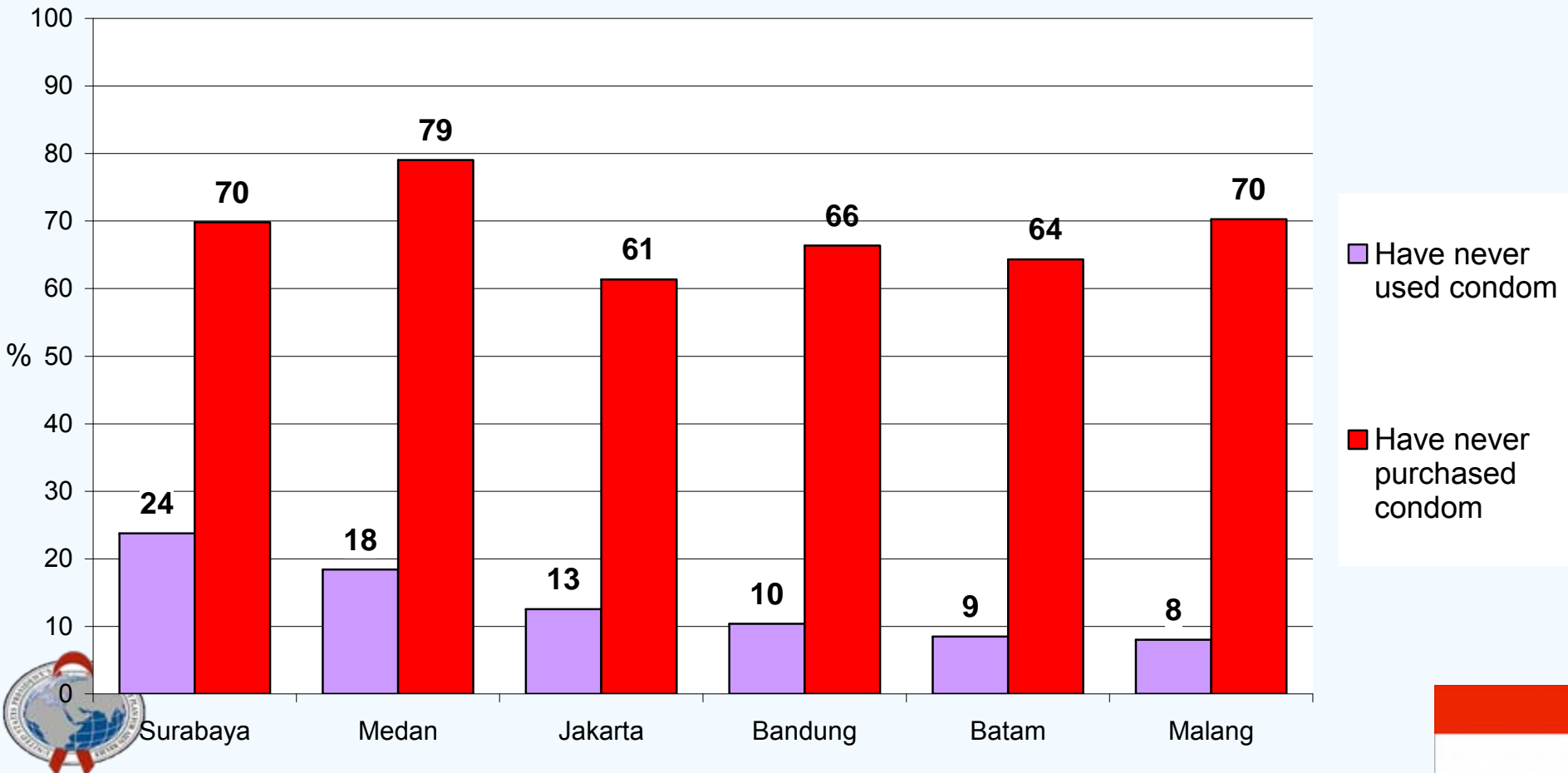


# Prevalence of HIV among DFSW By Duration of Selling Sex



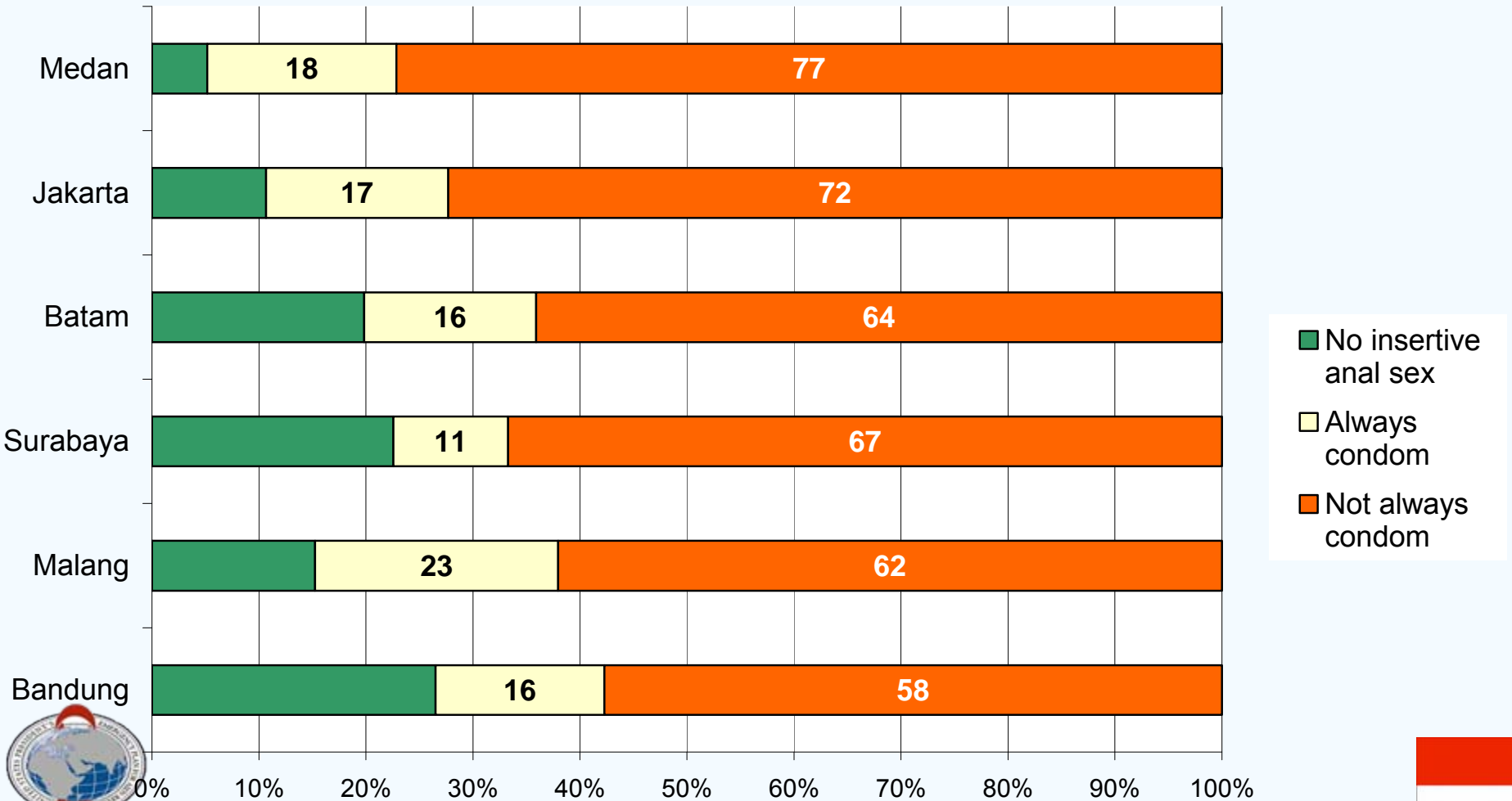
# 10 to 20% of MSM have never used a condom, and most have never bought condoms

Proportion of MSM who have never used condom while having sex, by city



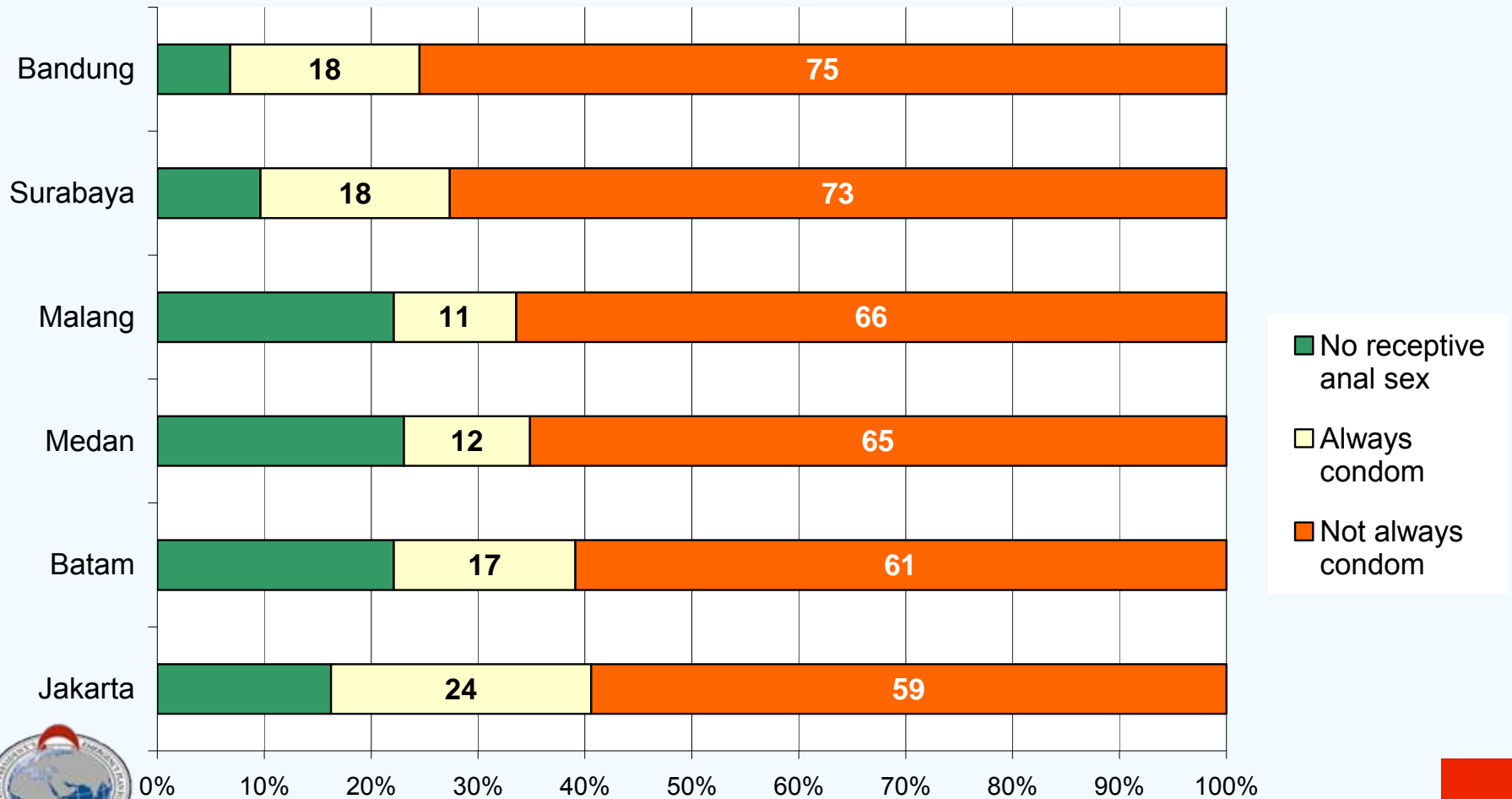
# Most MSM had unprotected insertive anal sex in the past month

Unprotected sex in insertive anal sex past month

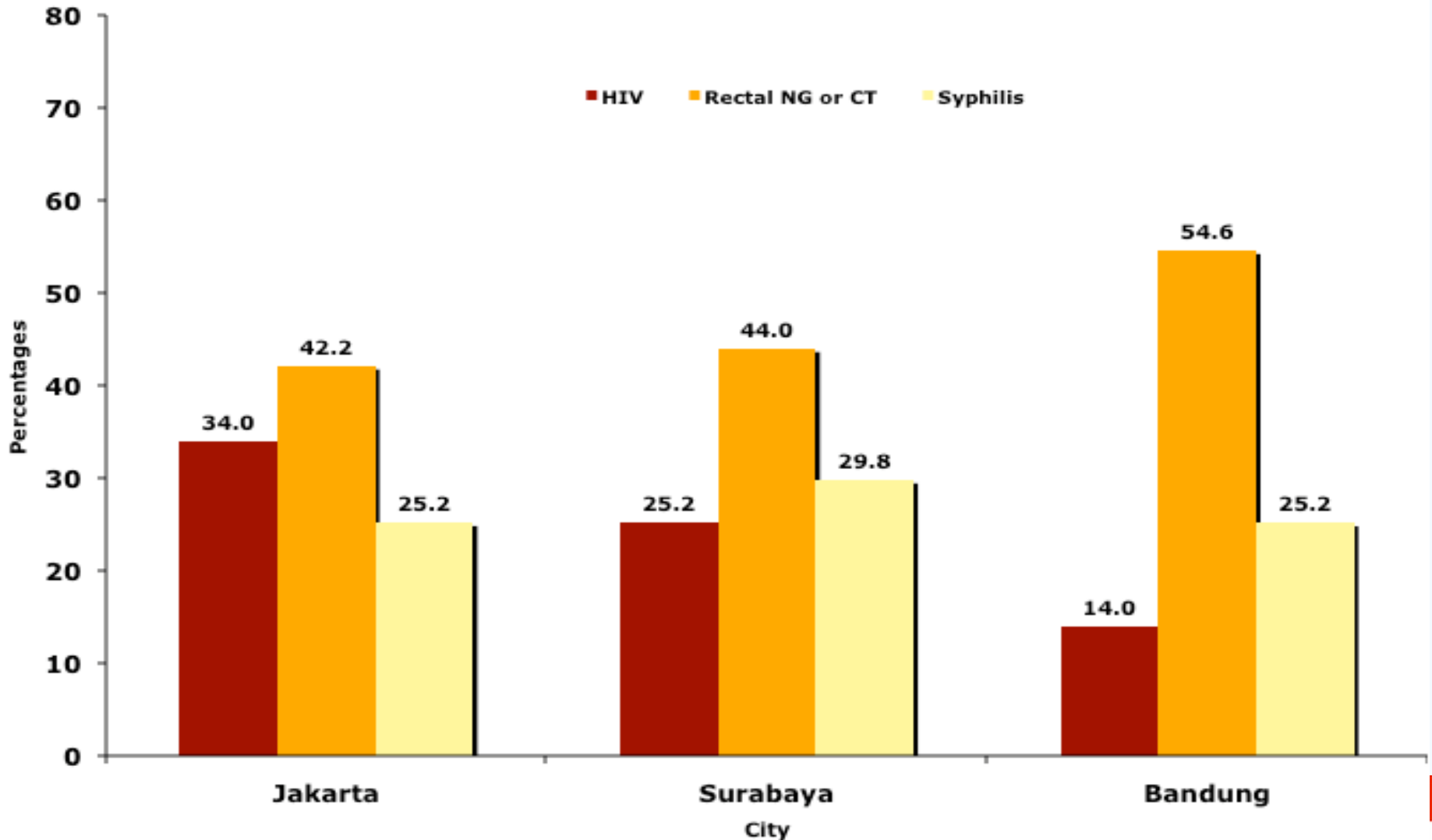


# ... as well as unprotected receptive anal sex

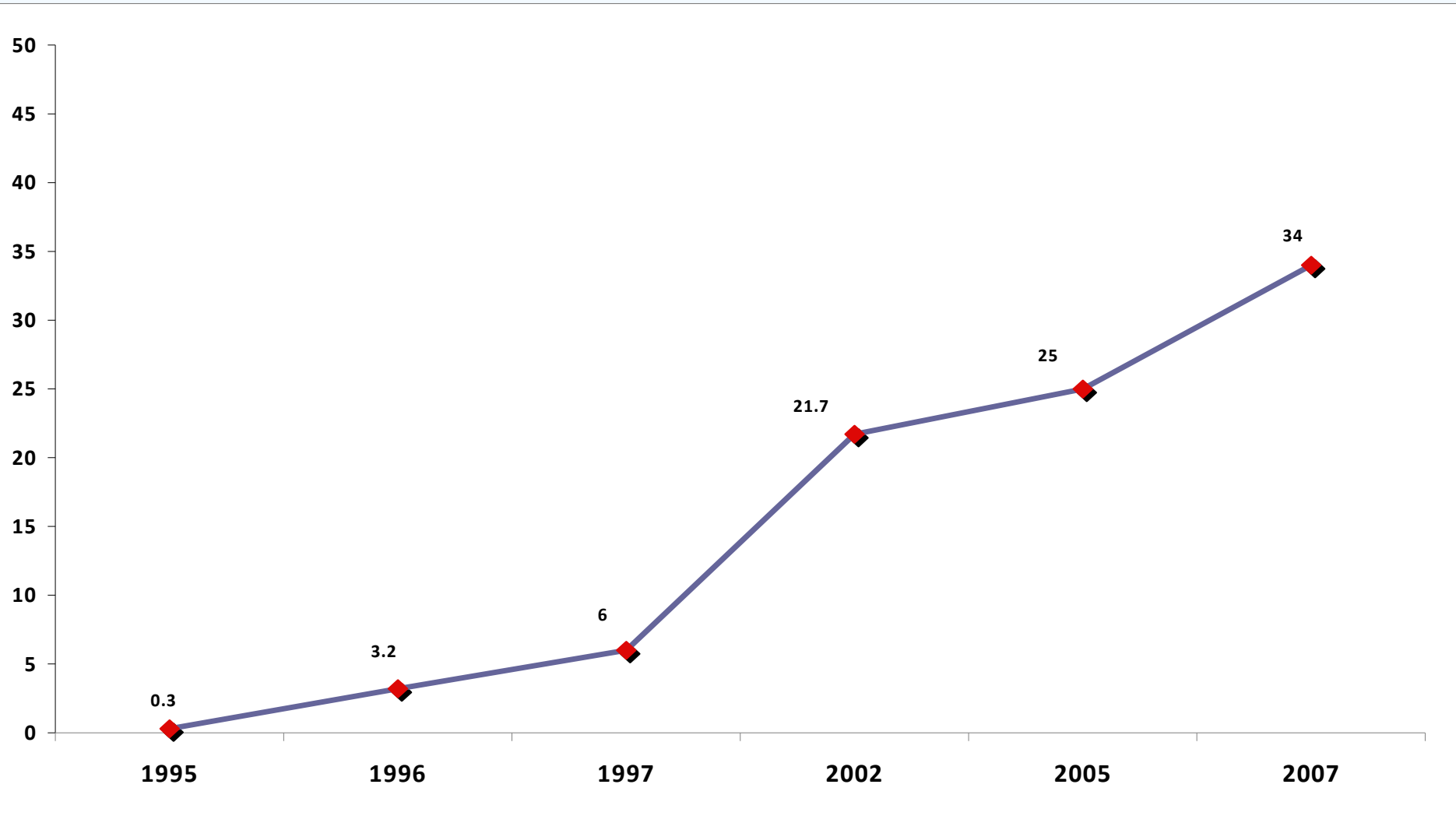
Exposure to unprotected receptive anal sex



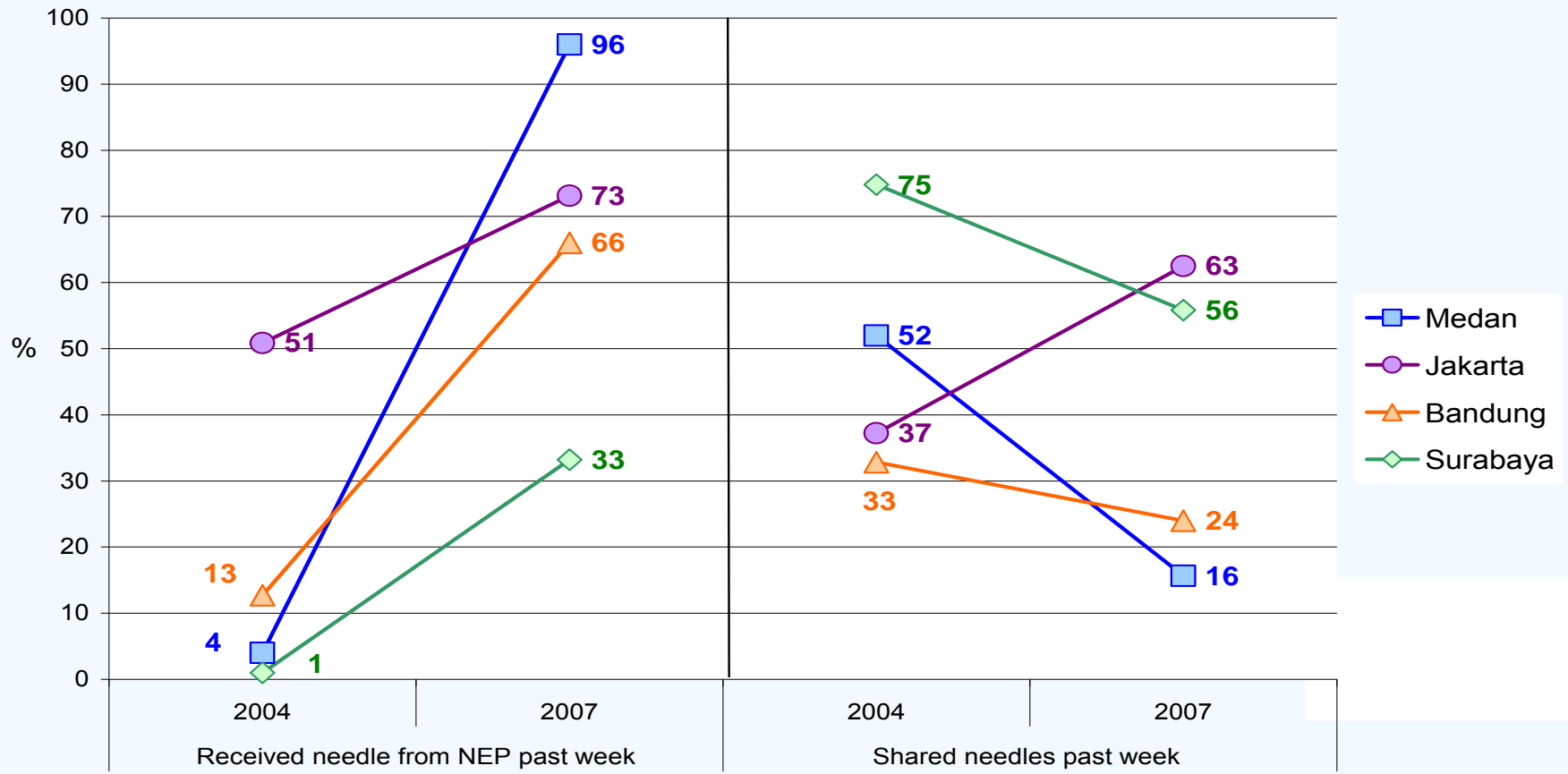
# Prevalence of HIV & rectal STIs are high among Waria



# HIV prevalence among Waria in Jakarta continues to rise

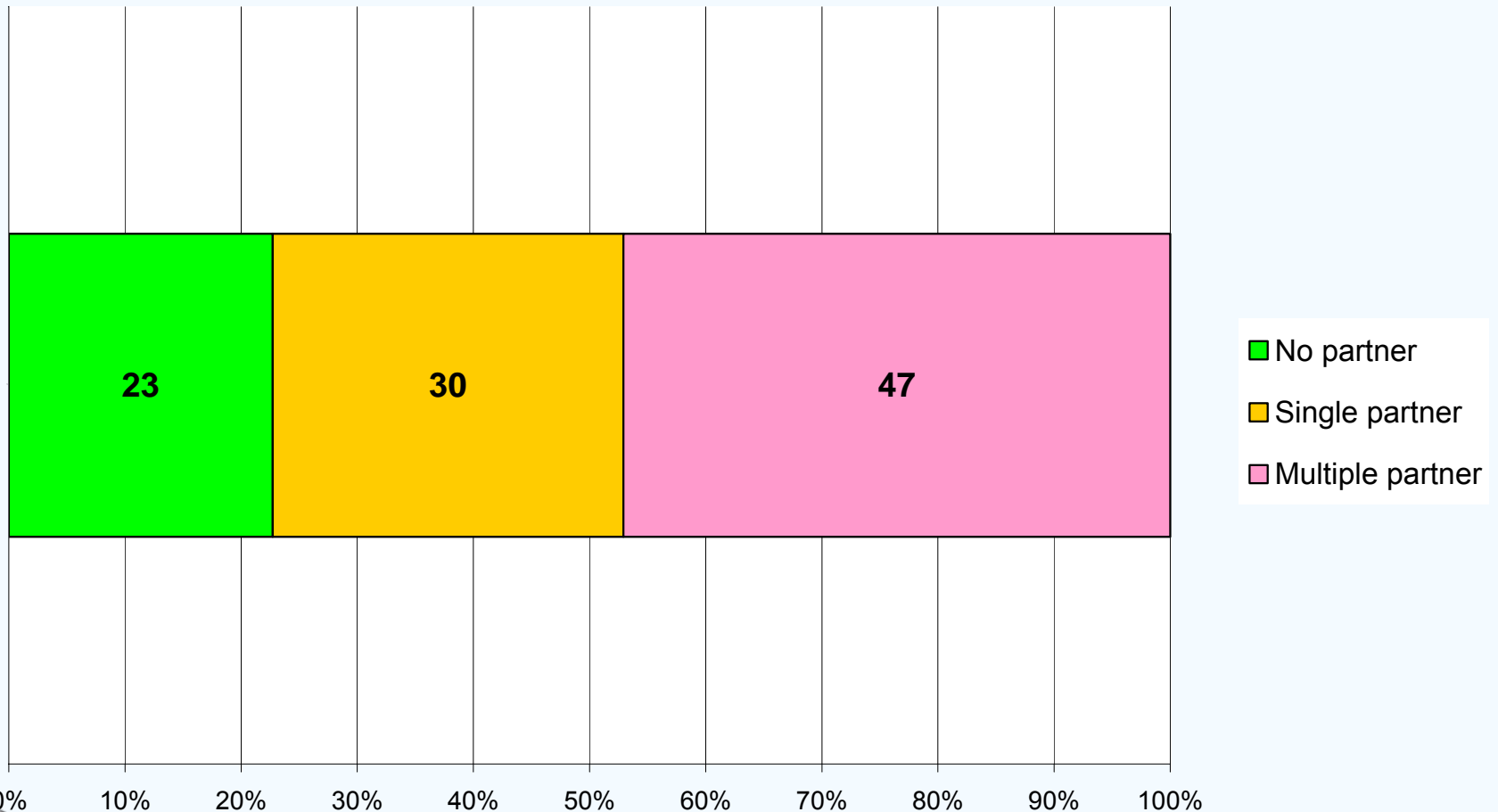


# Coverage of NEP is increasing, while needle sharing is decreasing (except Jakarta)



# Most IDU are sexually active

Number of sexual partners reported by IDU in the past year



# Challenges

- GOI engagement, ownership, and understanding
- Stigma Issues
- Size Estimation very poor
- We know Indonesia's epidemic is rapidly evolving and we are not meeting programmatic challenges
- No Funding
- Liaising with Global Fund and maximizing opportunities





**STRATEGI NASIONAL  
PENANGGULANGAN HIV DAN AIDS  
2007 - 2010**



KOMISI PENANGGULANGAN AIDS NASIONAL  
2007

**All funding  
harmonized across  
provinces**

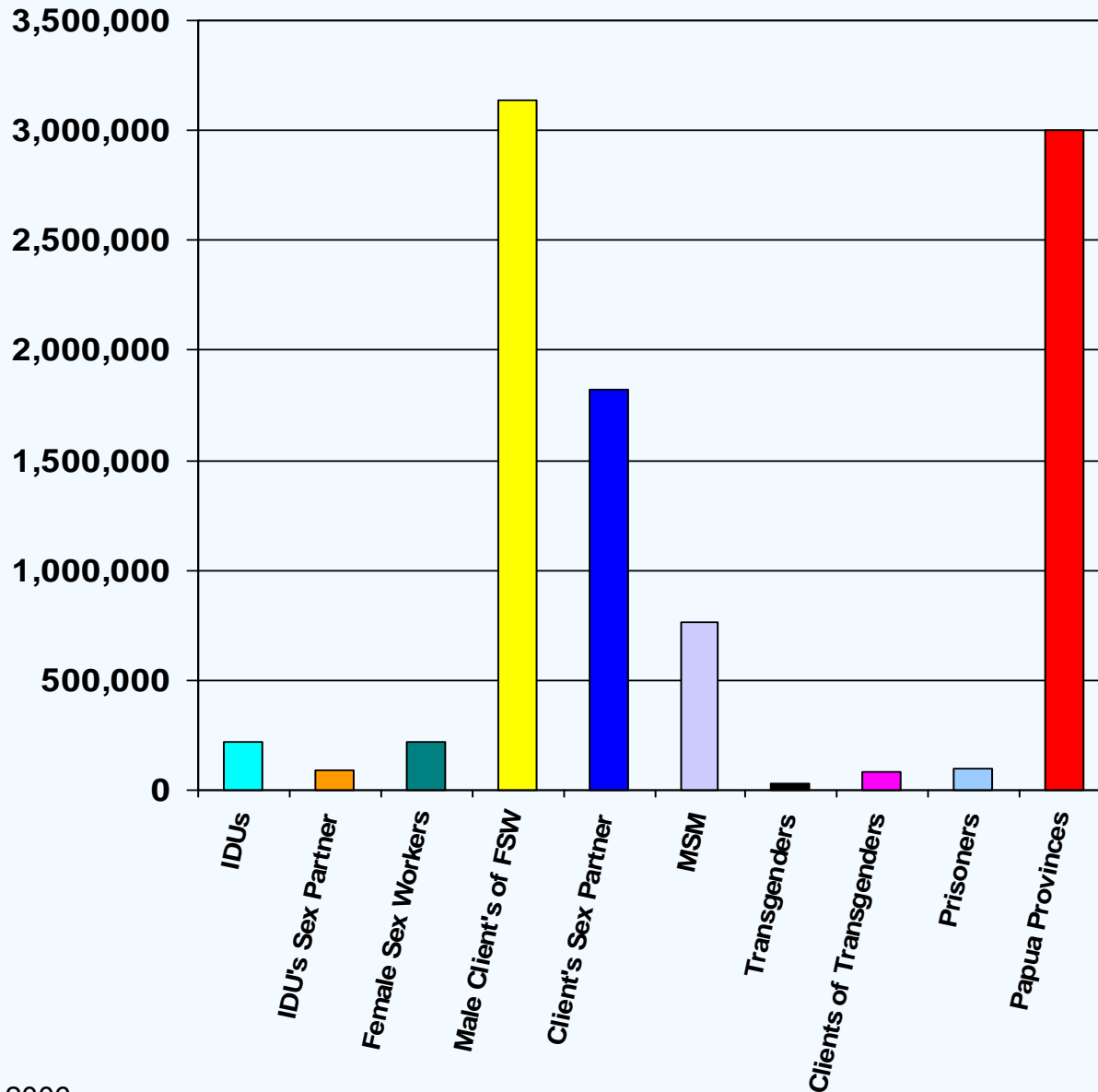
# Indonesian Response

## One National Strategic Action Plan

No	Province	Penasun	WBP	% Kumulatif (Penasun+W BP)	WPS	ODHA	GF R 4 Phase 2	GF R8 *	GF R9 *	GF R10 *	USAID	AusAID	IPF
1	Jawa Barat	24,710	19,250	13.9%	25,330	19,490	+	+			+	+	+
2	DKI Jakarta	33,750	9,240	27.6%	38,910	27,670	+	+			+	+	+
3	Jawa Timur	27,330	11,560	39.9%	26,070	20,810	+	+			+	+	+
4	Sumatera Utara	16,230	11,660	48.7%	8,900	10,390	+	+			+	+	+
5	Banten	9,650	4,440	53.2%	3,330	6,590	+			+	+	+	+
6	Sulawesi Selatan	12,110	1,790	57.6%	5,230	7,610	+	+			+	+	+
7	Jawa Tengah	7,910	5,760	61.9%	13,620	7,970	+	+			+	+	+
8	Sumatera Selatan	8,190	4,360	65.9%	6,580	5,930	+	+					+
9	Kalimantan Timur	9,500	1,180	69.3%	11,450	6,130	+		+				+
10	Kalimantan Selatan	6,580	2,380	72.1%	1,680	3,500			+				+
11	Sumatera Barat	6,080	2,540	74.9%	620	3,030			+				+
12	Riau	4,240	3,970	77.5%	8,120	4,440	+	+					+
13	Jambi	5,440	1,750	79.7%	1,760	3,110			+				+
14	DI Yogyakarta	5,590	950	81.8%	2,690	3,320	+			+		+	+
15	Lampung	4,870	1,400	83.8%	4,140	3,380			+				+
16	Nusa Tenggara Timur	3,670	2,450	85.7%	2,930	2,230	+		+				+
17	Kepulauan Riau	5,160	320	87.5%	10,920	3,990	+	+			+		+
18	Kalimantan Barat	4,300	1,110	89.2%	3,710	3,020	+		+				+
19	Bali	3,420	1,240	90.7%	8,540	5,570	+	+				+	+
20	Sulawesi Tengah	3,100	1,350	92.1%	2,430	2,010			+				+
21	NAD	2,710	1,320	93.4%	880	1,660			+				+
22	Sulawesi Utara	1,980	1,370	94.4%	3,770	1,640	+		+				+
23	Kep. Bangka Belitung	2,830	520	95.5%	3,480	2,120			+				+
24	Kalimantan Tengah	2,300	560	96.4%	7,000	2,170				+			+
25	Bengkulu	2,060	120	97.1%	1,420	1,450				+			+
26	Nusa Tenggara Barat	700	1,340	97.7%	1,320	840	+		+				+
27	Sulawesi Tenggara	900	920	98.3%	1,690	790				+			+
28	Maluku Utara	1,020	330	98.7%	1,200	700			+				+
29	Sulawesi Barat	1,040	210	99.1%	650	650				+			+
30	Maluku	820	340	99.5%	3,400	1,190			+				+
31	Gorontalo	340	310	99.7%	1,730	340				+			+
32	Papua	430	140	99.9%	5,020	22,210	+	+			+	+	+
33	Papua Barat	240	130	100.0%	2,670	7,160	+	+			+	+	+
	Indonesia	219,200	96,310		221,190	193,110							



# Size of Vulnerable Populations Estimation



# We must know our epidemics to understand the implications

“Understand – but don’t overcomplicate – in many cases, we have, or can rapidly assemble, sufficient evidence for intelligent action”

*David Wilson - World Bank*



# Advice

- Government engagement early, often and throughout
- Shared funding with government to promote ownership from the beginning - very difficult to shift ownership and the funding dynamic after
- Promote understanding that MARPS epidemics can evolve very quickly, we need to track and provide enough coverage to stay responsive programmatically

