

Behavioral Sentinel Surveillance 2007

National Center for HIV/AIDS, Dermatology and STDs

28 April 2008

Sun Way Hotel

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Outline of the Presentation

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 - Female groups
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Background

- The first round of BSS was conducted in 1997
- BSS provides the descriptive epidemiology of sexual behaviors among the most at risk groups
- BSS 2007 is the seventh round of BSS

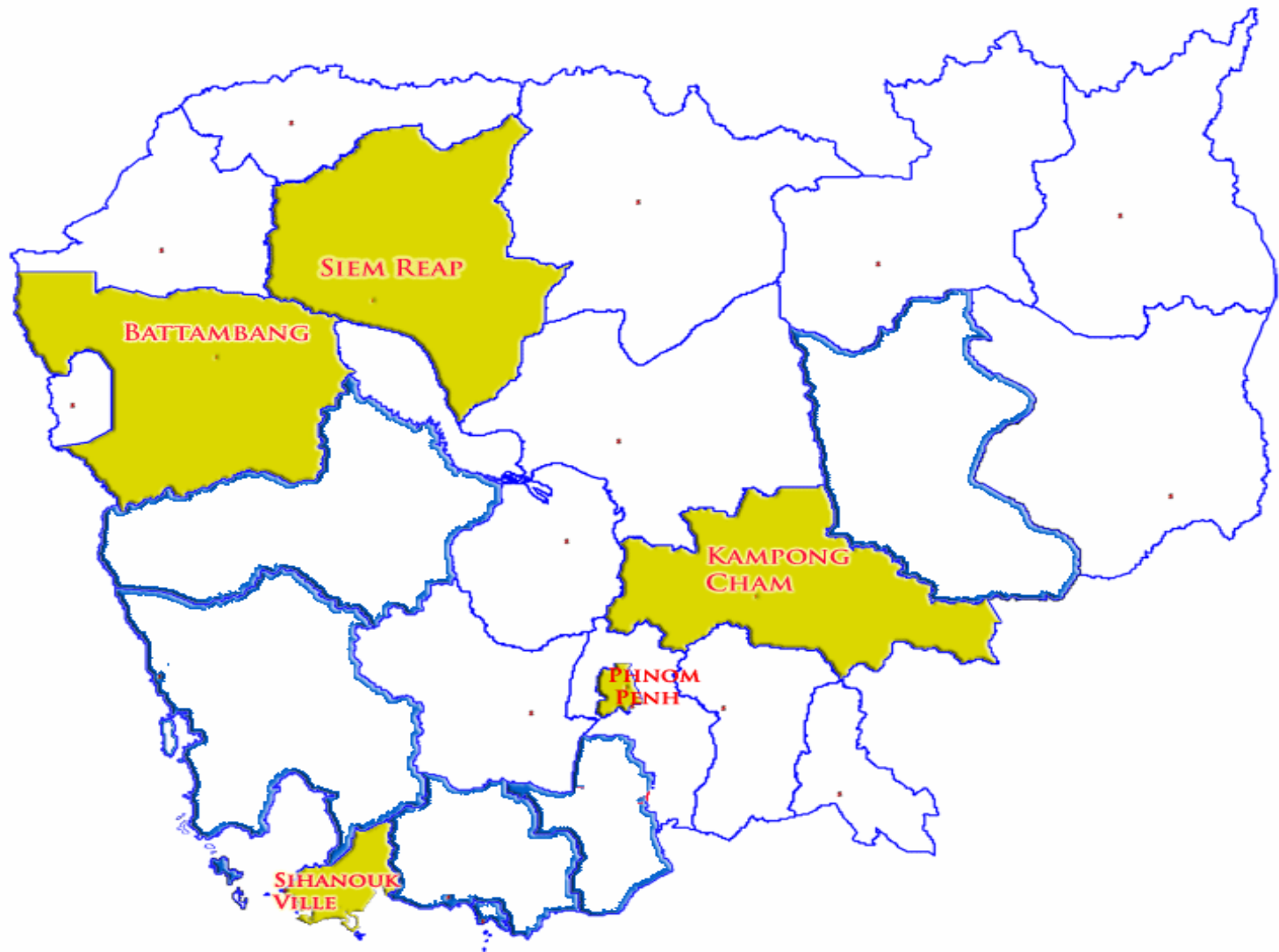
Objectives

- Provide specific-year information on socio-demographic and risk behavior related to HIV/STIs
- Monitor sexual behavior of risk groups from year to year and to examine trends in behavior change in high risk groups

Target Populations

- DFSW surveyed in all rounds of BSS
- IDFSW
 - Beer promoter (since first round)
 - Karaoke worker (in 2001)
 - Beer garden staff (new population)
- Moto-taxi driver was surveyed in all round
- MSM groups was first surveyed in STI survey 2005 (first time in BSS)

Sites for BSS 2007



Survey Design

- Data were collected from the urban population of the 5 provinces that were covered in all rounds of Cambodia BSS: Phnom Penh, Sihanouk Ville, Kampong Cham, Siem Reap and Battambang
- Two-stage cluster sampling with equal probability was used for all female groups and time location sampling was used to select moto-taxi driver and MSM
- Face to face and gender matched interview was performed

Sample size: BSS 2007

Province	DFSW	IDFSW			MSM		Moto-taxi
		Beer Promoters	Karaoke	Beer Garden staff	Short hair	Long hair	
PNP	213	133	136	130	132	135	218
KPC	97	64	66	0	66	25	110
BTB	106	70	68	59	65	62	109
SHV	106	63	66	46	61	55	110
SRP	70	65	63	64	64	64	109
Total	592	395	399	299	388	341	656

A total of 3070 participants

Data Analysis

- Data were coded and entered into computerized database using EpiData 3.2
- Analysis – descriptive statistic were performed using STATA 10

Results

Female sentinel groups

DFSW : Brothel based sex workers

IDFSW : Beer promoters, bee garden workers and
Karaoke workers

Socio-demographic Characteristics

	DFSW	IDFSW		
		Beer Garden workers	Beer promoters	Karaoke workers
Mean age year (Median)	25.2 (25)	21.8 (21)	25.5 (25)	22.9 (22)
Mean age at first marriage (Median)	18.2 (18)	19.2 (19)	19.2 (18)	18.7 (18)
with no school (%)	43	10	18	16
Divorced (%)	52	26	43	30
Mean monthly income US\$ (Median)	135 (100)	109 (90)	113 (89)	136 (100)
living with spouse or relatives (%)	--	51	65	42
Have been for less than 6 months in current city (%)	80	77	69	79
Median # months in current job	12	5**	12**	6**

**current establishment

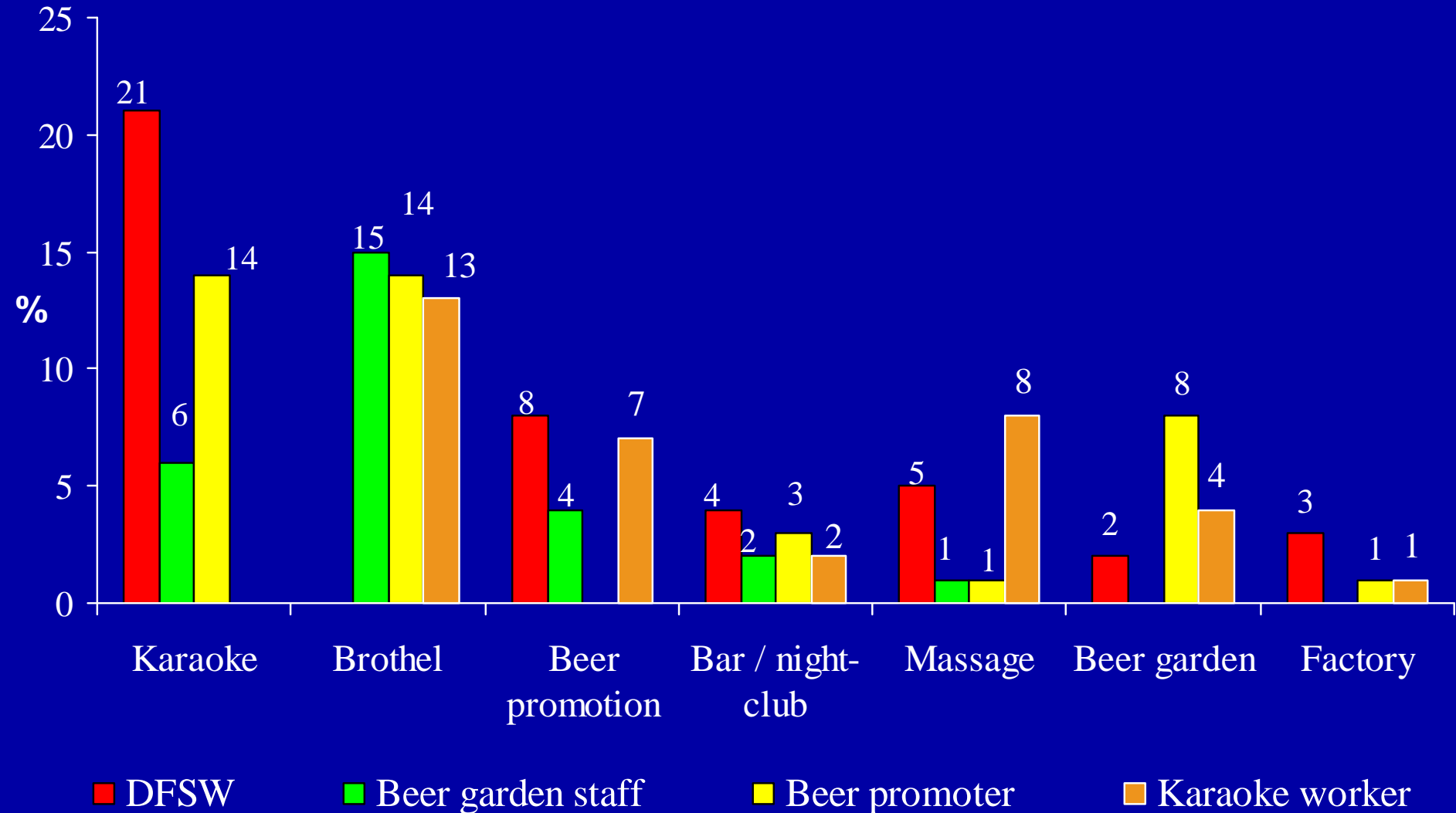
Sexual behaviors

	DFSW	IDFSW		
		Beer Garden workers	Beer promoters	Karaoke workers
Mean age at first sex (median)	17.8 (18)	18.9 (19)	19.2 (19)	18.8 (18)
Did not have sex past year (%)	—	44	23	26
Sold sex past year (%)	--	20	27	46
Had last abortion in the past 12 months (%)	31.6	17.2	30.3	24.7
Had sex with sweetheart in the past year (%)	45	39	44	44
Mean number of partner past year (median) among sexually active	--	3.3 (1)	4.2 (1)	15.1 (3)

Conditions of sex work

	DFSW	IDFSW		
		Beer Garden workers	Beer promoters	Karaoke workers
First partner was a client (%)	22	4	5	12
Mean number of clients last working day (median)	4.4 (4)			
Median cost per sexual intercourse in Riels (Median) – 1US\$ = 4,000 riels	10,400 (7,200)			
Mean number of FSW in establishment (median)	6.8 (5)			

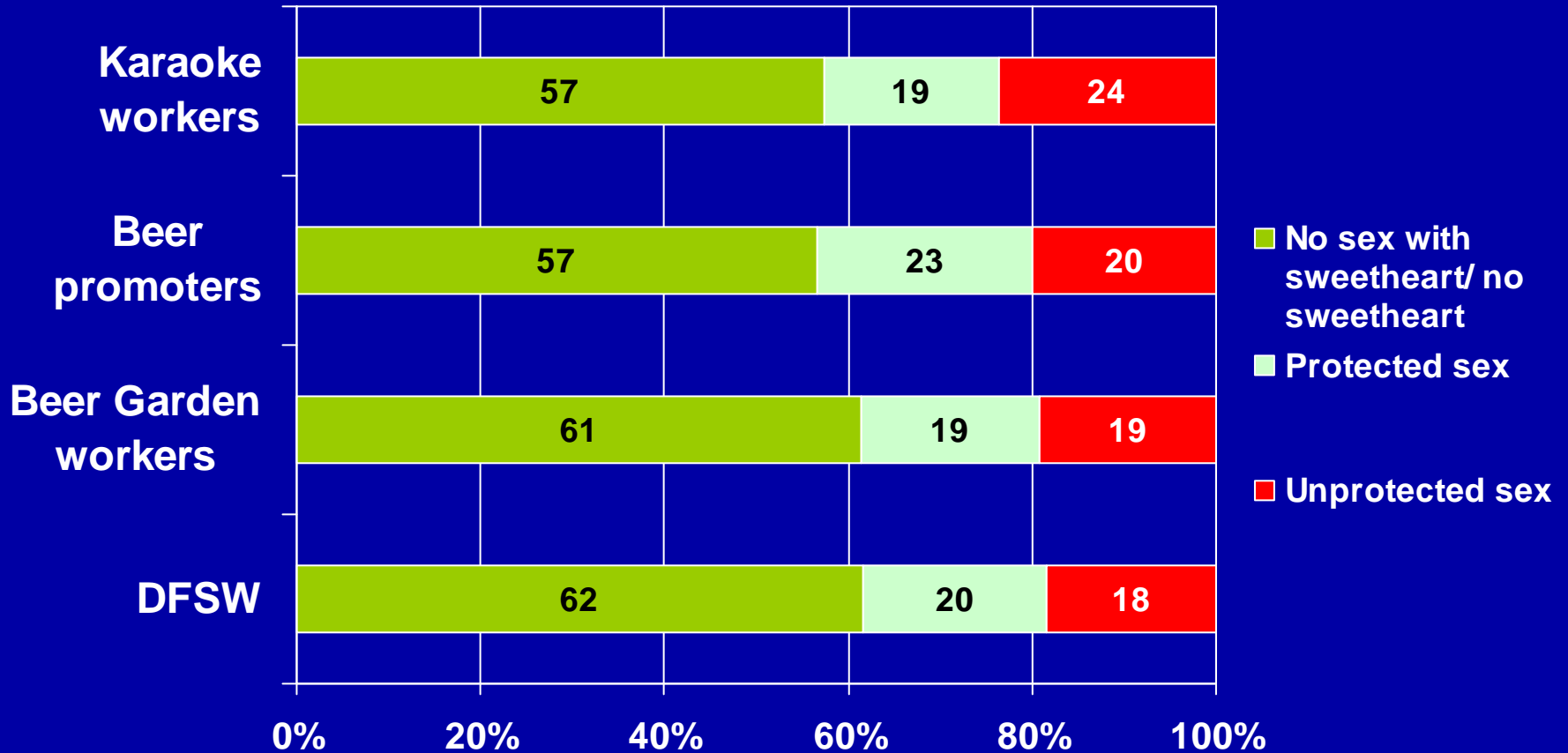
Previous jobs



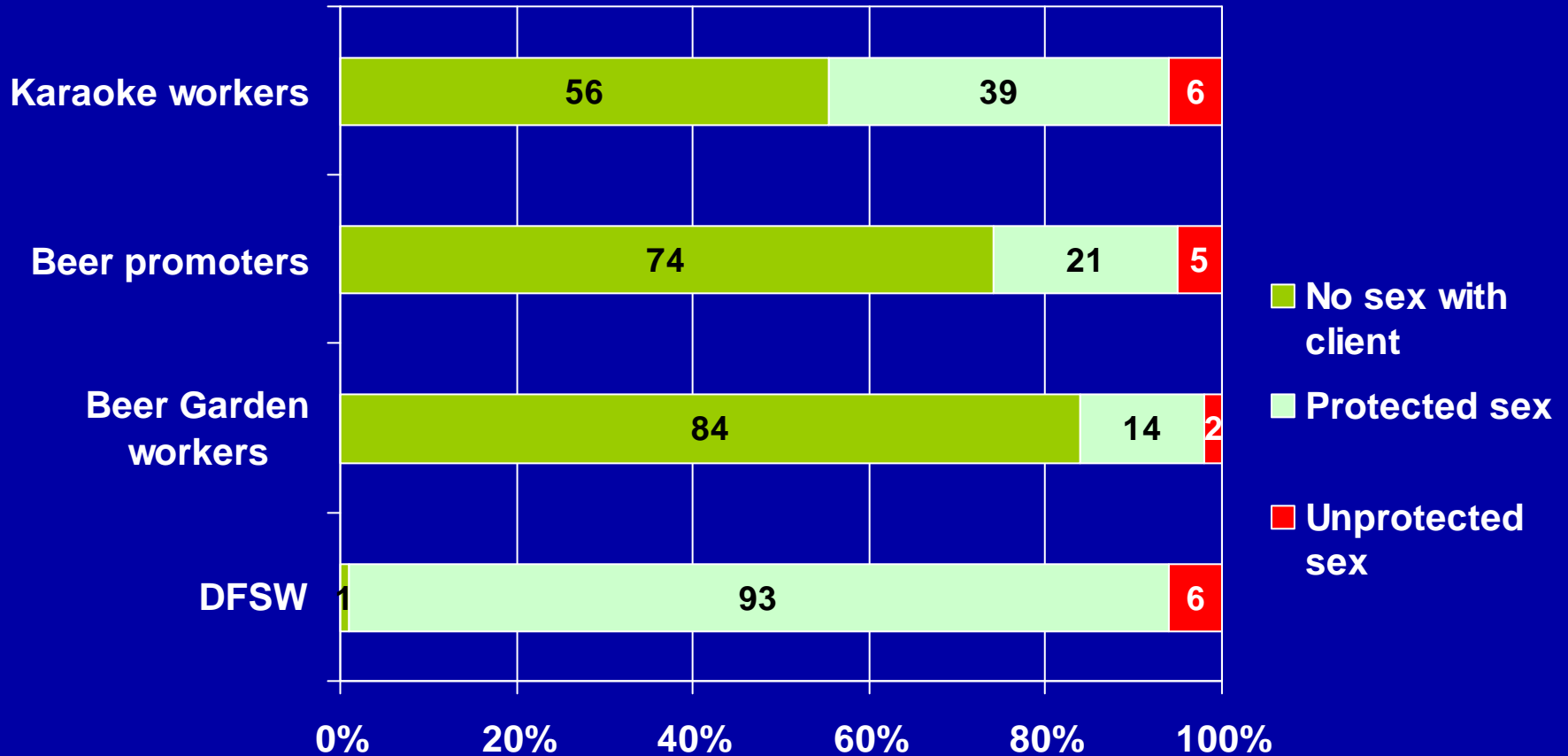
Condom use

	DFSW	IDFSW		
		Beer Garden workers	Beer promoters	Karaoke workers
Condom NOT AVAILABLE at workplace or nearby workplace in Phnom Penh (%)	9	51	39	46
Condom NOT AVAILABLE at workplace or nearby workplace in Provinces (%)	1	32	8	2
Condom use at last commercial sex (%)	99	88	96	95
Had condom breakage in past 3 months (%)	37	11	8	15
Used two condoms at a time at last commercial sex (%)	47	27	29	26

Unprotected sex with sweetheart in the past 3 months (DFSW past month)



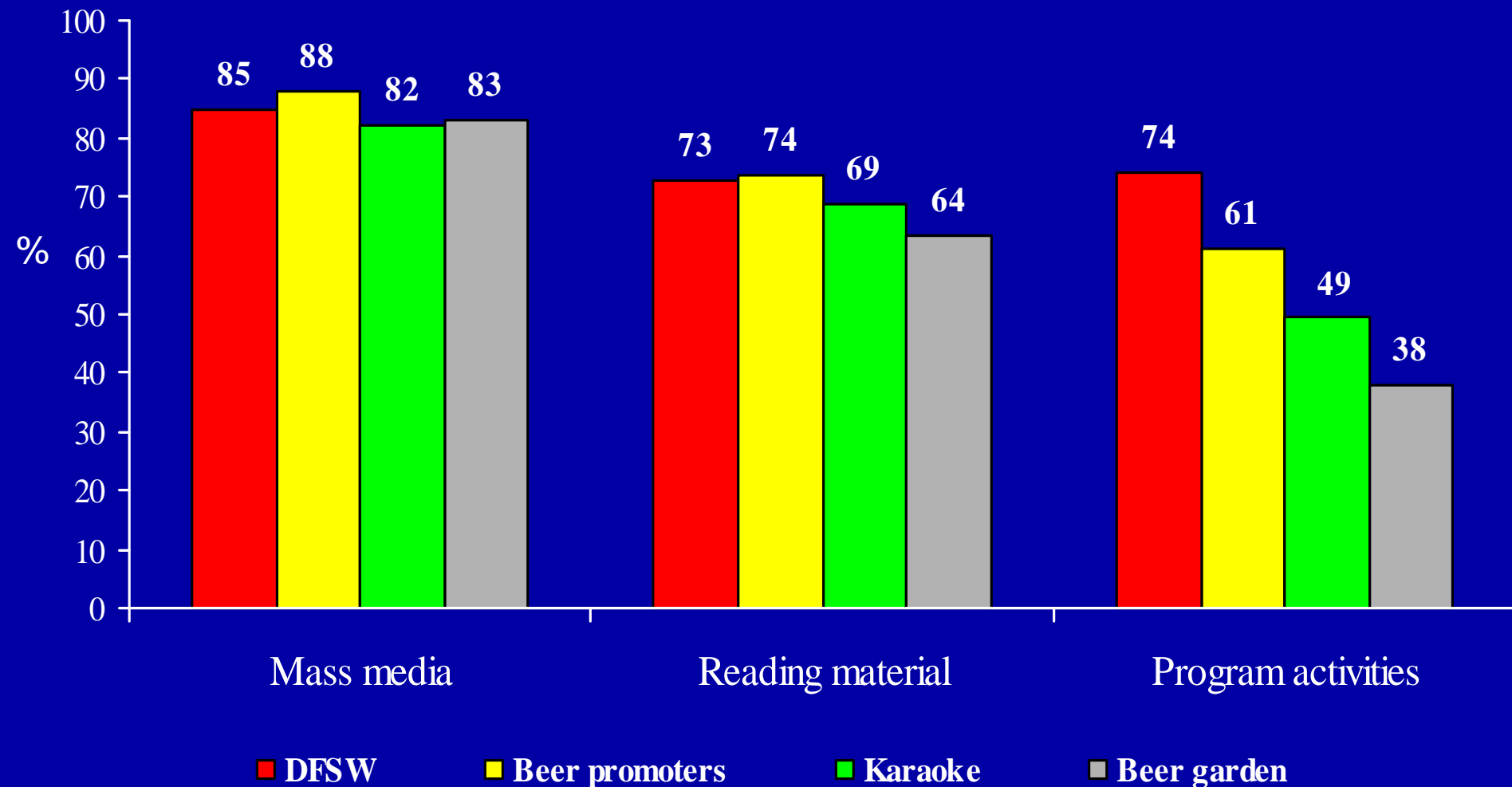
Unprotected sex with clients (DFSW past week ; IDFSW past 3 months)



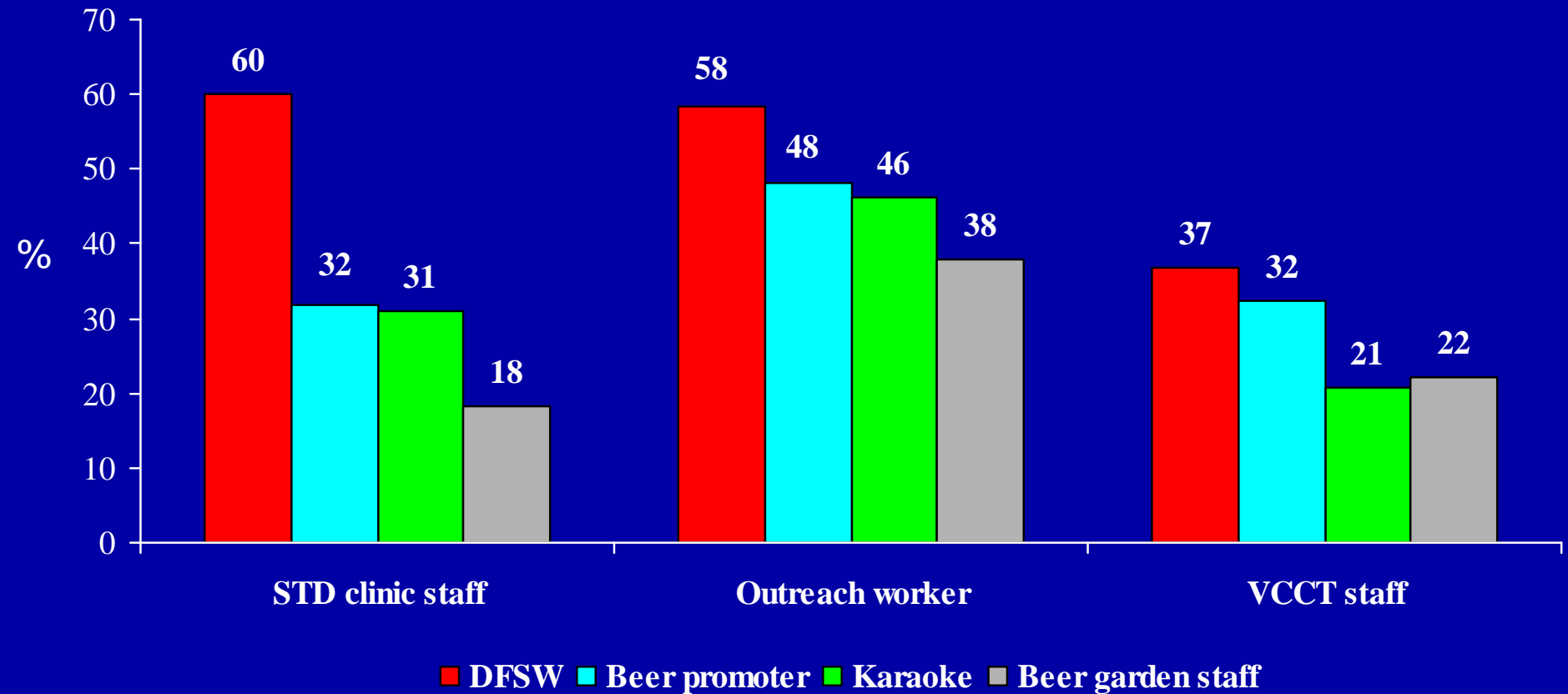
Reported Symptom of STI past year & Health Seeking Behavior

	DFSW	IDFSW		
		Beer Garden workers	Beer promoters	Karaoke workers
Any symptom of STI in the past year (%)	53.4	24.1	38.5	35.3
Vaginal discharge in the past year (%)	47.3	23.4	35.4	34.3
Did NOT visit to the STI clinic past 3 months (%)	15.2	82.8	58.4	64.7
Referred by a peer-educator at last visit to STI clinic (%)	25.9	48.4	39.1	48.0
Get support from establishment owner to visit STI clinic (%)	89.7			
Facilities used for last STI (%)				
- Clinic	84.5	59.5	77.4	63.3
- Pharmacy	11.3	25.7	14.8	19.7
- No treatment	4.3	9.5	5.2	15.7

Sources for HIV/AIDS information in the Past 3 months



Providers of Information on HIV/AIDS in the Past 3 months



Use of VCCT services

	DFSW	IDFSW		
		Beer Garden workers	Beer promoters	Karaoke workers
Had HIV test in the past year (%)	74.2	41.1	67.1	50.4
Facility used at last test (%)				
VCCT	81.9	77.5	85.1	75.9
Private laboratory	4.9	14.2	6.9	11.3
Public hospital	13.2	8.3	8.0	12.8
Received results at last test (%)	94.3	98.3	98.5	95.4
Received counseling at last test (%)	95.3	86.7	95.0	85.4

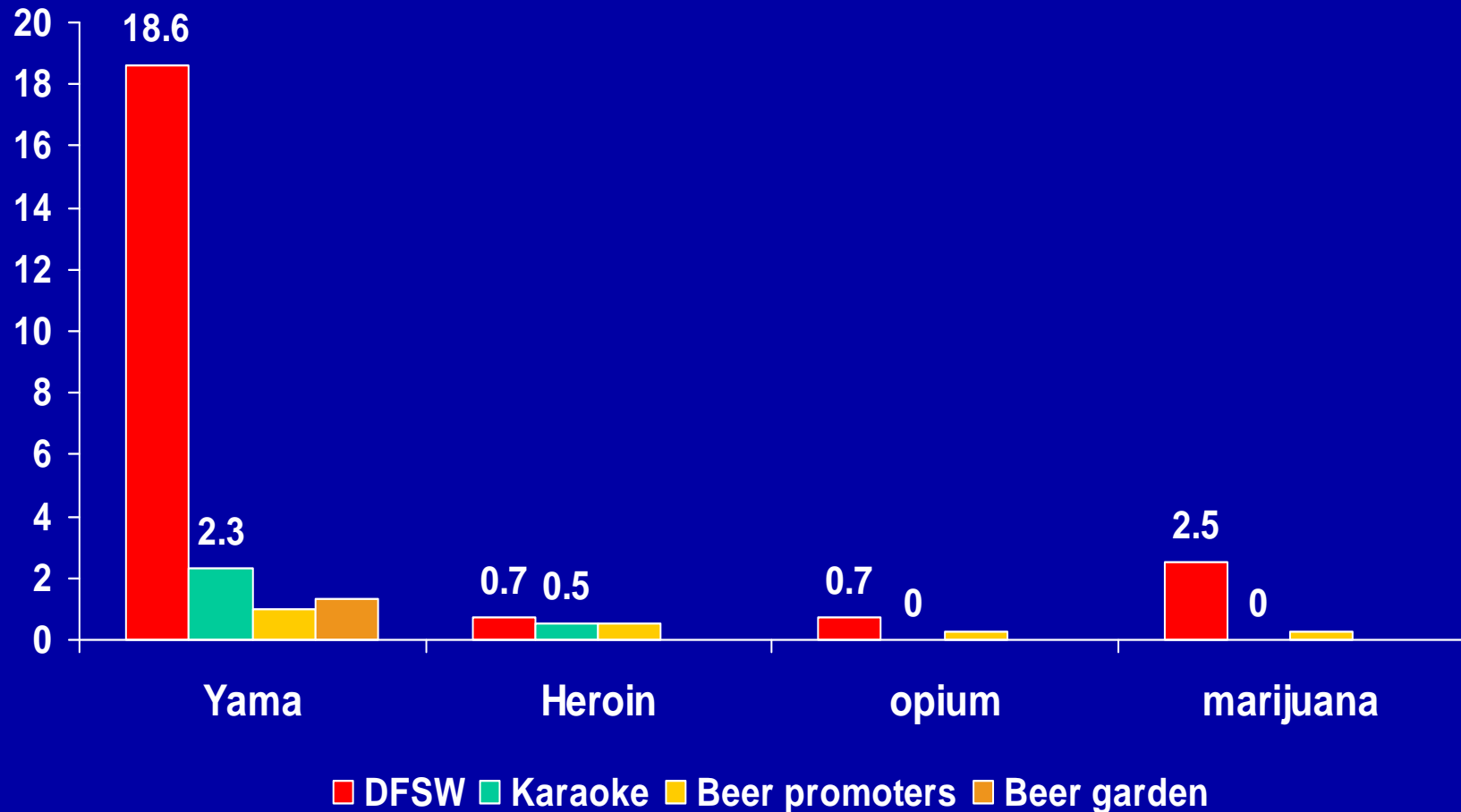
Attitude towards PLWHA

	DFSW	IDFSW		
		Beer Garden workers	Beer promoters	Karaoke workers
Would you provide care to a HIV infected family member (%)	93.9	94.3	96.0	94.5
Would you buy food from a PLWHA (%)	87.8	79.3	89.6	83.2
Would you keep it secret if a family member is infected with HIV (%)	32.3	28.6	31.0	36.1

Knowledge of Continuum of Care

	DFSW	IDFSW		
		Beer Garden workers	Beer promoters	Karaoke workers
Know that ART are available (%)	83.8	73.6	87.8	75.9
Believe can get ART if needed (%)	90.2	78.9	88.8	87.4
Know OI / ART clinics (%)	63.2	50.2	60.9	48.6
Know Home based care services (%)	30.1	25.1	26.7	24.3

Drug use in female groups



Moto-taxi driver

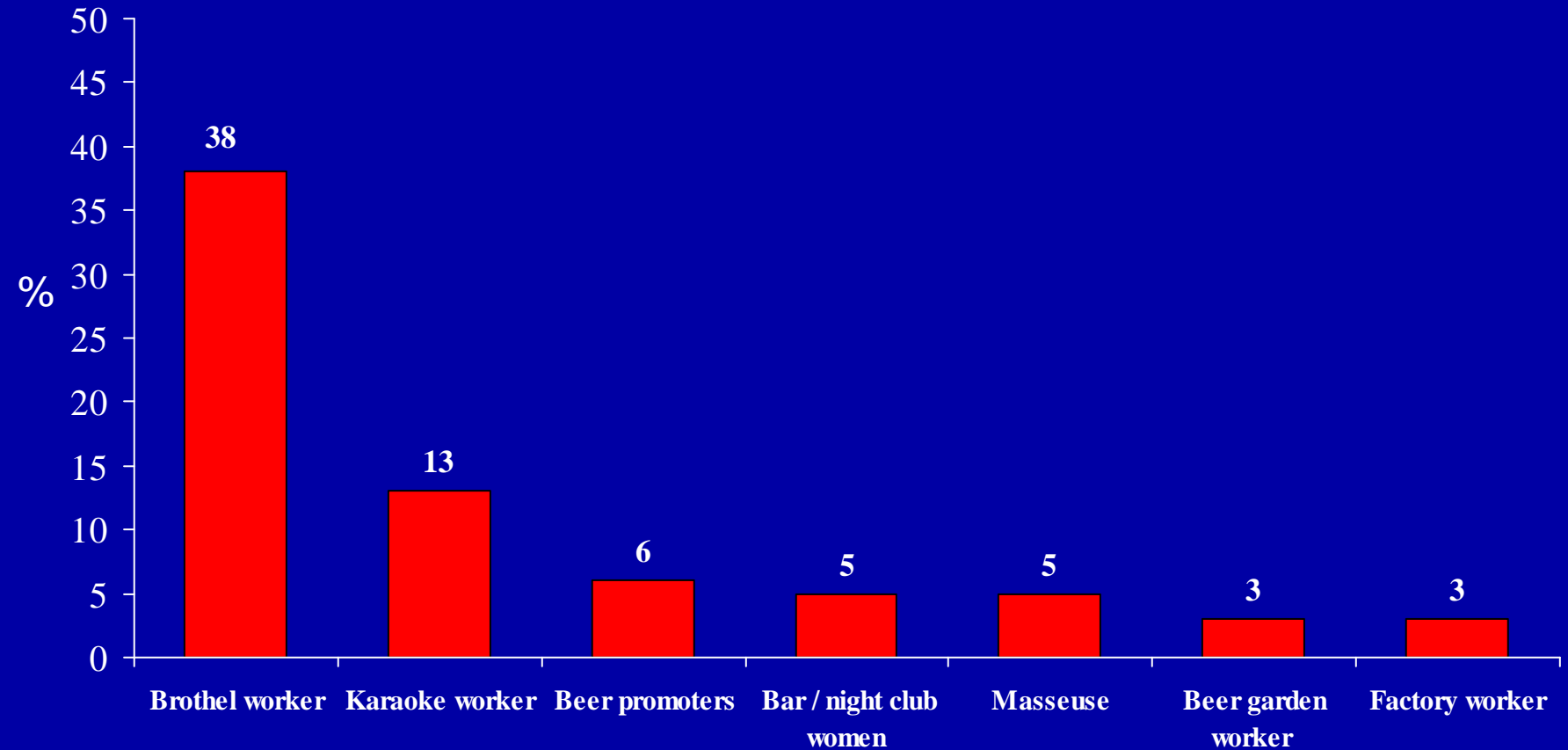
Socio-demographic characteristics

	Moto-taxi
Mean age	33.4
with no school or primary school (%)	33
Married	82
Mean income in Riels (median)	340,000 (300,000)
with other job (%)	33
Lived for 6 month or less in this city (%)	37

Sexual behaviors

	Moto taxi
Mean age at first sex	21.6
% Had premarital sex with another woman than the spouse	61
% Had multiple sexual partners in the past year	47
% Had sex with a sweetheart past year	7
% Had sex with a FSW past year	40
% Drunk alcohol before last sex with FSW	62

Type of paid sexual partners reported by moto-taxi drivers in the past year

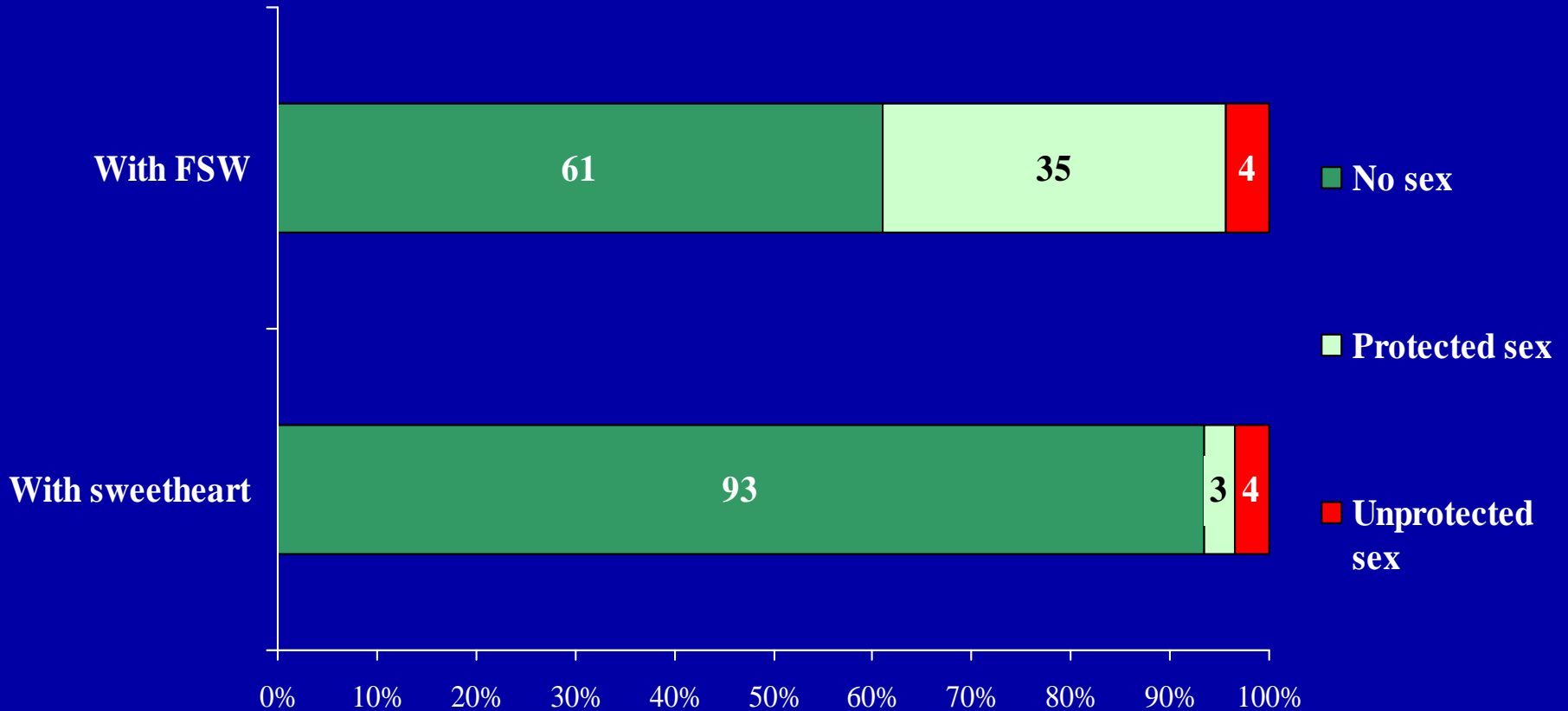


Condom use

	Moto taxi
Used condom at last sex with spouse (%)	16.4
Used condom at last sex with sweetheart (%)	71.7
Used condom at last sex with FSW (%)	95.2
Had condom breakage in past 3 months (%)	10
Used two condoms at a time at last commercial sex (%)	60
Where did you get your last condom? (%)	
- Brothel	67
- Pharmacy	21
- Guest house / hotel	5
- Other	7

Percentages reporting unprotected sex, by type of partner

(DFSW past year, sweetheart past 3 months)



Reported symptoms of STI past year & care seeking behavior

	Moto Taxi
Any symptom of STI in the past year (%)	2.9
Urethral discharge in the past year (%)	1
Facility used at last episode of STI (%)	
- Clinic	57.9
- Pharmacy	36.8
- No treatment	5.3

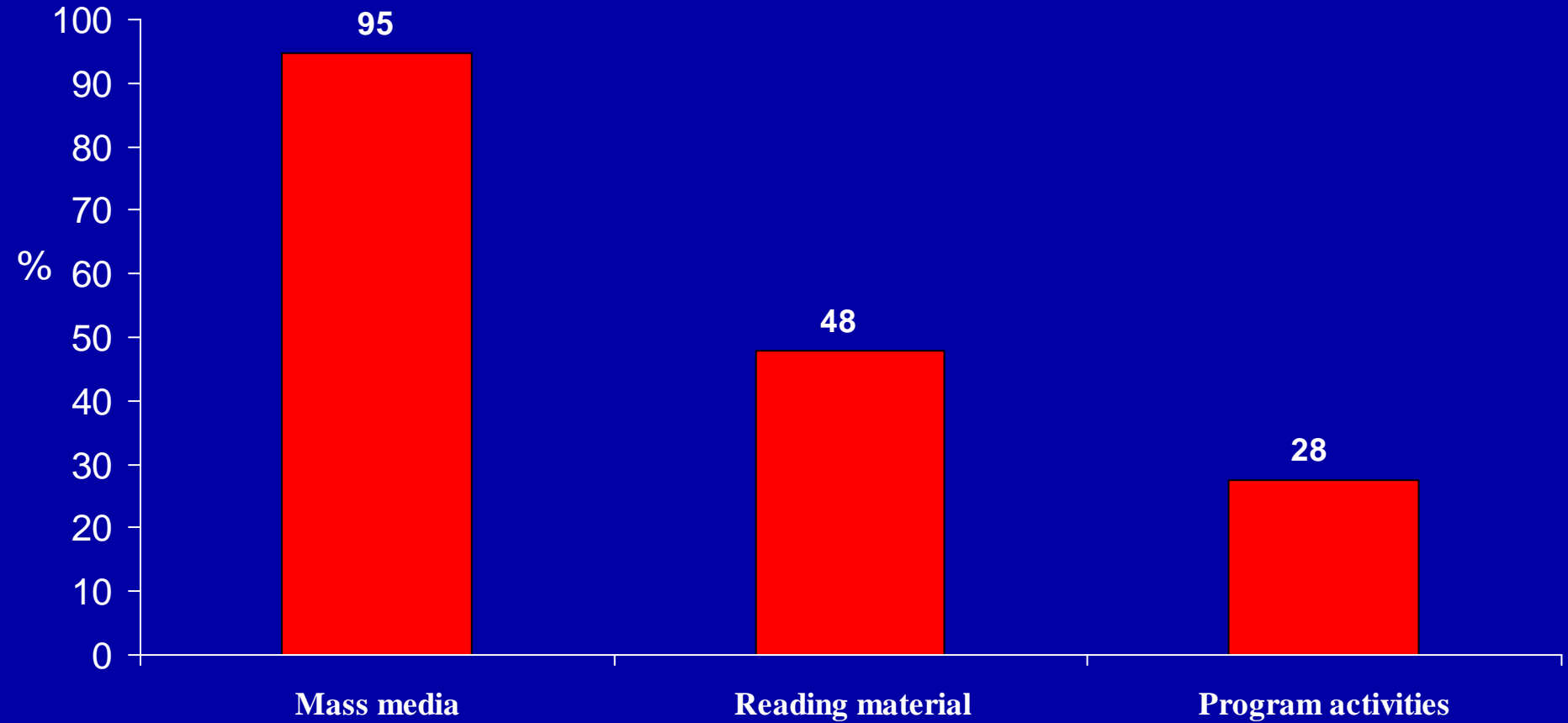
Use of VCCT services

	Moto Taxi
Had HIV test in the past year (%)	20
Facility used at last test (%)	
VCCT	42
Private laboratory	19
Public hospital	37.7
Received results at last test (%)	91.8
Received counseling at last test (%)	82.3

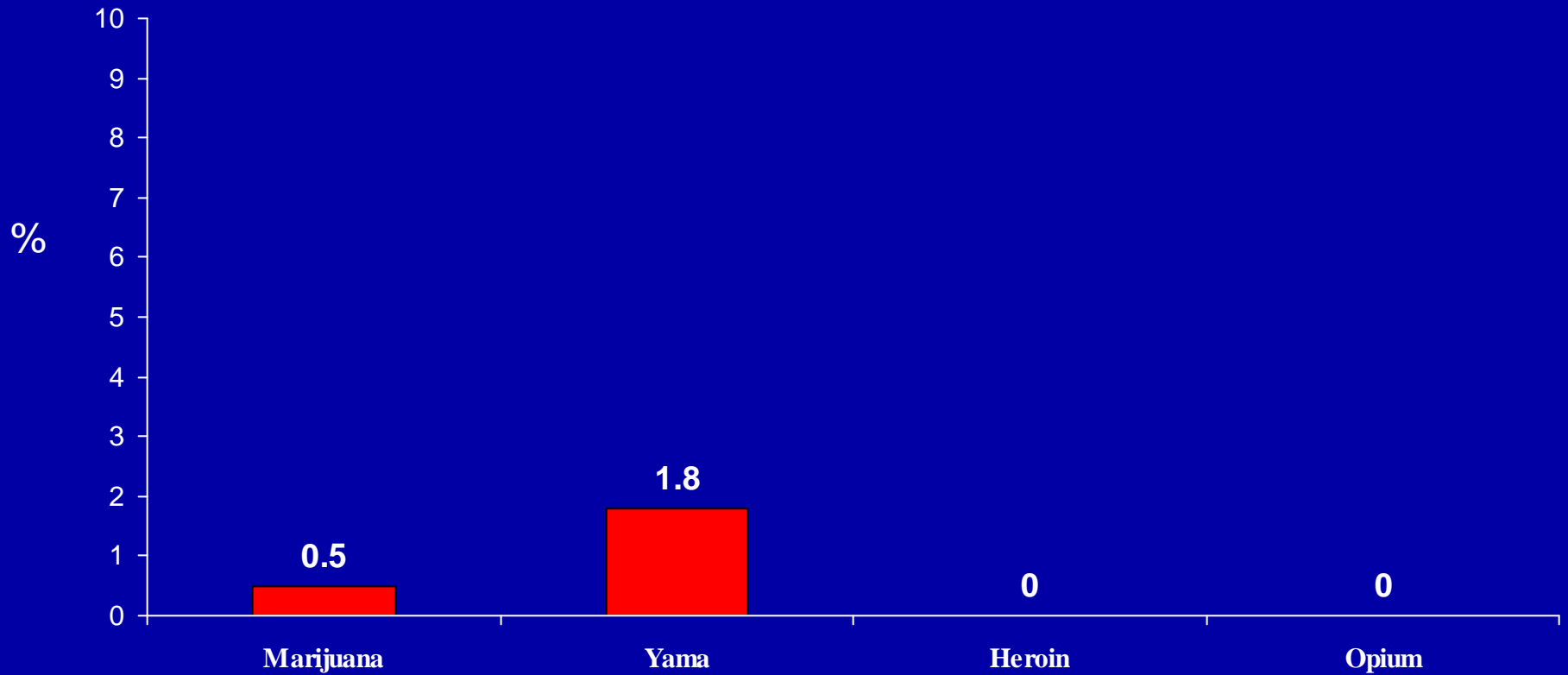
Knowledge of Continuum of Care

	Moto-taxi
Know that ART are available (%)	86.7
Believe can get ART if needed (%)	90.5
Know OI / ART clinics (%)	51.5
Know Home based care services (%)	28.8

Sources of HIV/AIDS Information received in the past 3 months



Drug use among Moto-taxi drivers



Men who have Sex with Men

Short hair MSM

Long hair MSM (Transgender)

Socio-demographic Characteristics

	Short hair	Long hair
Mean (years)	23.7	23.8
Age < 20 years old (%)	24	24
with high school or university level (%)	49	44
Married (%)	8	6
Profession (%)		
- Unemployed	18	13
- Student	32	22
- Farmer / laborer	15	8
- Hairdresser	7	21
- Sex workers	2	6
- Other	29	32
Lived for 12 months or less in this city (%)	14	5
Has not lived away from family in the past year (%)	48	48

Sexual Behaviors

	Short hair	Long hair
Never had penetrative sex (%)	4	4
Mean age at first sex (years)	18.8	17.6
First sexual partner (%)		
- Man	30	93
- Woman	56	5
- Transgender	14	2
Ever sold sex (%)	36	60
Age at first selling sex (%)		
- 9 to 15	5	13
- 16 to 19	57	65
- 20+	38	22

Sex with women

	Short hair	Long hair
Had sex with a woman past year (%)	66	7
Had sex with a FSW past year (%)	50	6
Had sex with multiple FSW past month (%)	31	2
Sold sex to women past month (%)	17	3
Sold sex to a woman past year (%)	18	3
Sold sex to multiple women past month (%)	10	0

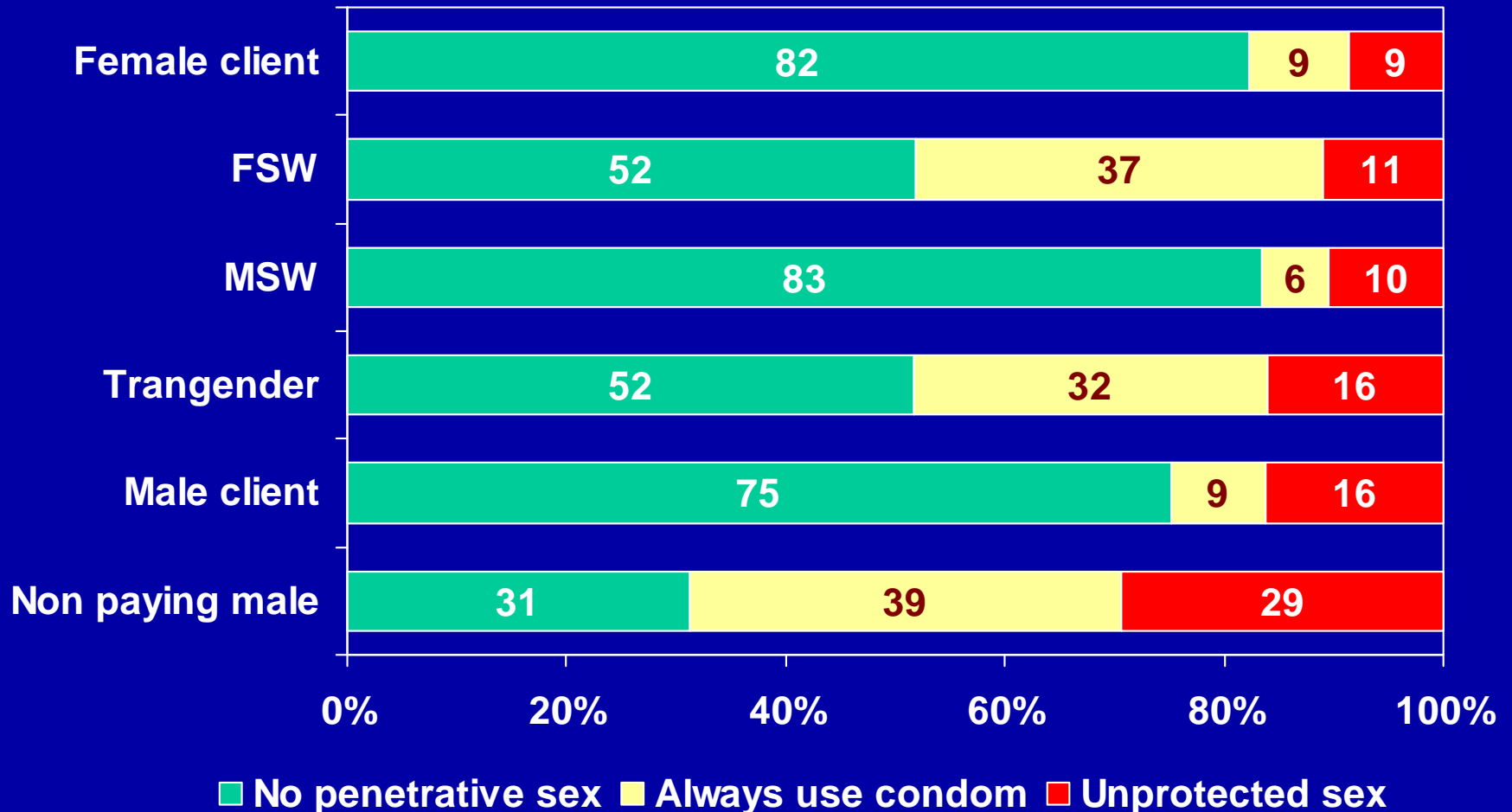
Sex with men

	Short hair	Long hair
Mean number of male partners past month	2.9	5.7
Never had anal sex (%)	16	7
Male partners in the past year (%)		
- Non paying & non paid partners	77	91
- Male Sex Worker (MSW)	18	32
- Client	27	44
- Transgender	54	6

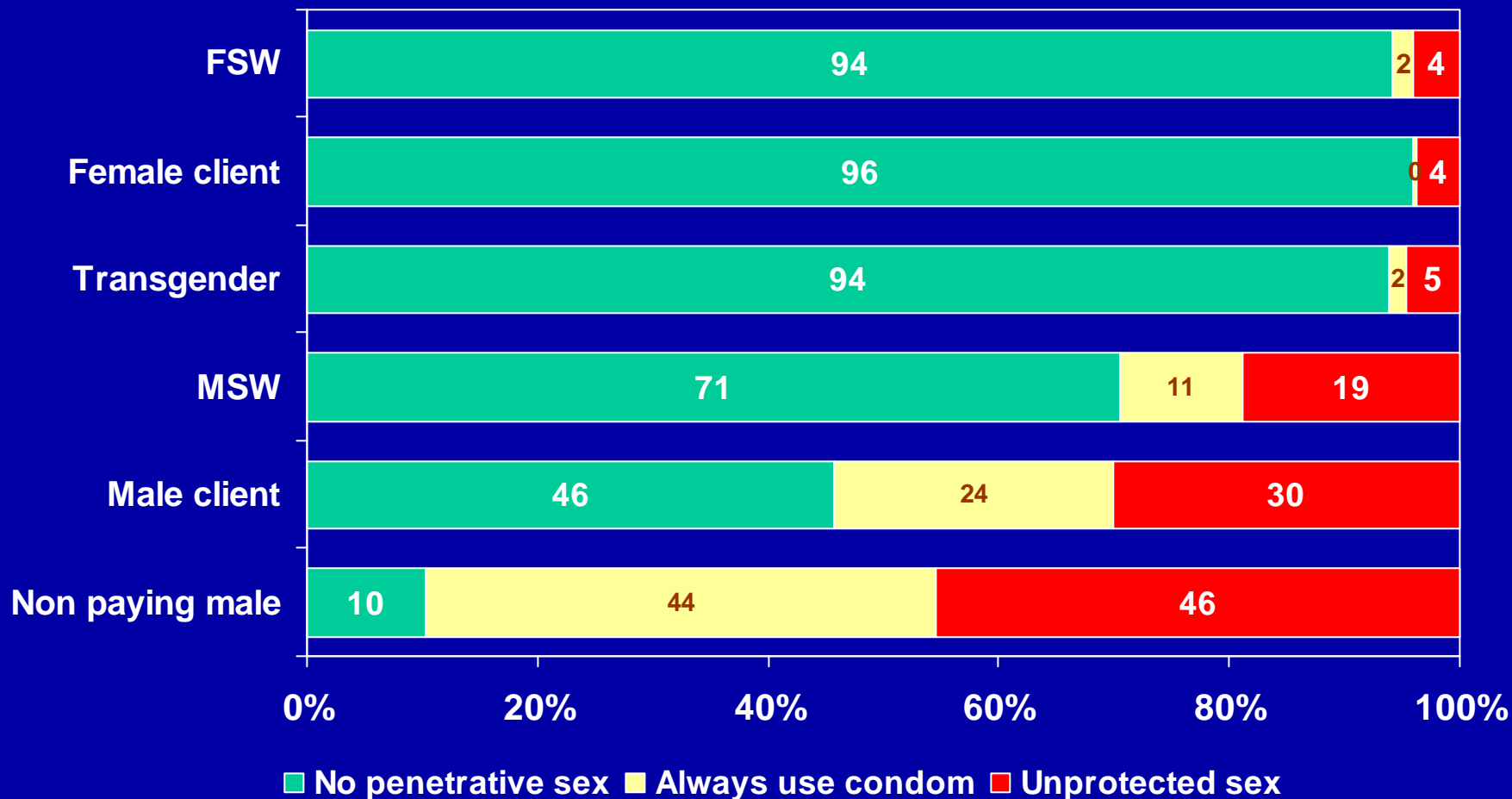
Condom Use at Last Sex



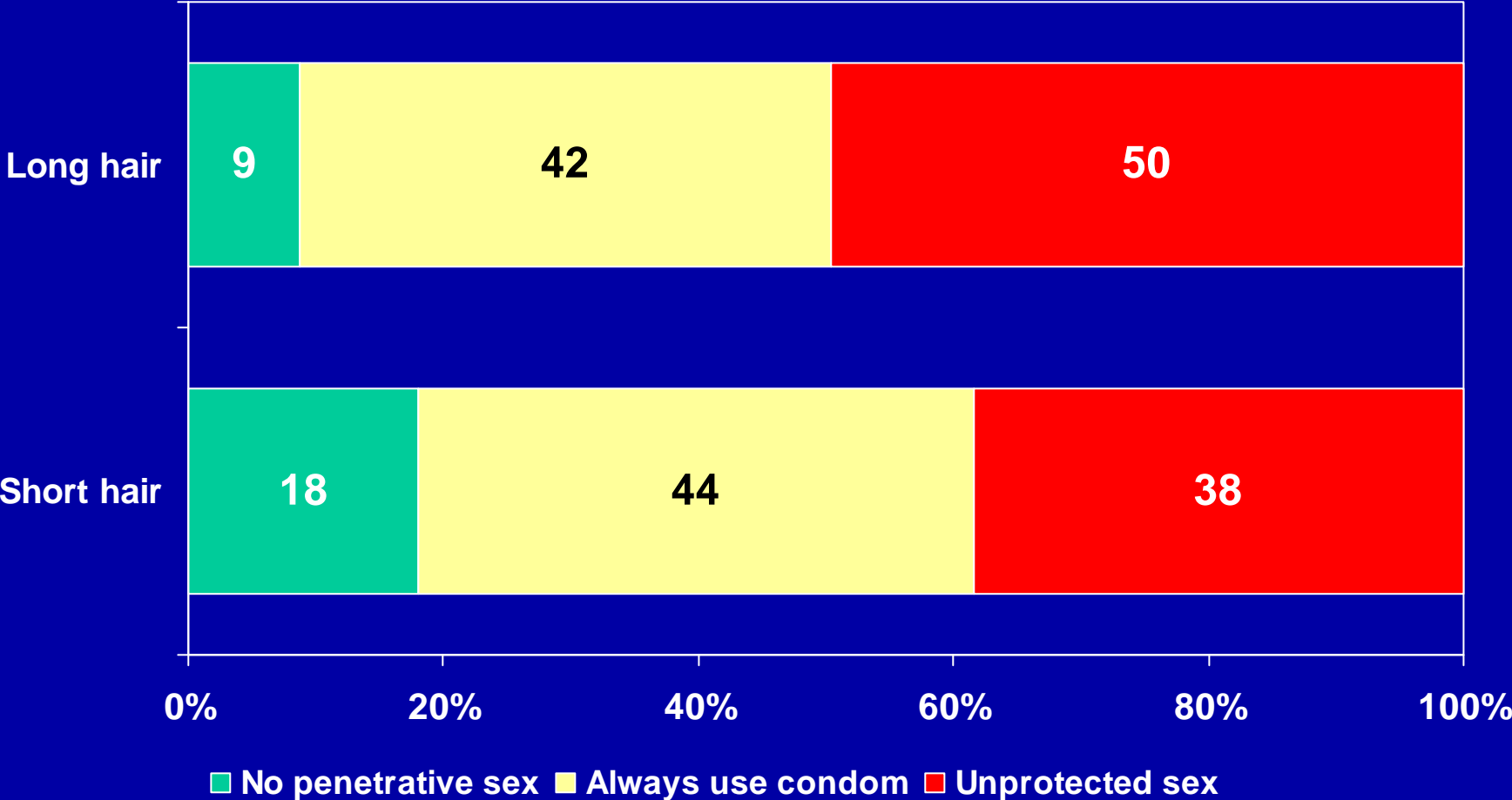
Sexual risk in the past month by types of partner, among short hair MSM



Sexual risk in the past month by type of partners, among long hair MSM



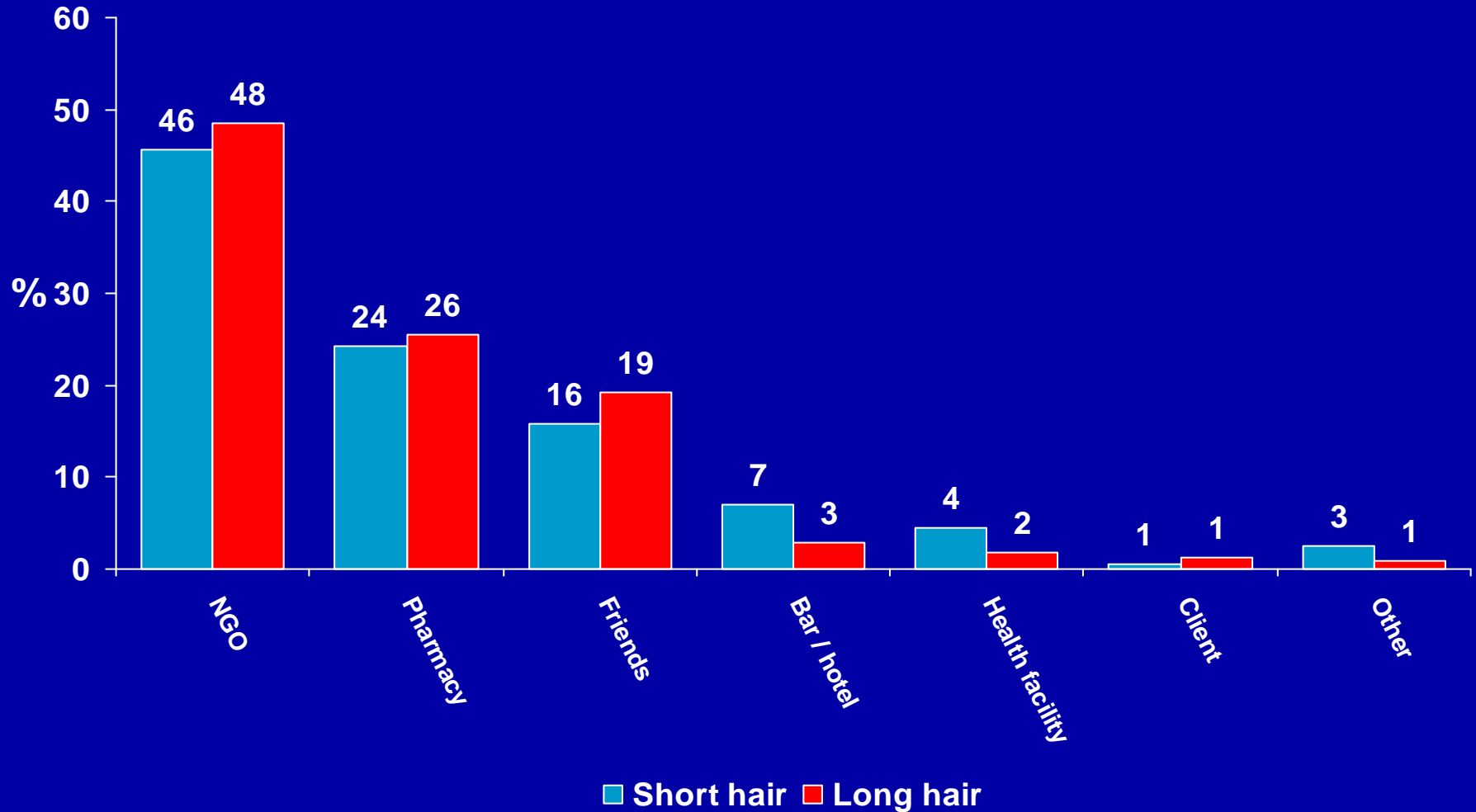
Sexual risk with male partners in the past month by type of MSM



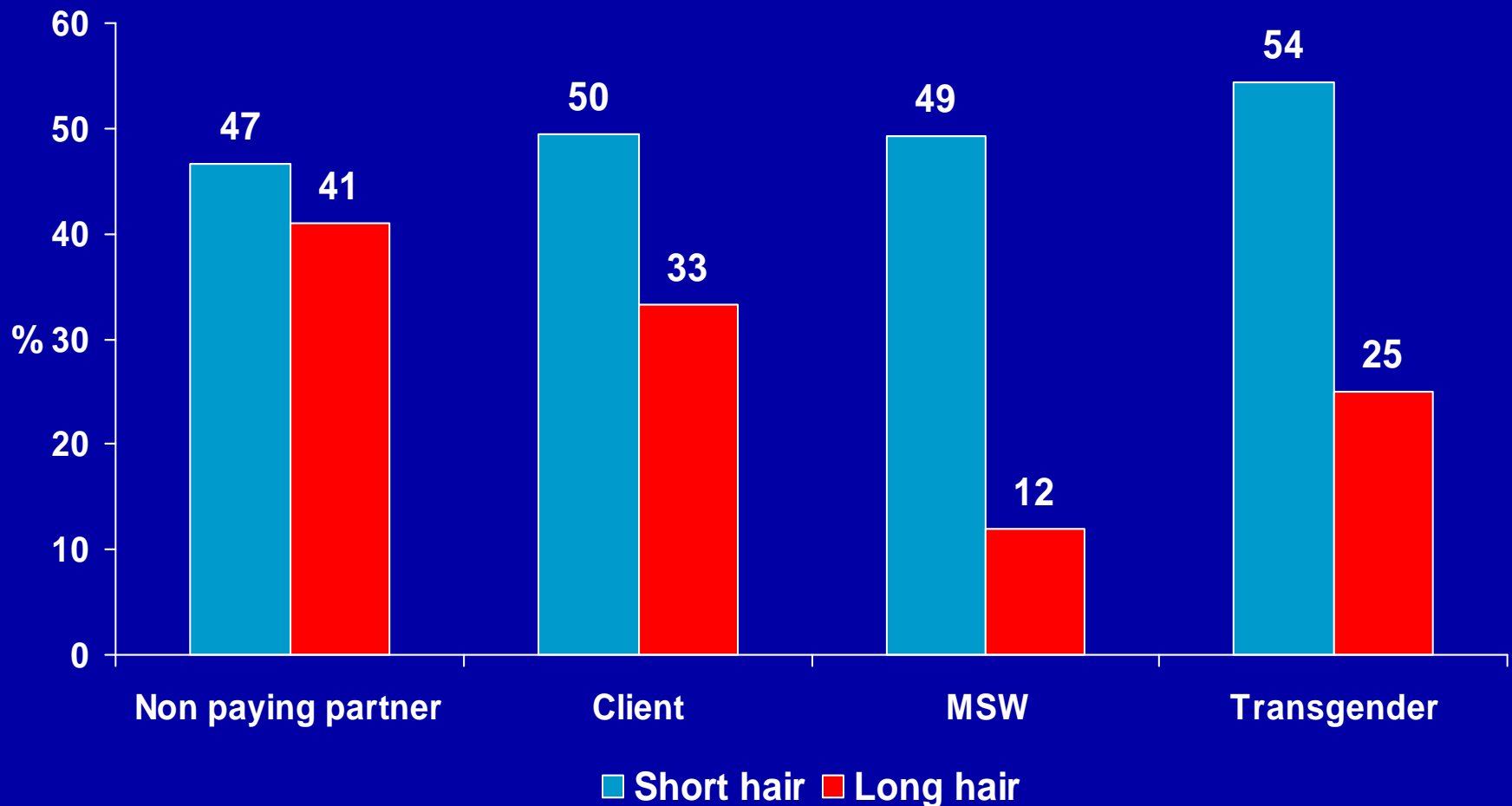
Condom breakage in the past 3 months, by types of MSM



Places Where MSM obtained their last condom



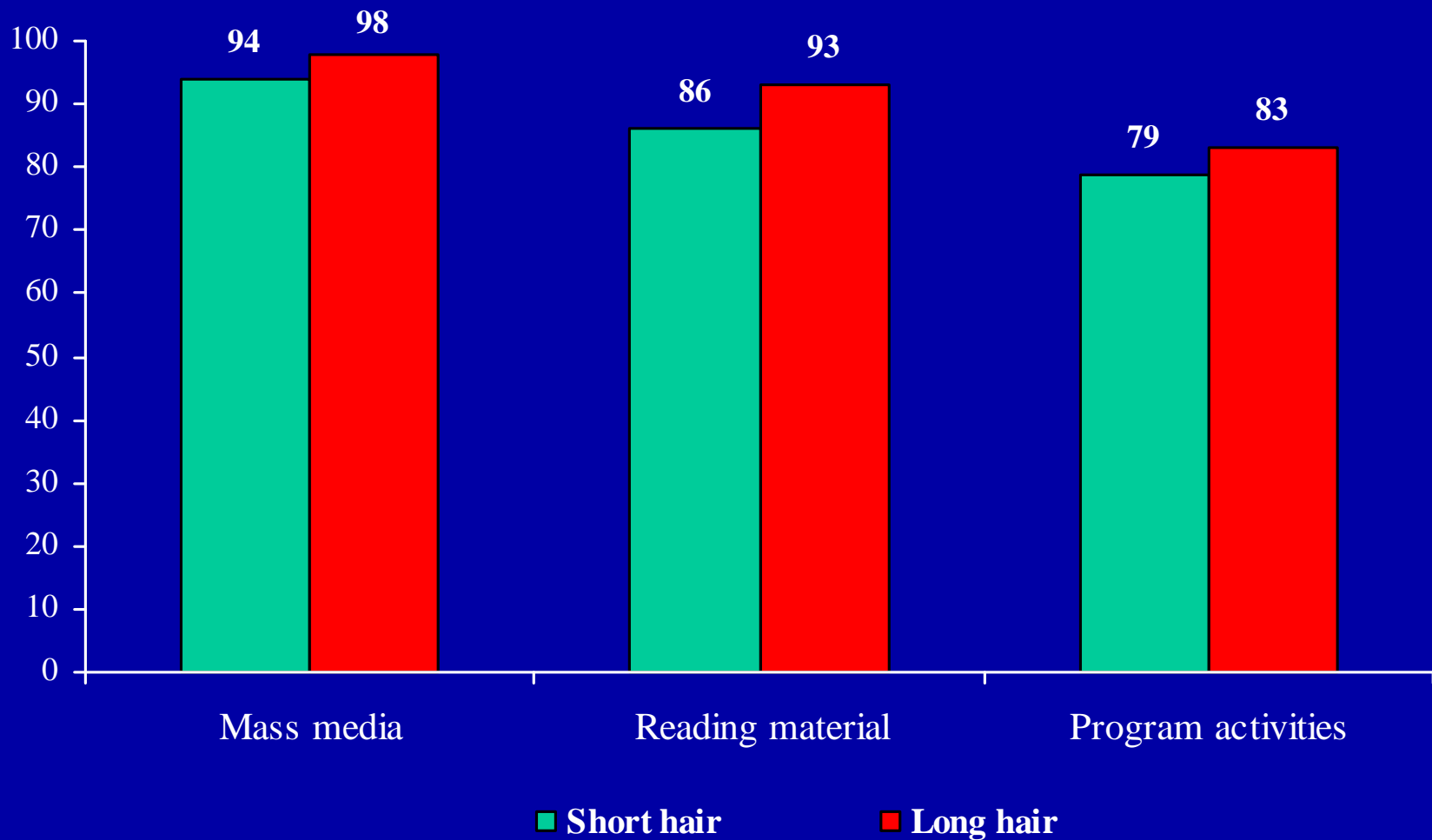
Always used lubricants in anal sex with male partners in the past month, by type of MSM



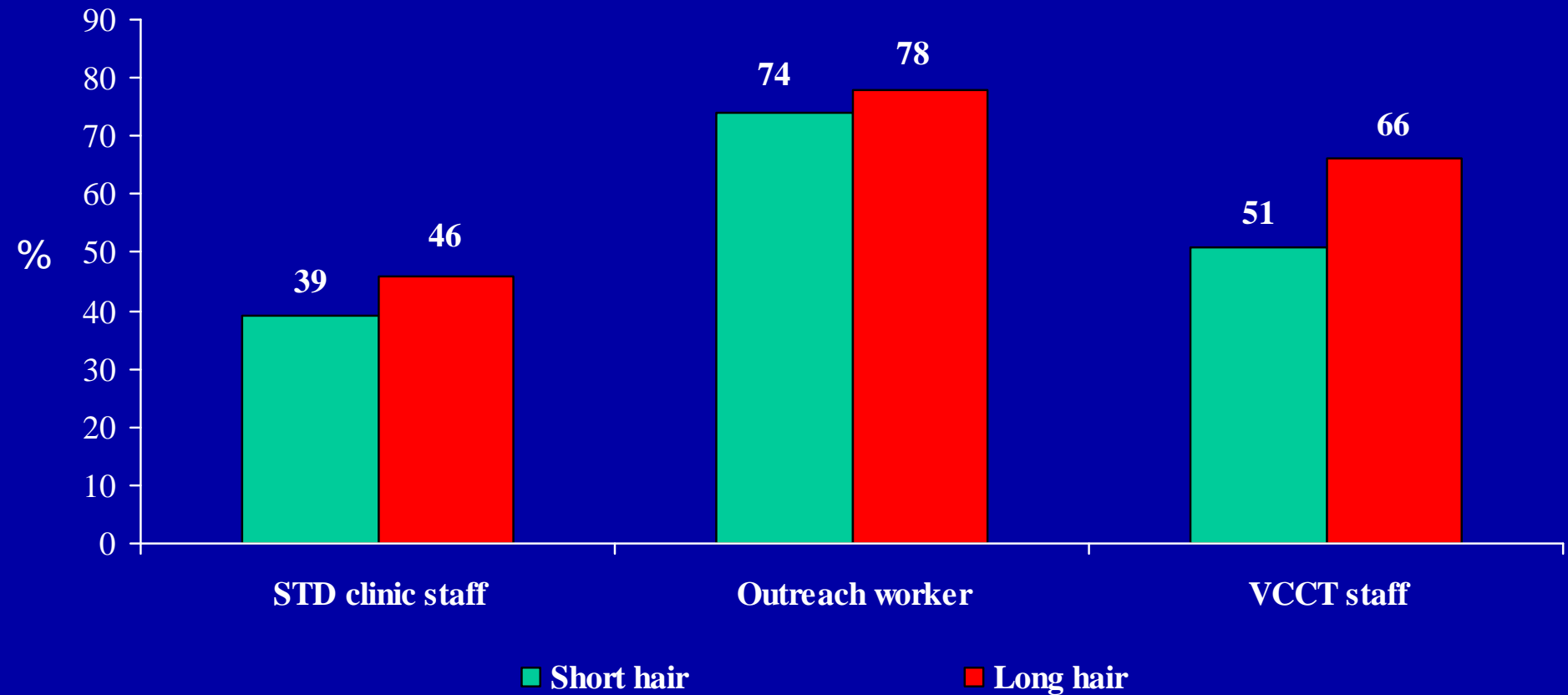
Reported symptoms of STI & care seeking behavior at last episode of STI

	Short hair	Long hair
Never had STI check-up (%)	52	44
Any symptom of STI in the past year (%)	17	20
Urethral discharge in the past year (%)	10	13
Facility used at last STI (%)		
- Clinic	60	84
- Pharmacy	7	7
- No treatment	32	7
Disclosure MSM behavior to STI clinic staff at last visit (%)	55	69
Referred by peer-educator at last visit to STI clinic (%)	48	59

Sources for HIV/AIDS information



Providers of HIV/AIDS information to MSM in the past 3 months



Use of VCCT services among MSM

	Short hair	Long hair
Had HIV test in the past year (%)	57	66
Facility used at last test (%)		
VCCT	69	79
Private laboratory	12	9
Public hospital	17	12
Received results at last test (%)	94	98
Received counseling at last test (%)	94	98

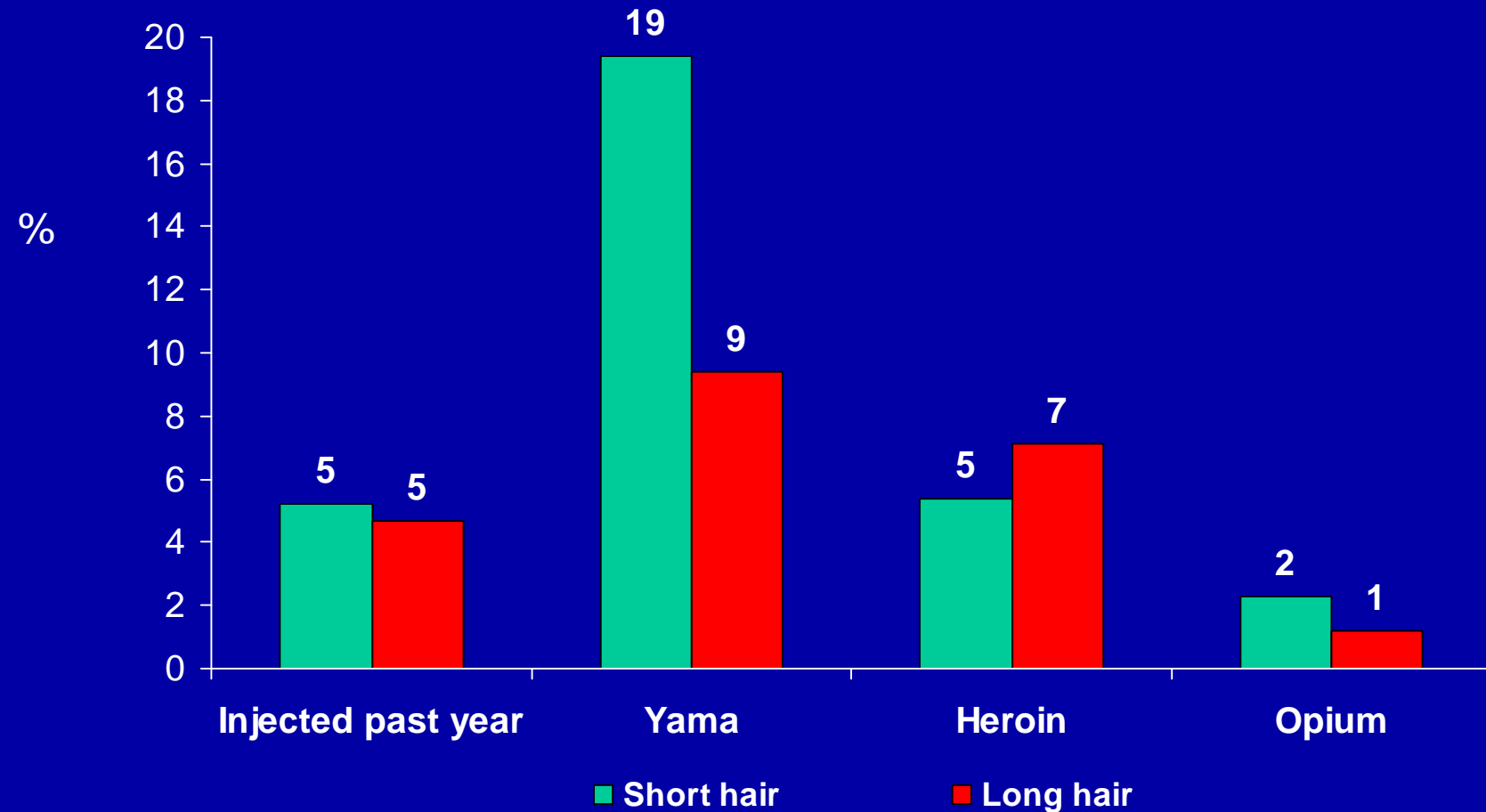
Attitude towards PLWHA

	Short hair	Long hair
Would you provide care to a HIV infected family member (%)	89	89
Would you buy food from a PLWHA (%)	88	94
Would you keep it secret if a family member is infected with HIV (%)	61	61

Knowledge of Continuum of Care

	Short hair	Long hair
Have friends or relatives infected with HIV (%)	39	42
Know that ART are available (%)	93	97
Believe can get ART if needed (%)	82	87
Know OI / ART clinics (%)	58	53
Know Home based care services (%)	44	62

Drug Use among MSM, by types of MSM



BSS Trends 1997-2007

Are there any changes in risk behaviors over time?

Sample sizes by years and by groups

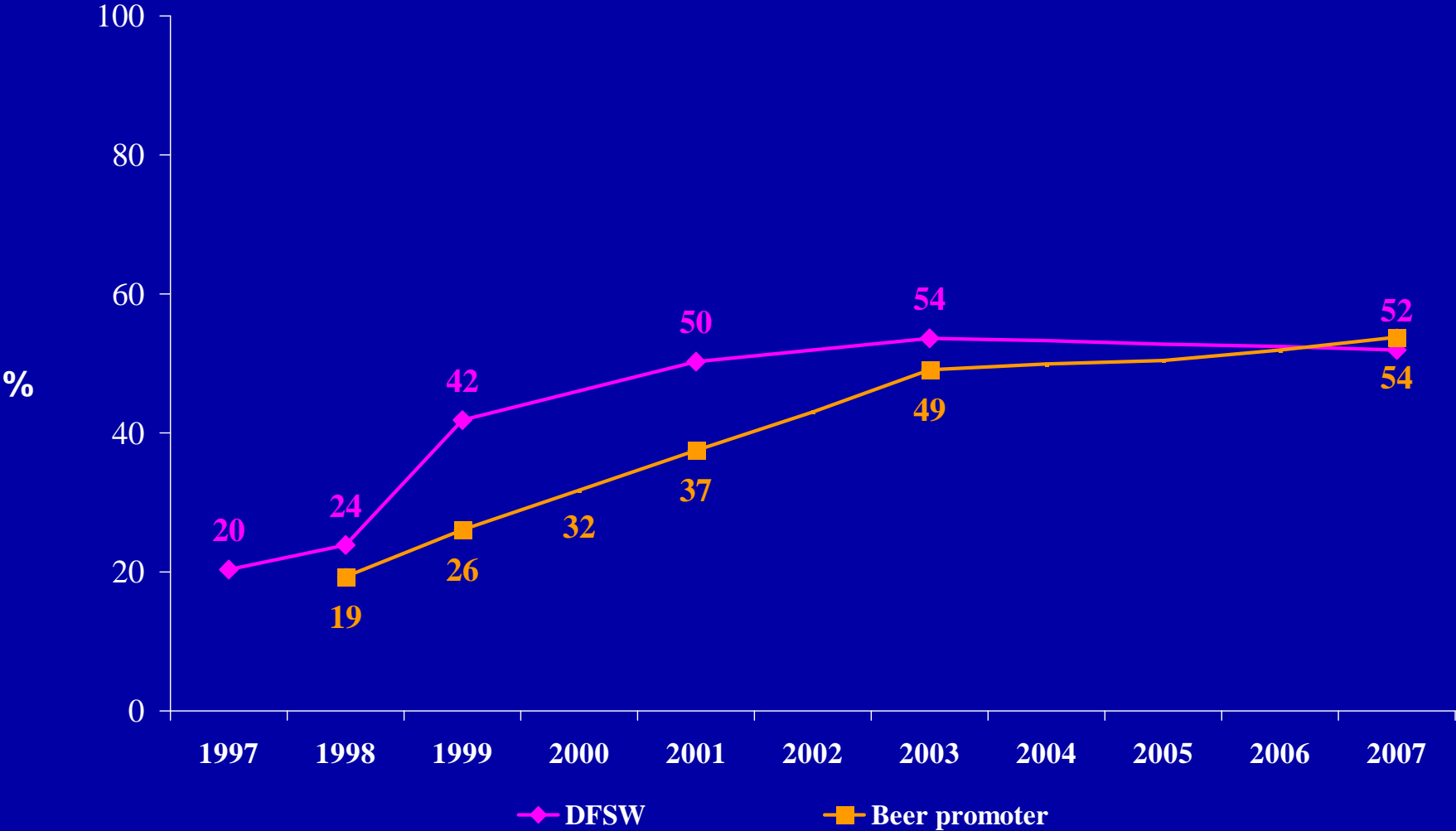
BSS	Sites	Target groups	Sample size
1997	KPC, SHV, BTB, SRP, PNP	DFSW, Beer girls, Working women, Military, Police, Moto-taxi drivers, Vocational students	4,356
1998	KPC, SHV, BTB, SRP, PNP	DFSW, Beer girls, Working women, Military, Police, Moto-taxi drivers, Vocational students	4,275
1999	KPC, SHV, BTB, SRP, PNP	DFSW, Beer girls, Military, Police, Moto-taxi drivers	3,400
2000	KPC, SHV, BTB, SRP, PNP	Household Male Survey	3,166
2001	KPC, SHV, BTB, SRP, PNP	DFSW, Karaoke & Beer girls, Military, Police, Moto-taxi drivers	2,961
2003	KPC, SHV, BTB, SRP, PNP, PST, KHK, KRT, TKO, KPT	DFSW, Karaoke & Beer girls, Mil/pol, Moto-taxi drivers	4,858
2007	KPC, SHV, BTB, SRP, PNP	DFSW, Karaoke, Beer girls, Beer garden staff, Moto-taxi drivers & MSM	3,069

Female groups

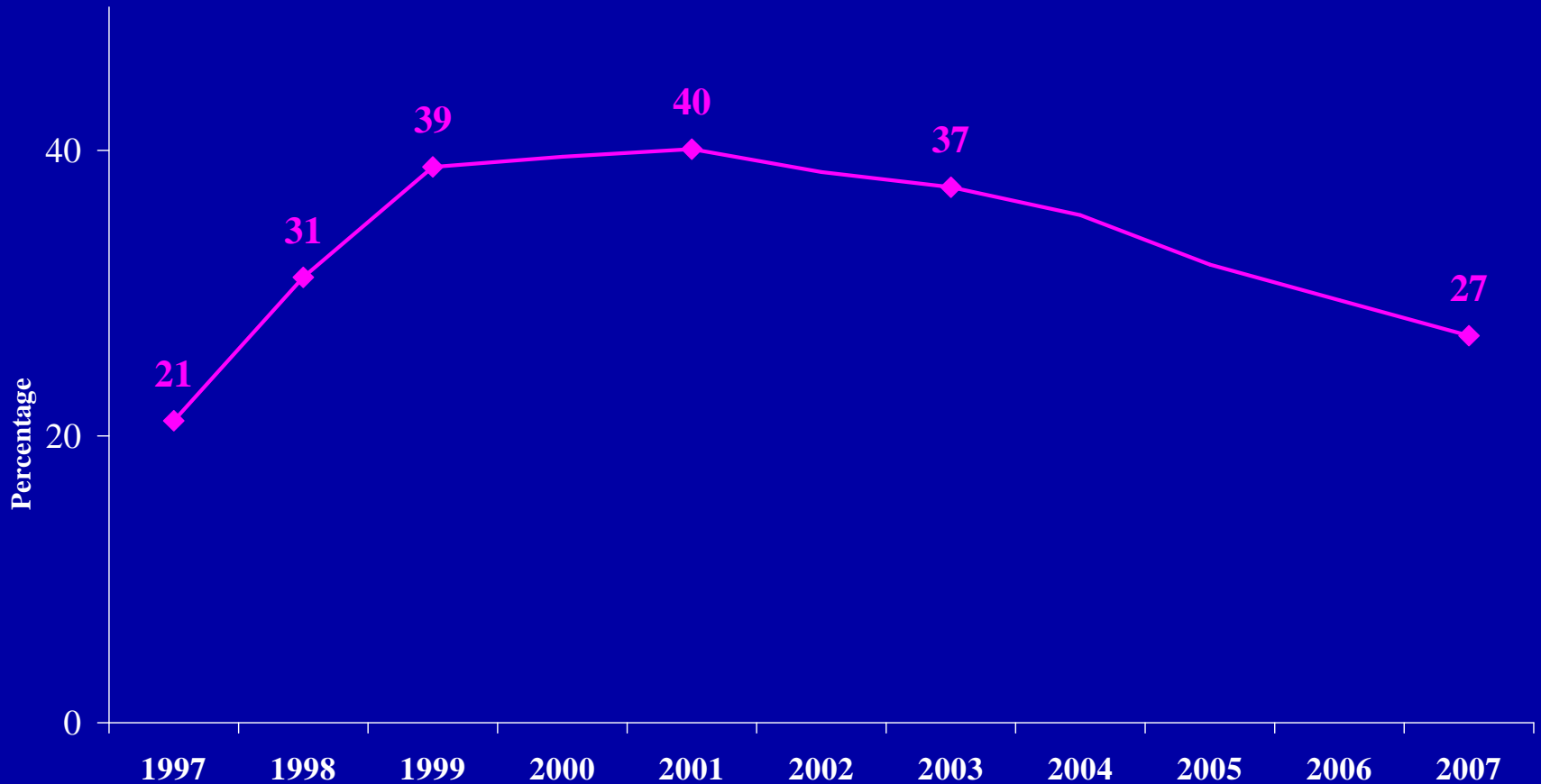
Consistent condom use with clients



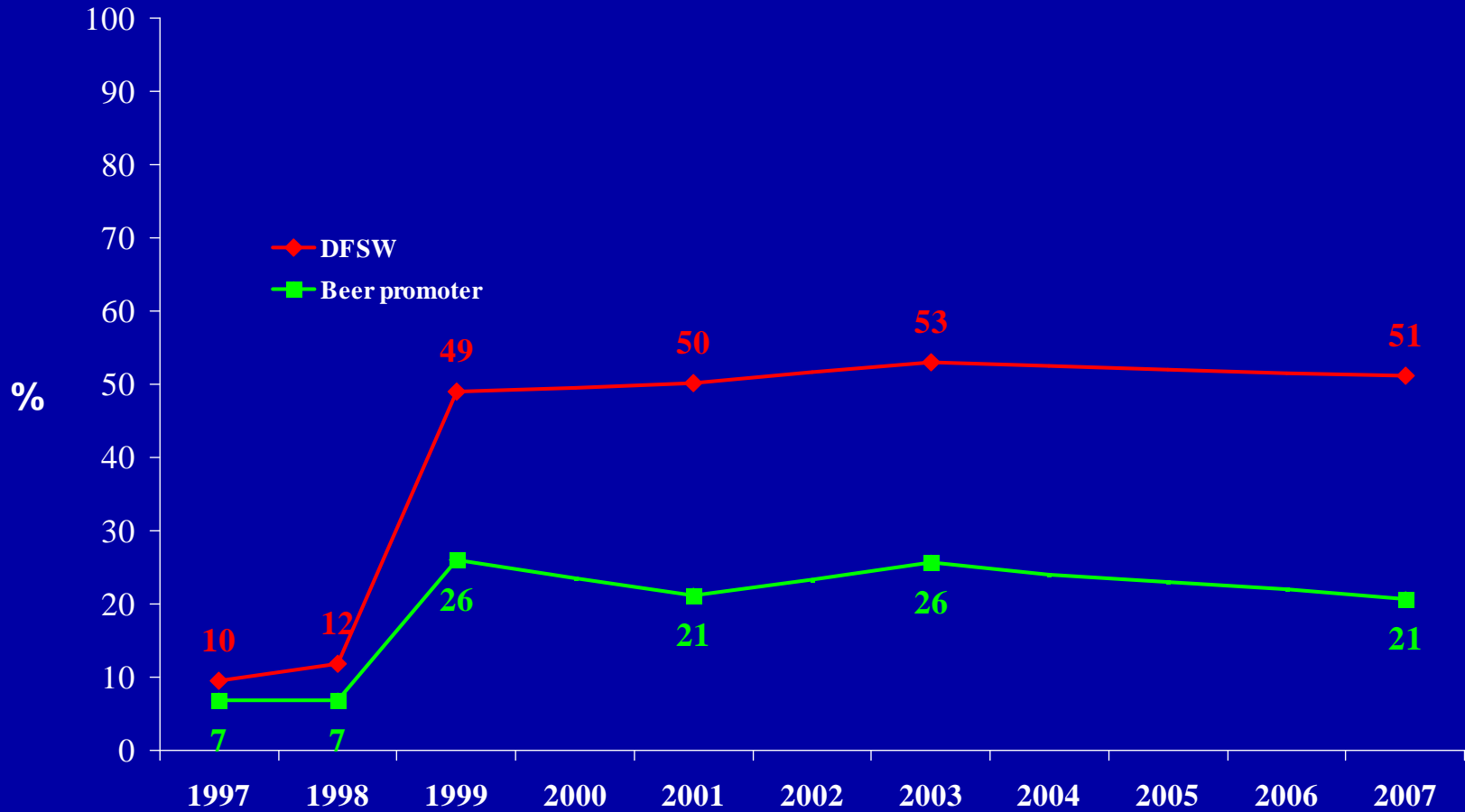
Trends in consistent condom use with sweetheart



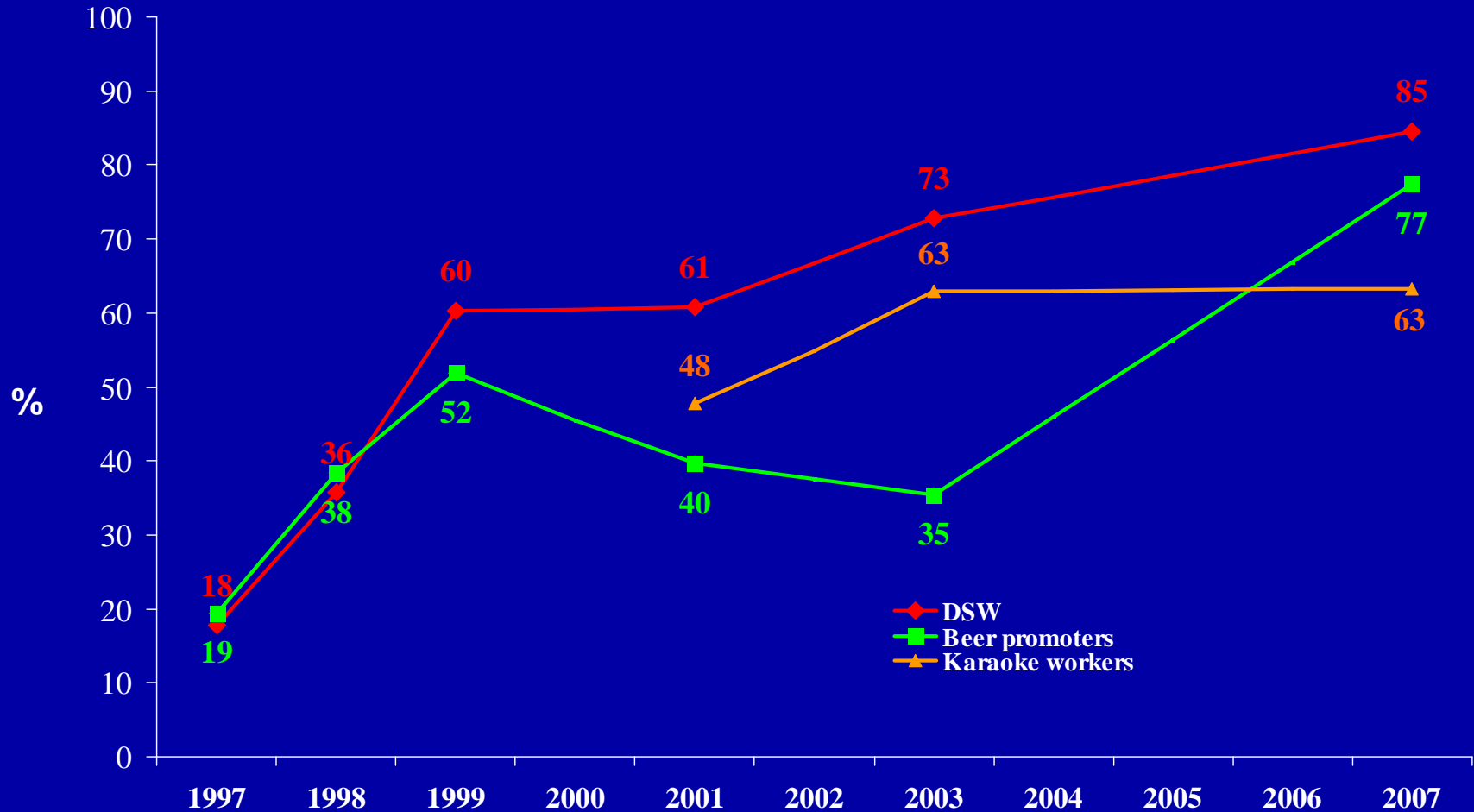
Percent of Beer Promoters Reporting Selling Sex Past Year



STI Care Seeking at the Public/STD Clinics



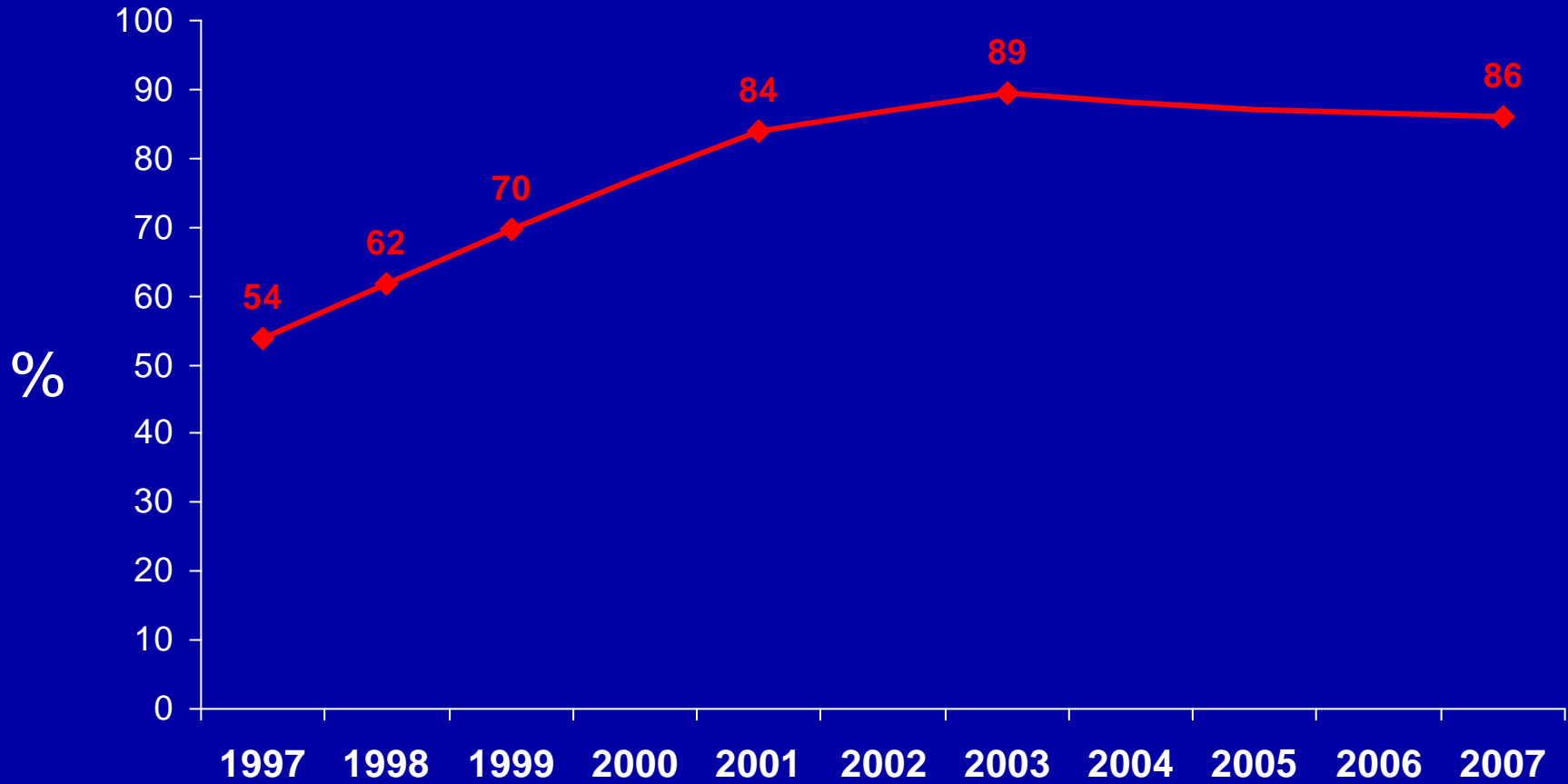
STI Care Seeking at Medical Settings*



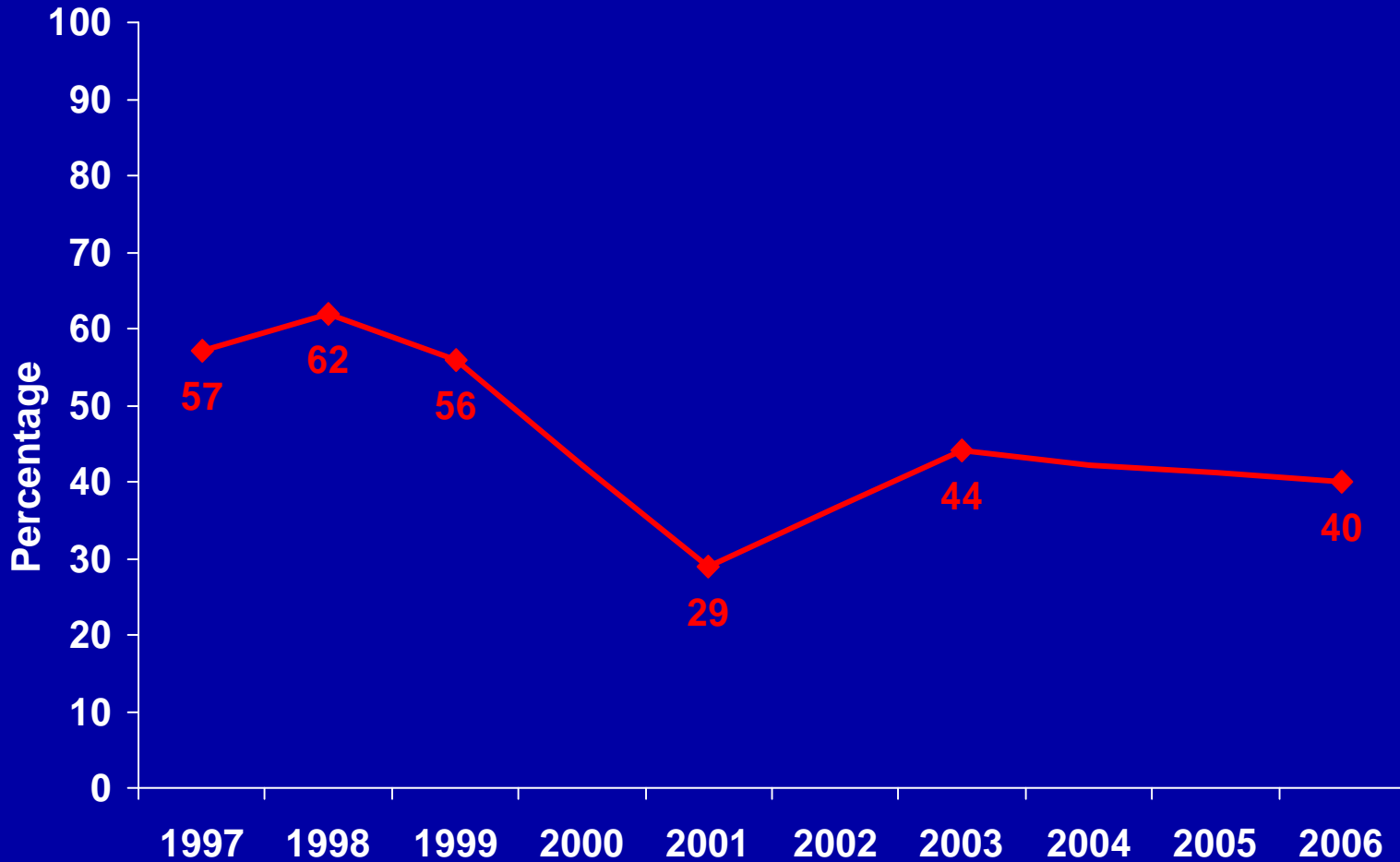
* Medical settings include public, NGOs and private

Moto-taxi driver

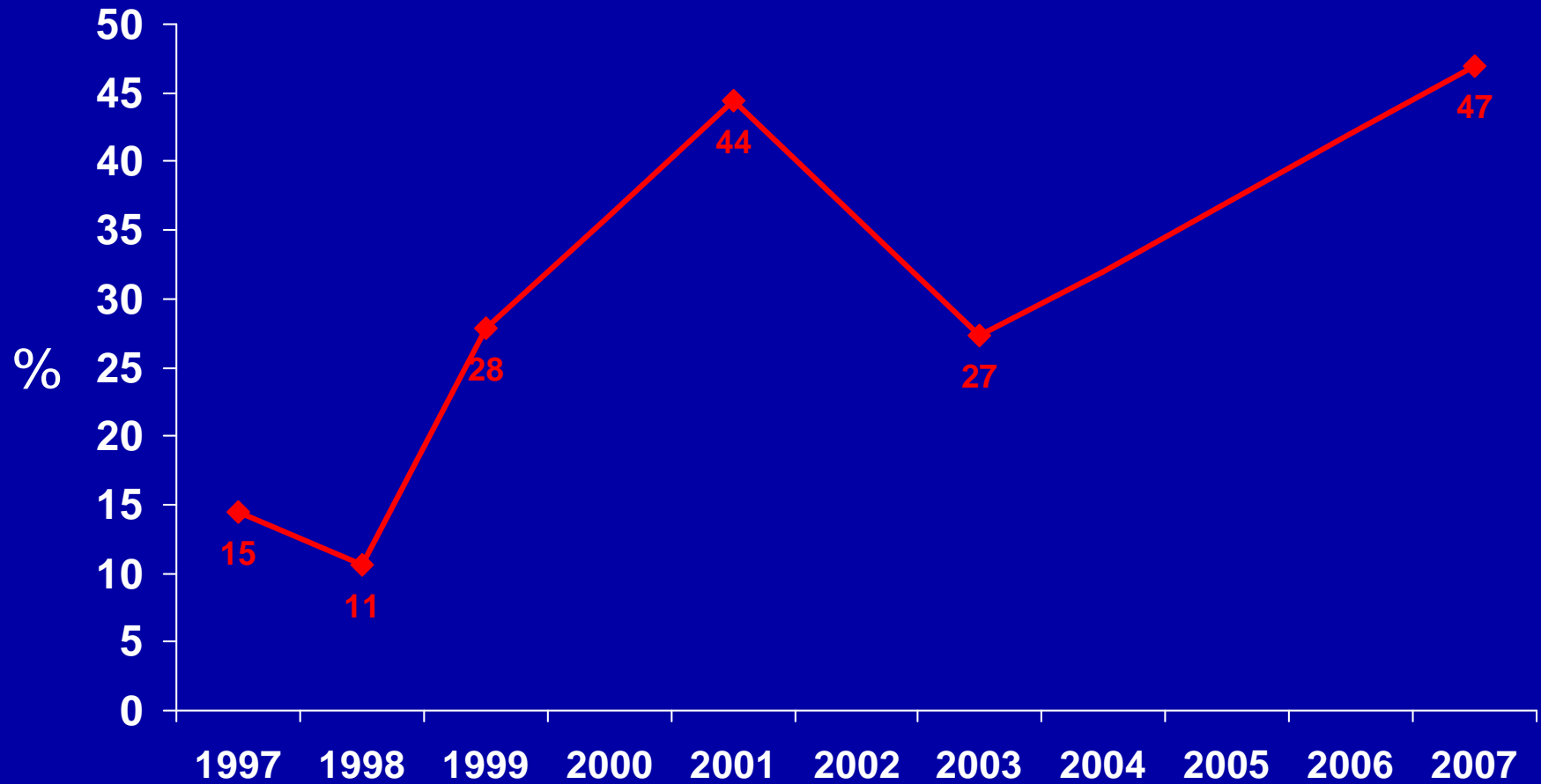
Consistent condom use with sex worker in past 3 months



Commercial Sex in the Past Year



Consistent Condom Use with Sweethearts



Conclusions: Female Groups (1)

- DFSW and IDFSW remain very mobile
- There is overlap between DFSW and IDFSW:
 - About 21% of DFSW reported working previously as Karaoke workers and about 8% worked as Beer girls
 - About 15% of Beer promoters, beer garden workers and Karaoke women reported previously working in brothels
- Female beer garden workers had less sexual partners and were less likely to sell sex than other female groups in the survey

Conclusions: Female Groups (2)

- Female groups reported using condoms more consistently with clients than with sweethearts
- Mass media is the main source of HIV information for female groups
- Program activities related to HIV/AIDS poorly reach karaoke and beer garden workers compared to beer promoter and brothel based sex worker
- Direct female sex workers have higher exposure to HIV/AIDS information and education than other female groups

Conclusions: Female Groups (3)

- Prevalence of self-reported vaginal discharge in female groups was high
- Uptake of medical services at last reported episode of STI remain low for beer garden and karaoke
- The support from brothel owner is critical to encourage DFSW to visit STI clinics
- The Uptake of HIV test is still low in female groups, except DFSW

Conclusions: Female Groups (4)

- Most women from the female surveillance groups know about and where to access continuum of care services
- VCCT is the main provider for HIV testing to female groups
- Discrimination against PLWHA was seldom reported by female groups
- Yama was used by a substantial proportion of DFSW but only by few of other female groups

Conclusions: Moto-taxi driver (1)

- High proportion of Moto-taxi driver reported having multiple sexual partners in the past year
- DFSW, followed by Karaoke workers, were their main paid sexual partners
- Consistent condom use with female sex workers was high, but the use of condom with sweetheart and within couple remain low

Conclusions: Moto-taxi driver (2)

- A large proportion of moto-taxi driver did not use medical service at their last episode of STI
- HIV testing remained very low among this group and most tests are not performed at VCCT
- Mass media was the major source of HIV/AIDS information to moto taxi driver
- Drug use was low and Yama was the most common drug

Conclusions: MSM (1)

- MSM have many different types of partners
- Short hair MSM reported having sex with both men and women. About half of them having sex with female sex worker
- Unprotected sex with male partners was more frequent among long hair than short hair

Conclusions: MSM (2)

- About half of the MSM never had STI check up
- Most MSM used medical services at their last episode of STI
- The use of lubricants remained low in MSM group
- NGOs offices were the places where MSM commonly reported having access to condom

Conclusions: MSM (3)

- Most of MSM received HIV/AIDS information from mass media and reading materials
- Outreach workers was the main providers of sexual health information to MSM
- About 60% of MSM reported having HIV test in the past year and the testing was done at VCCT
- MSM showed supportive attitude toward PLWHA
- MSM knew about and where to get continuum of care services
- Drug use was high among MSM compared to other BSS groups

Conclusions: Trends in Risk Behavior (1)

- Among female group, consistent condom use with client and consistent condom use with sweetheart has not changed since 2003
- Although consistent condom use among DFSW is over 90%, condom use with sweethearts remains low and stable over years
- Beer girls and DFSW displayed similar trends for both consistent condom use with clients and consistent condom use with sweethearts
- The use of services at medical settings for STI care increased among beer promoter and karaoke worker. However, the use of public/STD clinic did not increase

Conclusions: Trends in Risk Behavior (2)

- Consistent condom use with commercial partner among moto-taxi driver has not changed since 2001
- The consistence condom use with sweetheart did not significantly increase
- The reported use of commercial sex service has been slightly decreased

Recommendations (1)

- Future rounds of BSS should continue including MSM group, so a trend could be established for this group
- More intervention programs, targeting lubricant use, STI check up, should be developed for MSM, specially short hair MSM since they may become another bridging group
- Efforts are needed to sustain high consistent condom use with commercial partners in all high risk groups
- There is a need for innovative approaches to address sexual risk with non-paying partner, such as sweethearts in all groups

Recommendations (2)

- STI services should find effective approaches to be offered to men who have sex with men and IDFSW
- VCCT services should be better promoted to attract more people, especially male clients of female sex workers
- Condom promotion and risk reduction have been highly successful to date in Cambodia; However, program efforts must be maintained to sustain these changes

BSS Team

- Surveillance Unit, NCHADS
- Research Unit, NCHADS
- Data management Unit, NCHADS
- Provincial Health departments and AIDS Offices of
 - Battambang
 - Siem Reap
 - Phnom Penh
 - Kampong Cham
 - Shihanuk Ville
- MSM networks in all 5 cities/provinces (Men Health Clinics, KWCD, MHSS)
- Dr. Guy Morineau (Family Health International)

Acknowledgments

Our Special thanks and appreciation to institutions and organizations who provide management, technical and financial support to this study

