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Protected sex with paid sexual partner among married men in Indonesia

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ABSTRACT

Background: Married men who are male clients of sex workers play an important role as "bridge population" of HIV infection from the concentrated epidemic population to the general population. This study aimed to investigate the protected sex with last paid sexual partner among currently married men in Indonesia.

Methods: A nationally representative population-based survey, 2012 Indonesia Demographic and Health Survey (IDHS) which covered 33 provinces in Indonesia was applied in this study. Out of 9,306 currently married men, 510 records of married men who reported for ever paying someone for having sex were eligible for this study. A dependent variable was protected sex (i.e. condom use) at last sex with a paid sexual partner whilst independent variables consisted of socio-demographic factors, spousal communication on HIV prevention, knowledge of HIV prevention, and attitude of condom use. Binary logistic regression was applied for bivariate and multivariate analysis.

Results: Prevalence of condom use with a paid sexual partner at last sex among currently married men was 27.86% [95%CI=23.89-32.20]. Based on multivariate analysis, married men were less likely to use a condom with a paid sexual partner if they aged $\geq$ 40 years old (OR=0.48; 95%CI=0.30-0.76) versus those aged $<$ 40 years old and worked in some sectors: clerical (OR=0.22; 95%CI=0.08-0.61), sales (OR=0.40; 95%CI=0.17-0.95), agricultural/self-employed (0.32; 95%CI=0.13-0.75), skilled manual (OR=0.38; 95%CI=0.18-0.79) compared to those working in professional/technical/engineering sectors. However, those who were from poorer (OR=2.28; 95%CI=1.08-4.82) and richest household (OR=3.08; 95%CI=1.32-7.20) were more likely to perform protected sex compared to the poorest ones. In addition, the likelihood of protected sex also increased when married men had spousal communication on HIV prevention (OR=1.84;95%CI=1.17-2.90), knew that using condoms can reduce HIV infection (OR=2.15; 95%CI=1.14-4.08) and had a positive attitude of using condoms can protect against diseases (OR=3.05; 95%CI=1.14-8.16).

Conclusion: Since condom use with a paid sexual partner was low, interventional approach by providing HIV-related information targetting married men who are clients of sex workers is essential. The intervention can be integrated with the current existing programme on key affected population (KAP), such as FSWs as the potential sexual partner of married men.

Keywords: Married men, clients, condom use, paid partners, protected sex, HIV, Indonesia
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1. Introduction

HIV epidemic in the Asia and Pacific region remains concentrated among key populations. They and their sexual partners accounted for almost two-thirds of new infections in 2014 [1]. Similarly, according to the integrated biological and behavioural survey (IBBS) in 2015, the HIV prevalence in Indonesia varied by key population such as 28.76% among people who inject drugs (PWID), 25.80% among men who sex with men (MSM), 24.80% among transgender people, and 5.30% among female sex workers (FSWs) [2, 3].

Even though with lower prevalence, FSWs are recognized as the key driver of HIV transmission in Indonesia [2, 3], in line with heterosexual intercourse as the common mode transmission of HIV [4]. Beyond those key populations, male clients of sex workers are viewed to play an important role as "bridging population" of HIV infection from high-risk populations to the general population [5, 6, 7, 8]. It is supported by the findings of national estimation that FSWs and clients contributed to 42-43% of new infections in 2012-2014 [9]. In addition, another fact reveals that a large number of AIDS

cases occurred among Indonesian housewives [10], which is probably attributable infection from their spouse who has been a client of sex workers.

A national estimation of key affected population (KAP) size in 2012 showed that clients of direct and indirect FSWs contributed as the largest population size of KAP, accounting for 5,229,686 [4,434,943-6,024,444] and 1,517,858 [1,177,982-1,857,729], respectively [11]. Even though there is no national figure available for the rates of protected sex among male clients, their risky sexual behavior can be confirmed by low rates of consistent condom use among their common paid sexual partners, such as direct and indirect FSWs that were 43.4% and 40.2%, respectively [3]. Moreover, more than 50% of male clients were estimated to have regular partners or married [12]. Therefore, they potentially become "bridging population" for widespread HIV transmission from concentrated epidemics to the general population such as women, married women, and newborns. Some published studies confirmed that risky sexual behavior, e.g., multiple partners and inconsistent condom use among male clients contribute to the spread of STIs and HIV among their other sexual partners, such as wives and lovers [7, 13, 14, 15]. Therefore, clients of sex workers are an important KAP which should be targetted for intervention.

Some previous studies attempted to explore condom use behavior among male clients. A qualitative study in Indonesia demonstrated that condom use was related to perceived of HIV risk infection, knowledge of HIV illness, access to condoms, and knowing FSWs as a high-risk group of HIV infection [16]. In addition, a limited number of published studies confirmed that several factors are associated with protected sex among male clients, such as socio-demographic characteristics (age, educational level, employment status), age at first paid sex, number of partners, self-efficacy, norms of condom use, and knowledge of HIV [17, 18, 19, 20, 21].

With a paucity of study on this issue in Indonesia, this study aimed to investigate the protected sex among currently married men with a paid sexual partner using a dataset from 2012 Indonesia Demographic and Health Survey (IDHS), a nationally representative population-based survey. Even though single men are very likely as clients of sex workers, no data available from IDHS to document sexual behavior with paid sexual partners among them. Regarding the protected sex with a paid partner among married men, this survey did not question specific type of paid sexual partners which can refer to any type of sex workers, e.g., FSWs, male sex workers, or transgender people. Nevertheless, within the context of Indonesia where the heterosexual intercourse is the common mode of HIV transmission, paid sexual partners mostly refer to FSWs.

2. Method

2.1 Data

This was a cross-sectional study using secondary data of standard 2012 Indonesia Demographic and Health Survey (IDHS) 2012, conducted by Statistics Indonesia in collaboration with National Family Planning Board, Ministry of Health, and MEASURE DHS ICF International, Calverton, Maryland USA. IDHS is nationally representative population-based survey which employed probability selection of multi-stage random sampling, stratified by geographical areas as the sampling technique [22]. Married men records of 2012 IDHS were employed in this study. For this analysis, from 9,306 currently married men, only 585 (weighted percentage = 5.4%) who reported for ever paying someone in exchange for having sexual intercourse by answering "yes" for a question "have you ever paid anyone in exchange for having sexual intercourse?". In addition, data were checked for the missing value, making an eligible sample size of 510 married men.

2.2 Variables

A dependent variable of this study was condom use with last paid sexual partner among married men. It was assessed by using a question "the last time you paid someone in exchange for having sexual intercourse, was a condom used?" (yes; no). Meanwhile, independent variables were based on previous findings and adjusted with data availability, resulting in socio-demographic characteristics: age (<40 years old; $\geq$ 40 years old), educational level (primary or less; secondary or higher),

occupational status (professional/ technical/ engineering; clerical; sales; agricultural/ self-employed; services; skilled manual; jobless and others), wealth index (poorest; poorer; middle; richer, richest), residential type (urban; rural), knowing any source of condoms by answering a question "do you know of a place where you can get condoms?" (yes; no), and spousal communication of HIV prevention by answering a question "have you ever talked about ways to prevent getting the virus that causes AIDS with your wife?" (yes; no). In addition, knowledge of HIV consisted of six items whereas four items were employed to measure the attitude of condom use with "yes" or "no" response for each item.

2.3 Statistical Analysis

Descriptive statistics was employed to present data distribution of a dependent variable and independent variables. Because this study used a nationally representative survey, weighted percentages were reported, following DHS's guideline [23]. In addition, for bivariate and multivariate analysis, binary logistic regression was used to determine the association. Results were presented as odds ratio (OR), 95% confidence interval (CI) and p-value.

3. Results

Table 1 shows characteristics of married men who have ever paid someone in exchange for having sexual intercourse. The age of married men was 39.41 years old, on average, and less than half (45.79%) aged more than average or $\geq$ 40 years old. In addition, less than half completed secondary or higher education (44.38%) and their occupation varied by sector, such as skilled manual (36.10%), agricultural/self-employed (20.87%), sales (12.15%), and other types of income source. Based on the ownership of household assets, the majority of married men fell into a poor-to-middle level of economic status. Interestingly, those who paid someone for having sex mostly lived in rural areas (61.08%). In addition, about 26.68% have ever talked to their wife about HIV prevention and most of them reported for knowing at least one place to access condoms (71.47%).

About one from four married men or 27.86% [95%CI=23.89-32.20] reported for having protected sexual encounter or using a condom with last paid sexual partner. Meanwhile, the prevalence for condomless sex was 72.12% [95%CI=67.79-76.10].

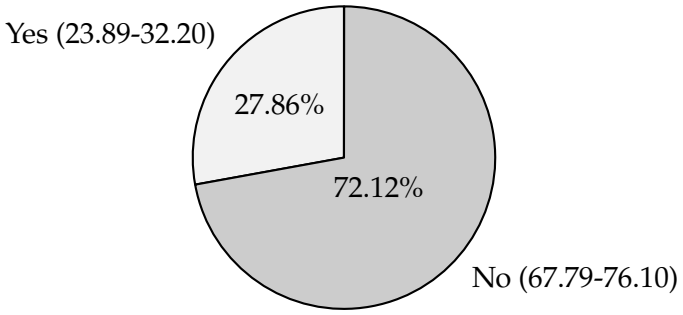

Figure 1. Condom use with last paid sexual partner among married men

Six items and four items were used to measure knowledge of HIV and attitude of condom use, respectively. Table 2 informs that only two out of six items could not be answered correctly by a half of married men, such as "people can get the HIV from mosquito bites" (38.60%) and "people can get the HIV by sharing food with a person who has AIDS" (34.25%), indicating they had a lack of knowledge on HIV transmission. Regarding the attitude of condom use, less than half gave "agree" response whether "condoms do not diminish sexual pleasure" (19.47%) and "a condom is very convenient to use" (25.05%). However, most of the married men agreed if "a condom cannot be reused" (91.22%) and "a condom protects against disease" (86.70%).

Table 3 presents factors associated with condom use with last paid partner among married men. Based on the results of the bivariate analysis, all socio-demographic characteristics, spousal communication on HIV prevention, and knowledge of condom sources were associated significantly with protected sex. Meanwhile, only two indicators of HIV knowledge were associated with condom use,

Table 1. Socio-demographic characteristics, spousal communication on HIV prevention, and knowing source of condoms among married men

Variables	n=510	weighted %
Age		
(mean ± SD)	39.41 ± 8.07	
(min;max)	19;54	
< 40 years old	277	54.21
≥ 40 years old	233	45.79
Educational level		
primary education or less	267	55.62
secondary or higher	243	44.38
Occupational status		
professional/technical/engineering	53	8.32
clerical	36	6.28
sales	63	12.15
agricultural/self-employed	113	20.87
services	45	9.70
skilled manual	163	36.10
jobless and others	32	6.58
Wealth index		
poorest	105	12.26
poorer	114	21.82
middle	103	24.67
richer	98	20.46
richest	90	20.78
Residential type		
rural	282	61.08
urban	228	38.92
Spousal communication on HIV prevention		
no	334	73.32
yes	176	26.68
Knowing the source of condom		
no	129	28.53
yes	381	71.47

such as "people can reduce their chance of getting the HIV virus by using a condom every time they have sex" and "people can get the HIV by sharing food with a person who has AIDS". For the attitude of condom use, those who agreed either "a condom cannot be reused" or "a condom protects against disease" were more likely to perform safe sex with last paid partner.

Multivariate analysis was carried out using enter model which means that all independent variables were included in the model. It aimed to find out significant factors after controlling all existing independent variables. Prior to multivariate analysis, multicollinearity testing was performed to find the correlation among all independent variables, resulting in none high correlated independent variables detected ($r<0.5$). The results found that some socio-demographic factors remained significant, such as age, occupation, and wealth index. Married men aged 40 years and more were 52% less likely to have a protected sex with last paid partner. In addition, the likelihood of condom use varied by type of occupation. Generally, married men who did not work in professional/technical/engineering sectors were less likely to use condoms compared to those in professional/technical/engineering sectors, ranging from 78% less likely among clerical workers to 60% less likely among sales workers. Based on economic status within household, poorer and richest married men were 2.28 times and 3.08 times more likely to have a history of protected sex with last paid partner, respectively.

Those who have ever talked with wife regarding HIV prevention were 1.84 more likely to use a condom with last paid sexual partner. In addition, only one item of each aspect of knowledge of HIV

Table 2. Knowledge of HIV and attitude of condom use among married men

Variables	Correct Answer (n)	weighted %
Knowledge of HIV		
1. People can reduce their chance of getting the HIV virus by using a condom every time they have sex.	390	78.16
2. People can reduce their chance of getting HIV by having just one uninfected sex partner who has no other sex partners.	416	84.10
3. People can get the HIV from mosquito bites.	202	38.60
4. People can get the HIV by sharing food with a person who has AIDS	179	34.25
5. It is possible for a healthy-looking person to have HIV.	393	81.30
6. People can get HIV by sharing unsterilized needle or syringe.	472	93.83
Attitude of condom use		
1. Condoms do not diminish sexual pleasure	105	19.47
2. A condom is very convenient to use	137	25.05
3. A condom cannot be reused	448	91.22
4. A condom protects against disease	437	86.70

and attitude of condom use was a significant determinant of condom use. Those who were knowledgeable about reducing HIV transmission by using a condom every time when having sex were 2.15 times more likely to perform protected sex. Similarly, married men who agreed that condoms protect against disease increased likelihood to use condoms with a paid partner by 3.05 times. This multivariate model was statistically significant at p<0.0001 with R2 of 14.39% which means that all independent variables in the model influenced the likelihood of condom use by 14.39%, and the remaining of 85.61% was determined by other variables beyond the model.

Table 3. Factors associated with condom use with last paid partner among married men

Variables	Condom Use			
	Bivariate		Multivariate	
	OR (95% CI)	p	aOR (95% CI)	p
Age				
< 40 years old	ref		ref	
≥ 40 years old	0.57(0.48-0.85)	0.005*	0.48(0.30-0.76)	0.002*
Educational level				
primary education or less	ref		ref	
secondary or higher	2.32(1.40-3.82)	0.001*	1.29(0.73-2.28)	0.378
Occupational status				
professional/technical/engineering	ref		ref	
clerical	0.25(0.10-0.66)	0.005*	0.22(0.08-0.61)	0.003*
sales	0.45(0.16-0.74)	0.006*	0.40(0.17-0.95)	0.037*
agricultural/self-employed	0.18(0.09-0.37)	<0.001*	0.32(0.13-0.75)	0.010*
services	0.60(0.27-1.33)	0.206	0.66(0.27-1.60)	0.352
skilled manual	0.31(0.16-0.59)	<0.001*	0.38(0.18-0.79)	0.010*
jobless and others	0.47(0.19-1.16)	0.101	0.51(0.19-1.42)	0.202
Wealth index				
poorest	ref		ref	
poorer	2.76(1.38-5.51)	0.004*	2.28(1.08-4.82)	0.031*
middle	2.67(1.31-5.41)	0.006*	1.93(0.89-4.21)	0.097
richer	2.60(1.27-5.31)	0.009*	1.66(0.73-3.75)	0.224

richest	4.97(2.47-10.01)	<0.001*	3.08(1.32-7.20)	0.009*
Residential type				
rural	ref		ref	
urban	0.60(0.40-0.89)	0.012*	0.88(0.55-1.44)	0.621
Spousal communication on HIV prevention				
no	ref		ref	
yes	1.94(1.30-2.88)	0.001*	1.84(1.17-2.90)	0.008*
Knowing source of condom				
no	ref		ref	
yes	2.32(1.40-3.85)	0.001*	1.30(0.72-2.36)	0.395
Knowledge of HIV				
Knowledge 1				
no	ref		ref	
yes	2.96(1.70-5.16)	<0.001*	2.15(1.14-4.08)	0.019*
Knowledge 2				
no	ref		ref	
yes	1.48(0.87-2.51)	0.149*	0.71(0.37-1.37)	0.313
Knowledge 3				
no	ref		ref	
yes	1.30(0.88-1.92)	0.188	0.98(0.62-1.55)	0.931
Knowledge 4				
no	ref		ref	
yes	1.65(1.11-2.45)	0.013*	1.33(0.84-2.11)	0.222
Knowledge 5				
no	ref		ref	
yes	1.33(0.71-1.80)	0.597	1.38(0.78-2.46)	0.272
Knowledge 6				
no	ref		ref	
yes	1.83(0.79-4.25)	0.161	0.44(0.16-1.27)	0.131
Attitudes of condom use				
Attitude 1				
no	ref		ref	
yes	1.01(0.63-1.62)	0.972	0.91(0.50-1.65)	0.754
Attitude 2				
no	ref		ref	
yes	1.27(0.83-1.95)	0.264	0.96(0.56-1.66)	0.883
Attitude 3				
no	ref		ref	
yes	2.97(1.38-6.41)	0.005*	1.19(0.48-2.96)	0.697
Attitude 4				
no	ref		ref	
yes	5.21(2.21-12.30)	<0.001*	3.05(1.14-8.16)	0.026*
n			**510**	
LR Chi-square (df)(p-value)			**87.63(25)(<0.0001)**	
R-square			**0.1439**	

*significant at $\alpha = 0.05$

4. Discussion

From 2012 IDHS, the percentage of married men who reported for paying someone in exchange for having sex was 5.4%. By applying this percentage to the total male population in Indonesia, the estimated numbers of males who become clients of sex workers reach 4.3 million which approach the

lower limit of the estimated clients reported by MoH Indonesia [6]. Meanwhile, this study found that the prevalence of condom use with a paid sexual partner at last time among currently married men was very low, about 27.86%. It indicates that married men potentially contribute to an increased HIV transmission among wives and pregnant women due to their unprotected sex with a paid partner [13, 14]. Not surprisingly then, previous studies from other settings documented that husband with extramarital sex was a predictor of HIV-positive among pregnant women [24, 25]. Therefore, understanding factors associated with their protected sex with paid partners among married men is substantial to produce an appropriate intervention to avert more HIV infections.

Some socio-demographic characteristics were associated with protected sex with last paid sexual partner, such as age, occupation, and economic status. Married men aged 40 years and more tend to report for condomless sex with the most current paid partner. This finding is similar to another previous study in Sichuan Province, China which found that male clients more than 38 years old were 69% less likely to use condom consistently with FSWs [26] and study in India showed that those aged over 30 years old were 4.20 times more likely to be inconsistent user [19]. There are some possibilities of why old married men are less likely to use condoms with paid sexual partners, such as less knowledgeable of HIV transmission, prevention, or a lack of information on sources to access condoms [27, 28]. Therefore, it seems logical to assume that different characteristics (e.g., age) should be taken into account in designing public health intervention by providing sufficient and adequate information tailored to old male clients.

In addition, those who worked in professional/ technical/ engineering sectors were found with higher self-reported condom use with a paid sexual partner compared to other occupations. A study among male clients of FSWs in Singapore also find a supportive finding which the prevalence of condom use statistically varied by occupation [20]. In addition, Mustikawati et al confirmed that several types of Indonesian men's occupation are considered as high-risk groups of HIV infection with low condom use with FSWs, of which, truck drivers were the most at risk [29]. Different types of occupation might be related to different level of exposure to HIV information which influences their knowledge and behavior of protected sex [30]. In addition, occupation is also in line with income level which, in turn, influences the ability to access condoms as another finding in this study that those with higher economic status were more likely to report protected sex.

The variable of spousal communication on HIV prevention remained significant from bivariate to multivariate analysis in predicting condom use. It might be related to married men who have ever talked with their wife about HIV prevention were exposed to the information on condom use as one of the effective prevention methods. It implies that information related to HIV prevention received by married men is potentially translated into preventive action. Meanwhile, married men can also obtain information on the benefits of condom use for HIV prevention through many channels which significantly affects to their knowledge and behavior [31]. A study in India pointed out that message on condom use improved the rates of protected sex among male clients of FSWs [19].

Some indicators of knowledge related HIV transmission were poorly known, such as whether people can get the HIV from mosquito bites and by sharing food with a person who has AIDS. Obviously, it denotes the need for HIV transmission-related information among married men. Furthermore, those who knew using condoms can reduce HIV infection were more likely to use condoms at last sex with a paid sexual partner, resulted from bivariate and multivariate analysis. It is consistent with other previous study findings that condom use was associated with high level of HIV&AIDS knowledge among male clients [20, 28]. Being knowledgeable of HIV prevention by using condom leads to an informed decision of protected sex among married men.

In this study, only less than a half of married men agreed that condoms do not diminish sexual pleasure and a condom is very convenient to use, indicating most of them had a negative attitude of using condoms. Yang et al found that personal pleasure reduction decreased the likelihood of using condom among male clients in China [32]. By contrast, this study found that it was not a significant determinant. It might be related to another perception such as condom can protect from being infected with particular diseases was a more influential predictor as demonstrated by this study. Another published study also obtained the same finding where the perceived efficacy of condom use for HIV prevention was associated with safe sex among male clients [28, 33, 34].

From those findings, it is suggested public health intervention targetting married men who paid someone for having sex. It is important to note that they are difficult to identify compared to other KAPs who tend to have networks and easier to be reached. To respond to these difficulties, the intervention can be integrated with other existing programme on KAPs, such as FSWs as the potential sexual partner of married men. Condom use as HIV prevention method should be emphasized as the important information which can be delivered by NGOs who work in this issue through face-to-face with male clients or using other media (e.g., displayed poster; brochure) at the places commonly visited by married men for having sex, such as brothels or venues. High level of exposures to condom information is recommended to increase the protected sex [31]. Those approaches should also consider different characteristics of male clients that were significant factors in this study such as age and occupation. It is important to note that this effort should be supported by the provision of uninterrupted condoms at those places and an improved of negotiation skills among FSWs as well, to prevent condomless sex by FSWs and male clients [35, 36]. In addition, an advocacy for developing internal regulation to the owners or pimps of brothels and venues to enforce both FSWs and male clients to use condoms is a substantial approach [37].

This present study has several limitations. The primary limitation of this study is the nature of secondary data which restricted other potential independent variables of protected sex that were found as strong determinants from previous literature, such as condom use at sexual debut [26], alcohol consumption when visiting sex workers [5], peer's use of condom [5, 28], HIV-risk perception [26], perception of severity of HIV [34], self-efficacy [20, 32, 33], have been tested for HIV or STIs [14, 19], social norms of condom use [20], etc. The survey of which this study based on also did not specifically question the type of partner who has been paid for having sex by married men. In addition, self-reported of measuring condom use prone to be biased as a result of the social desirability. Therefore, future studies on this topic should consider limitations in this study.

5. Conclusion

Prevalence of condom use at last sex with a paid sexual partner among married men was very low. Factors associated with the protected sex based on multivariate analysis were age, occupation, wealth index, spousal communication on HIV prevention, knowledge on reducing the chance of getting the HIV by using condoms, and attitude toward condom can protect against disease. Therefore, intervention should be addressed to married men who are potential as male clients at the worksite of FSWs. Interventional approaches include providing HIV prevention-related information, providing condoms, and enforcing condom use regulation at the workplaces of sex workers.

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Conflict of Interest

There is no conflict of interest.

REFERENCES

1. UNAIDS. Global report: UNAIDS report on the global AIDS epidemic. Geneva; 2010.

2. United Nations Programme on HIV and AIDS (UNAIDS). Country factsheet: Indonesia [Internet]. 2017. Available from: http://www.unaids.org/en/regionscountries/countries/indonesia
3. Ministry of Health (MoH) Indonesia. Survei terpadu biologi dan perilaku tahun 2015 (Integrated biological and behavioural survey 2015). Jakarta; 2015.
4. Ministry of Health (MoH) Indonesia. Statistik kasus HIV/AIDS di Indonesia (The statistics of HIV/AIDS cases in Indonesia). Jakarta; 2017.
5. Rastogi S, Charles B, Sam AE. Prevalence and predictors of self-reported consistent condom usage among male clients of female sex workers in Tamil Nadu, India. J Sex Transm Dis. 2014;2014:1-7.
6. Ministry of Health (MoH) Indonesia. Kajian epidemiologi HIV Indonesia 2016 (Epidemiological review of HIV in Indonesia 2016). Jakarta; 2017.
7. Morris M, Podhisita C, Wawer MJ, Handcock MS. Bridge populations in the spread of HIV/AIDS in Thailand. AIDS. 1996;10(11).
8. Lowndes CM, Alary M, Gnintoungbe CA, Bedard E, Mukenge L, Geraldo N, et al. Management of sexually transmitted diseases and HIV prevention in men at high risk: targeting clients and non-paying sexual partners of female sex workers in Benin. AIDS. 2000;14(16):2523-34.
9. Ministry of Health (MoH) Indonesia. Mathematic model of HIV epidemic in Indonesia, 2008-2014. Jakarta; 2008.
10. Ministry of Health (MoH) Indonesia. HIV-AIDS progress report 2016. Jakarta; 2017.
11. Ministry of Health (MoH) Indonesia. 2012 size estimation of key affected populations (KAPs). Jakarta; 2014.
12. Riono P, Jazant S. The current situation of the HIV/AIDS epidemic in Indonesia. AIDS Educ Prev. 2004;16(supplement_a):78-90.
13. Gomes do Espirito Santo ME, Etheredge GD. Male clients of brothel prostitutes as a bridge for HIV infection between high risk and low risk groups of women in Senegal. Sex Transm Infect. BMJ Publishing Group; 2005;(4):342-4.
14. Hor LB, Detels R, Heng S, Mun P. The role of sex worker clients in transmission of HIV in Cambodia. Int J STD AIDS. 2005;16(2):170-4.
15. Lowndes CM, Alary M, Meda H, GnintoungbÃĺ CAB, Mukenge-Tshibaka L, Adjovi C, et al. Role of core and bridging groups in the transmission dynamics of HIV and STIs in Cotonou, Benin, West Africa. Sex Transm Infect. 2002;78 Suppl 1:i69-77.
16. Fauk NK, Kustanti CY, Liana DS, Indriyawati N, Crutzen R, Mwanri L. Perceptions of determinants of condom use behaviors among male clients of female sex workers in Indonesia: a qualitative inquiry. Am J Mens Health. 2018;12(4):666-75.
17. Olowookere SA, Adeleke NA, Fatiregun AA, Abioye-Kuteyi EA. Pattern of condom use among clients at a Nigerian HIV Counseling and Testing Centre. BMC Res Notes. 2013;6(1):289.
18. Goldenberg SM, Cruz MG, Strathdee SA, Nguyen L, Semple SJ, Patterson TL. Correlates of Unprotected Sex With Female Sex Workers Among Male Clients in Tijuana, Mexico. Sex Transm Dis. 2010;37(5):1.
19. Subramanian T, Gupte MD, Paranjape RS, Brahmam GN, Ramakrishnan L, Adhikary R, et al. HIV, sexually transmitted infections and sexual behaviour of male clients of female sex workers in Andhra Pradesh, Tamil Nadu and Maharashtra, India: results of a cross-sectional survey. AIDS. 2008;22(Suppl 5):S69-79.
20. Wee S, Barrett ME, Lian WM, Jayabaskar T, Chan KWR. Determinants of inconsistent condom use with female sex workers among men attending the STD clinic in Singapore. Sex Transm Infect. 2004;80(4):310-4.
21. Singh SK, Mondal S, Sharma N. Sexual behaviour and practices: A study of male clients of female sex workers in Mumbai. J Fam Welf. 2009;55(2):39-53.
22. Statistics Indonesia (Badan Pusat Statistik-BPS), National Population and Family Planning Board (BKKBN), Kementerian Kesehatan (Kemenkes-MoH), ICF International. Indonesia demographic and health survey 2012. Jakarta; 2013.
23. Rutstein S, Rojas G. Guide to DHS statistics. Calverton, Maryland: MEASURE DHS ICF International; 2006.
24. Mohammed Azim Abusabah H, Mohammed Azim Abusabah S, Musa TH, Musa HH. Sero-prevalence and risk factors associated with HIV infection in pregnant women. J Hum Virol Retrovirology. 2017;5(7):00186.
25. Etukumana EA, Thacher TD. HIV risk factors among pregnant women in a rural Nigerian hospital. West Indian Med J. 2010.
26. Yang C, Latkin C, Luan R, Nelson K. Condom use with female sex workers among male clients in Sichuan Province, China: the role of interpersonal and venue-level factors. J Urban Heal. 2010;87(2):292-303.
27. Belza MJ, de la Fuente L, Suarez M, Vallejo F, Garcia M, Lopez M, et al. Men who pay for sex in Spain and condom use: prevalence and correlates in a representative sample of the general population. Sex Transm Infect. 2008;84(3):207-11.
28. Ford K, Wirawan DN, Muliawan P. Social influence, AIDS/STD knowledge, and condom use among male clients of female sex workers in Bali. AIDS Educ Prev. 2002;14(6):496-504.
29. Mustikawati DE, Morineau G, Nurhayati, Irmaningrum Y, Riono P, Priohutomo S, et al. Sexual risk taking, sexually transmitted infections and HIV prevalence among four high-risk occupational groups of Indonesian men. Sex Transm Infect. 2009;85(5):391-6.

30. Shafiur Rahman M, Nuruzzaman Khan M, Nazrul Islam Mondal M, Shamsher Alam M, Mohiuddin Ahmed K, Rafiqul Islam M. Knowledge level about HIV / AIDS among the villagers of Comilla District, Bangladesh. World J AIDS. 2014;4:438-45.
31. Lipovsek V, Mukherjee A, Navin D, Marjara P, Sharma A, Roy KP. Increases in self-reported consistent condom use among male clients of female sex workers following exposure to an integrated behaviour change programme in four states in southern India. Sex Transm Infect. 2010;86(Suppl 1):i25-32.
32. Yang Y, Yang C, Latkin CA, Luan R, Nelson KE. Condom use during commercial sex among male clients of female sex workers in Sichuan China: a social cognitive theory analysis. AIDS Behav. 2016;20(10):2309-17.
33. Li J, Lau JTF, Ma YL, Lau MMC. Trend and factors associated with condom use among male clients of female sex workers in Hong Kong: findings of 13 serial behavioural surveillance surveys. AIDS Behav. 2018;22(7):2235-47.
34. Regan R, Morisky DE. Perceptions about HIV and condoms and consistent condom use among male clients of commercial sex workers in the Philippines. Heal Educ Behav. 2013;40(2):216-22.
35. Megaputri PS, Sawitri AAS, Wirawan DN. Negotiation and determinants of condom use among female sex workers in Denpasar. Public Heal Prev Med Arch. 2016;4(1):3.
36. Basuki E, Wolffers I, DevillÃĺ W, Erlaini N, Luhpuri D, Hargono R, et al. Reasons for not using condoms among female sex workers in Indonesia. AIDS Educ Prev. 2002;14(2):102-16.
37. Putra IGNE, Phuengsamran D, Jampaklay A, Thammawijaya P, Januraga PP. Sociodemographic characteristics, work venue, knowledge, and condom use with clients among indirect female sex workers in Denpasar, Bali, Indonesia. Proc Int Conf Appl Sci Heal. 2018;(3):90-6.

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