

# STD Knowledge and Treatment Seeking Behavior and Condom Use Among Selected High Risk Behavior Groups of Population in North Jakarta, Surabaya, and Manado<sup>1</sup>

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**Abstract.** *The objective of this paper is to assess the extent of STD knowledge and treatment seeking behavior and condom use among selected high risk groups of population, notably, sailors and seaport laborers, truckers, and female commercial sex workers (CSW), in three seaport cities in 1996: North Jakarta, Surabaya, and Manado. The survey used a cross-sectional survey design with a structured questionnaire to collect, through interview, self-reported behavioral data related to STD/HIV. A two-stage cluster sampling was used to obtain sample of 200 to 400 respondents for each target group for each city. Most of respondents aged between 20 and 40 years, had low educational level. Two-third of male respondents were married, and the majority of female CSW respondents were in divorced status. Respondents' STD knowledge was limited to syphilis, gonorrhoea, and AIDS. The knowledge seemed to refer more to the "word" rather than to the disease, mixing up the word of syphilis or gonorrhoea with other STDs. "Pain and hot when urinating" was perceived as a symptom related to STD. The practice of STD self-treatment was common. More than half of those with STD related symptom sought medical treatment, particularly from private medical practice. Substantial proportion of those with STD related symptom did not seek any medical treatment. About half of male respondents ever visited female CSW. The risk of ever had STD was eight times higher for those who ever visited female CSW than those who never visited female CSW. Among male respondents, use of condom at last sexual contact with female CSW was very low, below ten percent. Among female CSW respondents, use of condom at their last sexual contact varied between cities and between localization and non-localization from 15 to 50 percent, but consistent condom use was much lower, from one to 25 percent.*

**Keywords:** Several behavior; knowledge of diseases; contraceptive devices; condom; sexually transmitted diseases; medical care; prostitution; high risk groups; Indonesia 1996.

## 1. Introduction

STDs (sexually transmitted diseases) facilitate the spread of HIV transmissions (Holmes et al. 1996: 8). STDs, particularly the ulcerative types, biologically enhance the vulnerability of the infected individuals to HIV infection. Moreover, due to their sexually high risk behavior, persons infected with STD are also prone to acquire HIV. For these reasons, in the context of HIV/AIDS prevention and control program, it is important not only to prevent but also to medically treat the STDs. Among various associated factors, STD knowledge and treatment seeking behavior and condom use, particularly among sexually high risk behavior groups of population, are noted to be the important factors determining the successfulness of STD prevention and treatment.

Against the above background, this paper is prepared to assess the extent of STD knowledge and treatment seeking behavior and condom use among selected high risk groups of population, notably, sailors and seaport laborers, truckers, and female commercial sex workers. Such assessment would provide useful information for the basis of developing public campaign against the spread of STDs including HIV.

## 2. Methodology

Data used in this paper are generated from the baseline STD/HIV Risk Behavioral Surveillance Survey (BSS) conducted among selected groups of population in 1996 in three cities: North Jakarta, Surabaya, and Manado<sup>2</sup>. The survey was sponsored by the HIV/AIDS Prevention Project (HAPP), which is a collaborative project involving the Ministry of Health, the Family Health International, the USAID, and the Non-Governmental Organizations.

Sample size was determined on the basis of following parameters: (a) 10 percent in the proportion of persons with the specified behavior being examined in the population; (b) 15 percent of behavior change to be detected; (c) 95 percent in the confidence level of estimate; (d) 20 percent of statistical power; and (e) the approximate design effect of 1.5 to two times. With such parameters, a sample size of 200 to 400 respondents was pre-determined for each target group for each city.

A two-stage cluster sampling was used in obtaining the sample. In field-set up, mapping and listing of sentinel sites (clusters) were conducted to

provide a sampling frame of sentinel sites with their approximate number of eligible individuals<sup>3</sup>. The first stage of sampling was to randomly select a number of sentinel sites using PPS (probability proportionate to size)<sup>4</sup>, and the second stage was to randomly select individuals from each of selected sentinel sites. For this second stage of sampling, a sampling frame of individuals was prepared on site at the time of the survey. To accommodate behavioral variation between and within the sentinel sites, it was decided to select 10 to 20 sentinel sites and 10 to 40 individuals per sentinel site to yield the required sample size of 200 to 400 individuals.

The survey used a cross-sectional survey design with a structured questionnaire to collect self-reported sexual behavioral data related to STD/HIV including STD knowledge and treatment seeking behavior and condom use. Data were collected by interviewers specifically recruited and trained for the survey. In general, the interviews took several phases: introduction, rapport building and "ice breaking", core questions, and closure.

As sexual behavior cannot be directly observed, validity and reliability tests on selected sexual behavior questions were conducted by comparing results of the main survey with the results of the other two smaller surveys (the pretest and the validation survey) previously conducted at different times (one week interval) by different interviewers over the same population<sup>4</sup>. The reliability test demonstrated consistent results between the three surveys: the main, the pretest, and the validation survey. Even on the basis of small sample, the individual-matching comparison demonstrated a good agreement of responses (above 75 percent) between the same respondents interviewed at two different time (about one week) by different interviewers. Moreover, even for the non-matching comparisons, the level of agreement increased with the increasing sample size (Utomo 1997).

### **3. Results**

#### **3.1 Respondents' background characteristics**

Respondents varied in their age, education, and marital status. The majority of respondents were in their reproductive ages with some of them were above 40 years. The proportion of respondents having high education, namely, completed senior high school or above, was relatively low (see Table 1). The majority of male respondents were married, while the majority of female CSWs were divorced. In Manado, however, many female CSWs were in not-married status.

**Table 1**  
**PERCENTAGE DISTRIBUTION OF RESPONDENTS BY DEMOGRAPHIC**  
**CHARACTERISTICS, 1996**

| Target group <sup>a</sup> | Jakarta |      |      | Surabaya |      |      |      | Manado |      |
|---------------------------|---------|------|------|----------|------|------|------|--------|------|
|                           | S/SL    | LSW  | NLSW | S/SL     | LSW  | NLSW | TD/A | S/SL   | NLSW |
| N <sup>b</sup>            | 399     | 200  | 199  | 200      | 201  | 200  | 200  | 400    | 200  |
| <b>Age group (year)</b>   |         |      |      |          |      |      |      |        |      |
| <20                       | 7.0     | 11.0 | 13.1 | 3.0      | 16.4 | 1.0  | 4.5  | 4.8    | 17.0 |
| 20-29                     | 49.6    | 72.0 | 45.7 | 45.0     | 60.2 | 44.0 | 41.5 | 37.5   | 52.5 |
| 30+                       | 43.4    | 17.0 | 41.2 | 52.0     | 23.4 | 55.0 | 54.0 | 57.7   | 30.5 |
| <b>Education</b>          |         |      |      |          |      |      |      |        |      |
| No schooling              | 2.5     | 15.5 | 4.0  | 0.0      | 19.9 | 11.0 | 0.5  | 0.0    | 0.5  |
| Not finished primary      | 17.8    | 33.0 | 17.6 | 14.5     | 23.4 | 35.0 | 9.0  | 16.8   | 18.0 |
| Finished primary          | 29.2    | 36.5 | 34.1 | 22.5     | 37.3 | 26.0 | 32.0 | 24.7   | 21.5 |
| Finished junior high      | 22.6    | 13.0 | 30.2 | 18.0     | 17.9 | 21.5 | 47.0 | 25.5   | 40.0 |
| Finished senior high      | 22.6    | 2.0  | 13.1 | 39.0     | 1.5  | 6.0  | 11.5 | 29.7   | 20.0 |
| Finished tertiary         | 5.3     | 0.0  | 1.0  | 6.0      | 0.0  | 0.5  | 0.0  | 3.3    | 0.0  |
| <b>Marital status</b>     |         |      |      |          |      |      |      |        |      |
| Not married               | 35.8    | 9.0  | 15.6 | 39.0     | 26.9 | 16.5 | 28.5 | 24.5   | 45.0 |
| Married                   | 63.2    | 1.0  | 16.6 | 60.5     | 2.5  | 5.5  | 71.0 | 73.7   | 7.0  |
| Divorced                  | 1.0     | 77.5 | 58.3 | 0.5      | 59.6 | 66.0 | 0.0  | 1.5    | 32.5 |
| Widowed                   | 0.0     | 9.0  | 6.5  | 0.0      | 4.5  | 4.5  | 0.5  | 0.3    | 4.0  |
| Living apart              | 0.0     | 3.5  | 3.0  | 0.0      | 6.5  | 7.0  | 0.0  | 0.0    | 11.0 |
| No answer                 | 0.0     | 0.0  | 0.0  | 0.0      | 0.0  | 0.5  | 0.0  | 0.0    | 0.5  |

Notes : a : S/SL = Sailor/seaport laborers; LSW = Female commercial sex workers in localization;  
 NLSW = Female commercial sex workers in non-localization; TD/A = Truck drivers/driver assistants.

b : Number of all respondents.

### 3.2 Knowledge of STDs

Respondents were asked whether or not they know some types of STD including gonorrhoea, chlamydia, syphilis, herpes, lymphogranuloma venereum, scabies, condyloma, AIDS, or hepatitis in order to provide information regarding the extent of their knowledge and awareness concerning the diseases. The results showed three types of STDs, notably, syphilis, gonorrhoea, and AIDS, as the known popular STDs with syphilis being the most popular as it was mentioned by almost 70 percent of respondents (see Table 2). This finding may not be surprising given that syphilis has been one of the most common old STD disease.

It seems that the proportions of respondents who reported knowing syphilis or AIDS were higher in Manado than in the other two cities. In the three

cities, most respondents were familiar with syphilis and GO (gonorrhoea). It is important to note, however, that those who reported knowing syphilis may refer to the "word" rather than their knowledge of the disease<sup>6</sup>. Many respondents perceive syphilis, or even other STDs, not as a threat because according to them there are now many types of medicine available for self-treatment<sup>7</sup>. Substantial proportions of respondents across the target groups and cities, 10 to 65 percent, mentioned "AIDS" as an STD.

**Table 2**  
**PERCENTAGE OF RESPONDENTS**  
**WHO KNOW ABOUT STDs, 1996**

| Target group <sup>a</sup> | Jakarta |      |      | Surabaya |      |      |      | Manado |      |
|---------------------------|---------|------|------|----------|------|------|------|--------|------|
|                           | S/SL    | LSW  | NLSW | S/SL     | LSW  | NLSW | TD/A | S/SL   | NLSW |
| N <sup>b</sup>            | 399     | 200  | 199  | 200      | 201  | 200  | 200  | 400    | 200  |
| Know STD type (%)         |         |      |      |          |      |      |      |        |      |
| gonorrhoea                | 39.6    | 25.5 | 23.1 | 26.5     | 16.4 | 47.0 | 16.0 | 16.5   | 23.0 |
| chlamydia                 | 2.3     | 15.5 | 21.1 | 1.0      | 18.9 | 30.0 | 1.0  | 1.5    | 35.0 |
| syphilis                  | 80.2    | 52.0 | 58.8 | 80.5     | 48.3 | 82.5 | 79.5 | 92.3   | 97.0 |
| herpes                    | 1.0     | 0.0  | 0.0  | 1.0      | 1.0  | 7.5  | 1.0  | 0.5    | 1.0  |
| condyloma                 | 1.3     | 3.0  | 1.0  | 1.5      | 7.0  | 10.0 | 0.0  | 0.8    | 1.0  |
| AIDS                      | 36.8    | 19.0 | 28.1 | 17.0     | 37.8 | 8.5  | 16.0 | 25.3   | 64.0 |
| other                     | 2.3     | 2.0  | 1.0  | 0.5      | 1.0  | 0.0  | 0.5  | 0.5    | 0.0  |

Notes : a : S/SL = Sailor/seaport laborers; LSW = Female commercial sex workers in localization; NLSW = Female commercial sex workers in non-localization; TD/A = Truck drivers/driver assistants.

b : Number of all respondents.

### 3.3 Perceived experience with STDs

After being asked about their STD knowledge, respondents were questioned whether they ever had the type of STD they previously mentioned. Respondents were also asked about their previous experience with STD related symptoms. In this case, the interviewer read the predetermined listed symptoms one by one to the respondent.

Proportions of those who reported ever had STD varied across target groups and cities from 10 to 40 percent (see Table 3). The proportions were found to be much higher among male high risk group respondents than among female commercial sex workers. It is unclear whether such figures reflect the true situation as they were the product of reported perceived illnesses. Of those who reported ever had STD, the majority mentioned syphilis or gonorrhoea as the type of STD they suffered<sup>8</sup>. These reported type of STD experienced by the

respondent, however, should be interpreted with caution as STD diagnosis generally requires medical and laboratory examination. The popularity of certain types of STD, notably syphilis and gonorrhoea, may influence the respondents' perception on which type of STD they may report. It remains difficult, therefore, from the survey results to draw firm conclusion regarding the precise pattern of STDs in the target population.

**Table 3**  
**PERCENTAGE OF RESPONDENTS**  
**WHO REPORTED EVER HAD STDs, 1996**

| Target group <sup>a</sup>  | Jakarta |      |      | Surabaya |      |      |      | Manado |      |
|----------------------------|---------|------|------|----------|------|------|------|--------|------|
|                            | S/SL    | LSW  | NLSW | S/SL     | LSW  | NLSW | TD/A | S/SL   | NLSW |
| N <sup>b</sup>             | 399     | 200  | 199  | 200      | 201  | 200  | 200  | 400    | 200  |
| %who reported ever had STD | 20.6    | 10.5 | 10.1 | 40.0     | 9.5  | 19.5 | 40.0 | 29.7   | 19.5 |
| N <sup>c</sup>             | 82      | 21   | 20   | 80       | 19   | 39   | 80   | 119    | 39   |
| Reported type of STD (%)   |         |      |      |          |      |      |      |        |      |
| gonorrhoea                 | 35.4    | 4.8  | 5.0  | 8.8      | 5.3  | 2.6  | 12.5 | 10.9   | 0.0  |
| chlamydia                  | 0.0     | 47.6 | 65.0 | 0.0      | 31.6 | 53.8 | 0.0  | 0.0    | 41.0 |
| syphilis                   | 50.0    | 33.3 | 25.0 | 52.5     | 26.3 | 17.9 | 50.0 | 55.5   | 5.1  |
| herpes                     | 1.2     | 0.0  | 0.0  | 0.0      | 5.3  | 0.0  | 1.3  | 0.0    | 0.0  |
| itching around the genital | 2.4     | 4.8  | 5.0  | 31.3     | 10.5 | 23.1 | 32.5 | 31.1   | 43.6 |
| condyloma                  | 0.0     | 0.0  | 0.0  | 0.0      | 0.0  | 0.0  | 0.0  | 0.0    | 0.0  |
| AIDS                       | 0.0     | 0.0  | 0.0  | 0.0      | 0.0  | 0.0  | 0.0  | 0.0    | 0.0  |

Notes : a : S/SL = Sailor/seaport laborers; LSW = Female commercial sex workers in localization; NLSW = Female commercial sex workers in non-localization; TD/A = Truck drivers/driver assistants.

b : Number of all respondents.

c : Number of respondents who ever had STD symptoms.

### 3.3.1 Reported ever had STD by age

It is interesting to compare between the target groups in regard to the percentage of respondents who reported ever had STD by age. Among female CSWs, except in Manado, the younger their ages the higher the proportions of those who reported ever had STD. Hence, younger CSWs may engage more in sexual exchange than their older counterpart. Conversely, among adult male respondents, except in Manado, the older their ages the higher the proportions of those who reported ever had STD (see Table 4), suggesting the hypothesis that adult males are regular but infrequent clients of female CSWs.

Table 4  
 PERCENTAGE OF RESPONDENTS WHO EVER HAD STD BY AGE,  
 EDUCATION AND MARITAL STATUS, 1996

| Target group <sup>a</sup>    | Jakarta   |           | Surabaya  |           | Mando     |           |
|------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|
|                              | S/SL      | LSW       | S/SL      | LSW       | S/SL      | NLSW      |
| <b>Age</b>                   |           |           |           |           |           |           |
| <20                          | 8.7 (23)  | 50.0 (16) | 16.7 (6)  | 25.0 (20) | 50.0 (2)  | 20.0 (5)  |
| 20-29                        | 21.7(180) | 11.6 (95) | 41.6 (77) | 13.6 (81) | 21.7 (83) | 52.8 (72) |
| 30+                          | 26.1(157) | 8.7 (23)  | 52.8 (89) | 8.8 (34)  | 21.3 (94) | 43.2 (95) |
| <b>Education<sup>b</sup></b> |           |           |           |           |           |           |
| Low                          | 22.2(167) | 16.7(108) | 47.2 (53) | 11.9(101) | 22.6(124) | 43.9 (66) |
| High                         | 23.3(193) | 11.5 (26) | 46.2(119) | 20.6 (34) | 20.0 (55) | 48.1(106) |
| <b>Marital status</b>        |           |           |           |           |           |           |
| Never                        | 17.5(126) | 3.3 (15)  | 38.6 (70) | 24.3 (37) | 9.7 (31)  | 51.2 (43) |
| Ever                         | 25.6(234) | 13.4(119) | 52.0(102) | 10.2 (98) | 24.3(148) | 45.0(129) |

Notes : The number within the parentheses refers to total number of respondents at the particular demographic characteristic and target group.

a: S/SL = Sailor/seaport laborers; LSW = Female commercial sex workers in localization; NLSW = Female commercial sex workers in non-localization; TD/A = Truck drivers/driver assistants.

b: Low = No schooling to finished primary education; High = Finished junior high school to tertiary education.

### **3.3.2 Reported ever had STD by education**

While people with high education are assumed to have a greater exposure to information on STD and means of its prevention and control than their counterpart, the survey data indicate inconsistent educational pattern of ever had STD across the target groups. Thus, the data suggest, at least at the survey settings, that education may have unclear bearing on level of reported ever had STD.

## **3.4 Recent experiences with STD related symptoms**

### **3.4.1 Reported STD related symptoms within the past year**

The BSS gathered information regarding the respondents' previous experience with STD related symptoms, and then specified whether the experience happened within the past year. The predetermined symptoms listed in the questionnaire were read one by one by the interviewer without mentioning that the symptom is STD related, and then asked the respondent to respond either "yes" or "no". The information resulted may indirectly indicate the extent of recent STD related problem in the target population.

There is high variation in the proportion of respondents who reported ever had STD related symptoms but a similar pattern in type of symptoms between the target groups. Similar patterns in type of symptom were also observed when the symptoms were delineated within the past year (see Table 5). "Pain and hot when urinating", "fungi and itching around the genital", and "white purulent vaginal discharge" were the common reported symptoms, suggesting that urethral infections and itching around the genital are common. Further examination, however, is needed to see whether or not the reported symptoms are STD related.



**Table 5**  
**PERCENTAGE OF RESPONDENTS WHO REPORTED**  
**EVER HAD STD SYMPTOMS AND THEIR HEALTH SEEKING**  
**BEHAVIOR IN THE PAST YEAR, 1996**

| Target group <sup>a</sup>                    | Jakarta |      |      | Surabaya |      |      |      | Manado |      |
|----------------------------------------------|---------|------|------|----------|------|------|------|--------|------|
|                                              | S/SL    | LSW  | NLSW | S/SL     | LSW  | NLSW | TD/A | S/SL   | NLSW |
| N <sup>b</sup>                               | 399     | 200  | 199  | 200      | 201  | 200  | 200  | 400    | 200  |
| Ever had STD symptom (%)                     |         |      |      |          |      |      |      |        |      |
| pain and hot when urinating                  | 15.8    | 19.5 | 12.6 | 7.5      | 31.3 | 17.5 | 10.0 | 13.5   | 9.0  |
| painless or non-itching ulcer around genital | 2.8     | 3.5  | 6.5  | 3.5      | 29.4 | 1.0  | 0.5  | 2.3    | 0.5  |
| fungi and itching around genital             | 7.5     | 4.0  | 7.5  | 12.0     | 2.0  | 13.0 | 13.0 | 11.0   | 9.0  |
| white purulent discharge                     | 0.0     | 15.0 | 9.5  | 0.0      | 11.4 | 31.5 | 0.0  | 0.0    | 9.0  |
| N <sup>c</sup>                               | 173     | 75   | 65   | 113      | 108  | 113  | 108  | 178    | 59   |
| Last symptom in the past year                |         |      |      |          |      |      |      |        |      |
| pain and hot when urinating                  | 50.9    | 45.3 | 26.2 | 41.6     | 30.6 | 17.7 | 50.0 | 47.8   | 23.7 |
| painless or non-itching ulcer around genital | 5.2     | 8.0  | 21.5 | 4.4      | 42.6 | 0.9  | 0.9  | 2.8    | 0.0  |
| fungi and itching around genital             | 20.8    | 6.7  | 18.5 | 36.3     | 0.9  | 16.8 | 38.0 | 20.8   | 30.5 |
| white purulent discharge                     | 0.0     | 32.0 | 24.6 | 0.0      | 13.9 | 61.1 | 0.0  | 0.0    | 28.8 |
| Having self treatment (%)                    | 73.4    | 74.7 | 50.8 | 72.6     | 63.9 | 91.2 | 61.1 | 84.8   | 89.8 |
| Seeking medical treatment (%)                | 52.0    | 76.0 | 80.0 | 51.3     | 75.9 | 61.1 | 54.9 | 53.9   | 78.0 |
| Place of treatment for last symptom          |         |      |      |          |      |      |      |        |      |
| health center                                | 8.1     | 5.3  | 1.5  | 7.1      | 13.9 | 7.1  | 0.0  | 7.9    | 22.0 |
| family planning clinics                      | 1.7     | 12.0 | 3.1  | 1.8      | 0.0  | 0.0  | 0.0  | 5.1    | 1.7  |
| hospital                                     | 12.7    | 4.0  | 7.7  | 4.4      | 6.5  | 9.7  | 2.8  | 9.0    | 1.7  |
| doctor                                       | 26.0    | 52.0 | 66.2 | 37.2     | 54.6 | 38.1 | 51.9 | 27.5   | 42.4 |
| other                                        | 1.7     | 1.3  | 0.0  | 0.9      | 0.9  | 0.9  | 0.0  | 3.4    | 0.0  |
| don't remember                               | 0.6     | 0.0  | 0.0  | 0.0      | 0.0  | 1.8  | 0.0  | 0.0    | 5.1  |
| no answer                                    | 1.2     | 1.3  | 1.5  | 0.0      | 0.0  | 3.5  | 0.0  | 1.1    | 5.1  |

Notes : a : S/SL = Sailor/seaport laborers; LSW = Female commercial sex workers in localization; NLSW = Female commercial sex workers in non-localization; TD/A = Truck drivers/driver assistants.

b : Number of all respondents.

c : Number of respondents who have ever had STD symptoms in the past year.

Besides "pain and hot when urinating", "white purulent vaginal discharge" was also a symptom commonly reported by female commercial sex workers. As respondents may have different perception towards the idea of "white purulent vaginal discharge", and as such, the symptom may not be a reliable indicator of STDs. Thus, the variation in the proportion of those who reported such a symptom may not necessarily reflect the variation in the STD related problem. Moreover, many female CSW respondents also said that vaginal discharge

(including *keputihan*) could be regarded as normal and would disappear on its own. Many women with this symptom are usually reluctant to seek treatment unless the symptom is persistent. Even so, many women would likely consult their unusual vaginal discharge when they visit family planning or ante natal clinic<sup>9</sup>.

### 3.4.2 Reported ever had STD and STD related symptom

Table 6 presents 2x2 table cross-tabulating between a variable on "reported ever had STD", notably, syphilis or gonorrhoea, and a variable on a particular STD related symptom, notably, "hot and pain when urinating", "painless and non-itching ulcer around genital", or "white purulent vaginal discharge". The strength of relationship between the reported ever had STD variable and the reported ever had STD related symptom variable could be statistically assessed through the value of OR (Odds Ratio) and its significant probability (p).

**Table 6**  
**CROSS-TABULATION (2 BY 2) BETWEEN REPORTED EVER HAD STD AND REPORTED EVER HAD PARTICULAR SYMPTOM, 1996**

| Reported symptom                   | Ever had STD |      |       |      |            |      |       |      |
|------------------------------------|--------------|------|-------|------|------------|------|-------|------|
|                                    | syphilis     |      |       |      | gonorrhoea |      |       |      |
|                                    | yes          | no   | OR    | p    | yes        | no   | OR    | p    |
| <b>Male respondents</b>            |              |      |       |      |            |      |       |      |
| <b>Hot and pain when urinating</b> |              |      |       |      |            |      |       |      |
| yes                                | 184          | 191  | 13.02 | 0.00 | 57         | 318  | 27.27 | 0.00 |
| no                                 | 9            | 1216 |       |      | 8          | 1217 |       |      |
| <b>Itching around genital</b>      |              |      |       |      |            |      |       |      |
| yes                                | 10           | 42   | 1.78  | 0.11 | 7          | 45   | 4.00  | 0.00 |
| no                                 | 183          | 1365 |       |      | 58         | 1490 |       |      |
| <b>Female CSW respondents</b>      |              |      |       |      |            |      |       |      |
| <b>Hot and pain when urinating</b> |              |      |       |      |            |      |       |      |
| yes                                | 22           | 183  | 23.77 | 0.00 | 2          | 203  | 3.91  | 0.14 |
| no                                 | 4            | 791  |       |      | 2          | 793  |       |      |
| <b>Itching around genital</b>      |              |      |       |      |            |      |       |      |
| yes                                | 5            | 85   | 2.49  | 0.07 | 1          | 89   | 3.40  | 0.26 |
| no                                 | 21           | 889  |       |      | 3          | 907  |       |      |
| <b>White purulent discharge</b>    |              |      |       |      |            |      |       |      |
| yes                                | 7            | 172  | 1.72  | 0.22 | 1          | 178  | 1.53  | 0.71 |
| no                                 | 19           | 802  |       |      | 3          | 818  |       |      |

The stronger relationship is indicated by the farther of the OR value from one and the significant probability of lesser than 0.05. Among the three reported different symptoms, "hot and pain when urinating" seems to be the reported symptom associated with the reported perceived STD. However, "hot and pain when urinating", which is clinically supposed to be a symptom of gonorrhea, was recognized more by the majority of respondents, both the males (sailors and seaport laborers and truckers) and the female commercial sex workers, as a symptom of syphilis rather than a symptom of gonorrhea. It seems that "painless and non-itching ulcer around genital" and also "white purulent vaginal discharge" were the reported symptoms not associated with STD.

### 3.5 STD treatment seeking behavior

In the context of public health measure, information regarding STD treatment seeking behavior is needed in order to assess the potential source of STD/HIV transmission in the population. In the BSS, respondents who reported ever had the predetermined symptom in the past year were probed whether or not they sought medical treatment, and, if they did, where they sought for such a treatment.

Of those who reported ever had STD, the majority (60 to 90 percent) performed self-treatment. For most part, the self-treatment was performed by the respondents by taking oral antibiotics, drinking *jamu*, applying antiseptic, or combining these various self-treatment<sup>10</sup>. People can easily buy oral antibiotics without prescription as a variety of antibiotics and other medicine are generally available in free market, notably, in street vendors or stalls nearby area of CSW localization or traditional market. Respondents usually bought oral antibiotics or medicine in incomplete treatment schedule, and used oral antibiotics not only for self-treatment but, in many cases, also for self-prevention. In this later case, a person took oral antibiotic immediately before sexual exchange. This common practice of taking improper or incomplete treatment schedule of oral antibiotics for STD self-prevention and treatment creates concern as such practice increases the problem of antibiotic resistance.

Of those who reported ever had STD symptom in the past year, 50 to 80 percent sought modern medical treatment<sup>11</sup>. In fact, many of those who sought medical treatment had previously performed self-treatment. They sought medical treatment after self-treatment did not cure the disease. Of those who sought medical treatment, 25 to 70 percent went to private medical practice, and a few of them went to local health centers/*Puskemas* (see Table 5). Thus, the survey

indicated that 20 to 50 percent of those who reported ever had STD did not seek any medical treatment, despite the fact that most people in the three cities have good access to various types of local health services (hospitals, doctors, health centers, private clinics, etc.). Various factors, such as socioeconomic factors, and accessibility and availability of affordable STD services contribute to such STD treatment seeking behavior.

### **3.6 Condom use**

#### **3.6.1 Male respondents**

Among male respondents who ever had sex, besides being solicited for their sexual behavior, they were also probed for information on their condom use behavior including reasons for using and not using condom at their episodes of sexual contact, including last sexual contact in the past year, with their spouse, casual partner, or commercial sex worker. Of those who ever had sex, 78 to 90 percent reported ever had sex with non-CSW women (see Table 7). Of those who reported ever had sex with non-CSW women, 10 to 20 percent reported ever had sex with non-CSW women other than their own wife (casual sex).

Among male respondents who reported ever had sex, their mean number of sexual contact with non-CSW women in the past year was 20 to 70 times with their first woman, and 3 to 67 times with their second woman. Use of condom at that sexual contact was very low as indicated by the fact that the mean number of using condom at the respective sexual contacts with both the first and the second woman was only 4 times or less (see Table 7).

In regard to sexual exchange with female CSWs, 45 to 55 percent of male respondents (sailors and seaport laborers and truckers) reported ever had sexual contact with female CSW, and of those who ever visited CSW, about 50 percent did visit CSW in the past year (see Table 8). The mean reported number of visits to CSW in the past year varied between cities from 4 to 15 times. Use of condom at sexual exchange with CSW is very low. The survey indicated that of those who ever had sex with CSW, only 5 to 15 percent used condom at their last sexual contact.

**Table 7**  
**PERCENTAGE DISTRIBUTION AND DESCRIPTIVE STATISTICS OF RESPONDENTS**  
**WHO EVER HAD SEXUAL CONTACT WITH WOMEN OTHER THAN CSWs, 1996**

| Target <sup>a</sup>                                             | Jakarta<br>S/SL | Surabaya<br>S/SL TD/A | Manado<br>S/SL |
|-----------------------------------------------------------------|-----------------|-----------------------|----------------|
| N <sup>b</sup>                                                  | 337             | 171 173               | 384            |
| Ever had sexual contact with non-CSW women (%)                  | 78.3            | 86.5 87.9             | 91.1           |
| N <sup>c</sup>                                                  | 264             | 148 152               | 350            |
| Status of sexual partner (%)                                    |                 |                       |                |
| Wife                                                            | 87.1            | 79.7 93.4             | 83.1           |
| Girl friend                                                     | 9.5             | 16.2 6.6              | 16.9           |
| Acquaintance                                                    | 9.1             | 6.8 5.3               | 14.0           |
| Other                                                           | 0.8             | 0.7 0.7               | 0.6            |
| No response                                                     | 0.0             | 0.0 0.7               | 0.3            |
| Number of non-CSW women in the past year                        |                 |                       |                |
| Mean                                                            | 1.2             | 1.3 1.1               | 1.3            |
| Median                                                          | 0.0             | 1.0 1.0               | 1.0            |
| Standard deviation                                              | 1.0             | 1.4 0.4               | 0.9            |
| Number of cases                                                 | 258             | 148 149               | 345            |
| Status of the first woman (%)                                   |                 |                       |                |
| Wife                                                            | 87.1            | 81.1 92.8             | 82.6           |
| Girl friend                                                     | 7.6             | 13.5 3.3              | 16.0           |
| Acquaintance                                                    | 5.3             | 5.4 3.9               | 1.4            |
| Others                                                          | 0.0             | 0.0 0.0               | 0.0            |
| Number of sexual contact with the first woman in the past year  |                 |                       |                |
| Mean                                                            | 56.1            | 58.1 70.3             | 20.1           |
| Median                                                          | 48.0            | 48.0 52.0             | 12.0           |
| Standard deviation                                              | 52.2            | 51.0 47.6             | 18.9           |
| Number of cases                                                 | 241             | 145 149               | 101            |
| Number of using condom with the first woman in the past year    |                 |                       |                |
| Mean                                                            | 2.5             | 2.8 1.7               | 0.3            |
| Median                                                          | 0.0             | 0.0 0.0               | 0.0            |
| Standard deviation                                              | 13.6            | 13.4 11.5             | 0.3            |
| Number of cases                                                 | 244             | 119 149               | 340            |
| Status of the second woman (%) <sup>d</sup>                     |                 |                       |                |
| Wife                                                            | 1.9             | 0.7 0.7               | 1.7            |
| Girl friend                                                     | 2.3             | 4.7 3.3               | 2.9            |
| Acquaintance                                                    | 5.7             | 5.4 2.7               | 13.4           |
| Other                                                           | 0.4             | 0.7 0.7               | 0.9            |
| Number of sexual contact with the second woman in the past year |                 |                       |                |
| Mean                                                            | 45.2            | 22.8 66.7             | 2.6            |
| Median                                                          | 4.5             | 7.0 29.0              | 2.0            |
| Standard deviation                                              | 70.3            | 31.2 83.2             | 1.8            |
| Number of cases                                                 | 22              | 17 12                 | 40             |
| Number using condom with the second woman in the past year      |                 |                       |                |
| Mean                                                            | 4.4             | 1.0 0.1               | 0.1            |
| Median                                                          | 2.0             | 1.0 1.0               | 0.0            |
| Standard deviation                                              | 17.3            | 3.8 1.0               | 0.5            |
| Number of cases                                                 | 25              | 17 12                 | 62             |

Notes : a : S/SL = Sailor/seaport laborers; TD/A = Truck drivers/driver assistants

b : Number of respondents who reported ever had sex.

c : Number of respondents who reported ever had sexual relationships with non-CSW women.

d : Apply to respondents who reported ever had sexual relationships with non-CSW women.

"Ever visited CSW" is shown to be an important risk factor for being infected with STD. The survey data indicate that the risk of ever had STD is about 8 times higher for those who ever visited CSW than those who never visit CSW (see Table 9). On the other hand, as the level of condom use is very low, the survey data were unable to be used for evaluating the protection effect of condom use on STD infection.

**Table 8**  
STD/HIV RISK INDICATORS FOR MALES RESPONDENTS  
(SAILORS/SEAPORT LABORERS, TRUCKERS), 1996

| Indicators                                              | Jakarta | Surabaya |      | Manado |
|---------------------------------------------------------|---------|----------|------|--------|
|                                                         | S/SL    | S/SL     | TD/A | S/SL   |
| % know at least 2 way of prevention                     | 70.3    | 74.5     | 77.0 | 83.0   |
| % ever had sex with female CSW                          | 53.7    | 55.5     | 54.0 | 45.2   |
| % ever had sex with f-CSW in the past year <sup>a</sup> | 62.2    | 65.8     | 56.5 | 37.0   |
| Mean # of visits to f-CSW in the past year <sup>a</sup> | 14.4    | 7.7      | 12.5 | 3.5    |
| % use condom at last sext with CSW                      | 14.0    | 9.9      | 6.5  | 9.9    |

Notes: S/SL= Sailors/seaport laborers, TD/A= Truck drivers/their assistants; CSW= Commercial sex workers; STD= Sexually transmitted diseases.

a : From respondents who ever had sex with CSW.

**Table 9**  
THE RELATIONSHIP BETWEEN "EVER VISITED CSW" AND  
"EVER HAD STD" AMONG MALE RESPONDENTS, 1996

|                  |     | Ever had STD |            | Total       |
|------------------|-----|--------------|------------|-------------|
|                  |     | Yes          | No         |             |
| Ever visited CSW | Yes | 299 (46.0)   | 351 (54.0) | 650 (100.0) |
|                  | No  | 87 (9.2)     | 863 (90.8) | 950 (100.0) |

Notes : OR = 8.45  
p = 0.00

### 3.6.2 Female commercial sex workers

Information regarding condom use among CSWs is important as it reflects not only their awareness of their potential as a source of infections to their clients, but also awareness of their own vulnerability to STD infections. Information on condom use collected in the survey included condom use in the

past week, condom use in last sex, sources of condom, and reasons for using or not using condoms.

When all the CSWs were asked whether or not they used condom in sexual contact with their clients in the past week, 21 percent replied "never", 43 percent replied "occasionally", 25 percent "often", and 11 percent replied "always" (see Table 10). Thus, it was only about 10 percent of female commercial sex workers who consistently used condom when having sex with their clients in the past week. Surprisingly, when all the CSWs were asked about whether or not they use condom in their last sex with their clients, much higher percentage, from 15 percent in Manado and around 50 percent in Jakarta, reported using condom. These high reported figures, however, should be treated with caution as the reliability study indicated a tendency among the CSWs to over report condom use in order to please the officials or the interviewers<sup>12</sup>.

Of those who reported using condom in their last sex with their client, the majority (68 percent) cited their client as the source of condom. The other cited main sources of condom include: stalls, drug stores, or apothecary; place of work; and the NGOs. The survey results that indicated clients as the main source of condom and high level of condom use among CSWs in their last sex (50 percent) invite our curiosity especially if these figures are compared with the relatively low level of condom use (below 10 percent) among male respondents who half of them may act as regular clients of female CSWs. It is likely that female CSWs tend to over report condom use in their last sexual contact.

When those who reported using condom in their last sex were asked about their reason for using condom, the majority (86 percent) replied "to avoid being infected with STDs". Since condom they used in their last sexual contact was mostly supplied by their clients, this high figure may not necessarily be indicative of their awareness of being infected with STDs. Of those who reported not using condom in their last sex, almost half of them provided a reason that their "guest/client does not want to use condom" as condom reduces "sexual pleasure" or "comfort". The female CSWs usually do not use condom in their sexual contact with their boyfriend or their regular clients. They will also not insist their sexual client to use condom if the client is "clean". Most CSWs have their own method of checking their client whom they suspect as "diseased" or "infected" just by looking at the tell-tale signs in the underwear, or the urethra opening.

**Table 10**  
**PERCENTAGE DISTRIBUTION AND DESCRIPTIVE STATISTICS OF**  
**CSWs BY THEIR SEXUAL BEHAVIOR PATTERNS AND CONDOM USE, 1996**

| Target groups <sup>a</sup>               | Jakarta |      | Surabaya |      | Manado | Total |
|------------------------------------------|---------|------|----------|------|--------|-------|
|                                          | LSW     | NLSW | LSW      | NLSW | NLSW   |       |
| N <sup>b</sup>                           | 200     | 199  | 201      | 200  | 200    | 1000  |
| Number of guests served in the last week |         |      |          |      |        |       |
| Mean                                     | 6.2     | 6.4  | 11.7     | 12.7 | 4.7    | 8.4   |
| Median                                   | 4.0     | 5.0  | 8.0      | 7.0  | 4.0    | 5.6   |
| Standard deviation                       | 6.6     | 6.4  | 9.8      | 12.3 | 3.0    | 7.7   |
| Condom use (%)                           |         |      |          |      |        |       |
| Never                                    | 15.5    | 25.1 | 14.4     | 39.0 | 12.0   | 21.2  |
| Occasionally/sometimes                   | 31.5    | 25.6 | 36.3     | 43.0 | 77.0   | 42.7  |
| Often                                    | 37.0    | 24.1 | 39.3     | 14.5 | 9.0    | 24.8  |
| Always                                   | 15.0    | 25.1 | 10.0     | 3.0  | 0.5    | 10.7  |
| Don't remember                           | 1.0     | 0.0  | 0.0      | 0.0  | 1.0    | 0.4   |
| No response                              | 0.0     | 0.0  | 0.0      | 0.5  | 0.5    | 0.2   |
| N <sup>c</sup>                           | 169     | 149  | 172      | 122  | 176    | 788   |
| Sources of condom (%)                    |         |      |          |      |        |       |
| Guest                                    | 65.1    | 50.3 | 72.1     | 66.4 | 81.3   | 67.6  |
| Other CSWs                               | 2.4     | 3.4  | 5.2      | 18.9 | 17.0   | 9.0   |
| Place of work                            | 11.2    | 37.6 | 30.8     | 16.4 | 9.7    | 20.9  |
| Stalls/drug store/apothecary             | 29.0    | 43.0 | 41.9     | 59.8 | 42.6   | 42.3  |
| Other                                    | 1.2     | 0.7  | 0.0      | 0.0  | 0.6    | 0.5   |
| Don't know                               | 2.7     | 2.0  | 0.0      | 1.6  | 0.0    | 1.2   |
| No response                              | 2.4     | 0.7  | 0.0      | 1.6  | 2.3    | 1.4   |
| Depkes/Dinsos/NGOs/Health worker         | 35.5    | 2.7  | 25.0     | 9.0  | 2.3    | 15.5  |
| Using condom at last sexual contact (%)  | 48.0    | 54.3 | 42.3     | 22.5 | 14.5   | 36.3  |
| N <sup>d</sup>                           | 96      | 108  | 85       | 45   | 29     | 363   |
| Reason for using condom (%)              |         |      |          |      |        |       |
| Avoid pregnancy                          | 2.1     | 17.6 | 12.9     | 22.2 | 20.7   | 13.2  |
| Avoid STDs                               | 86.5    | 85.2 | 81.2     | 91.1 | 89.7   | 85.7  |
| Others                                   | 2.1     | 1.9  | 2.4      | 4.4  | 0.0    | 2.2   |
| Don't know                               | 2.1     | 1.9  | 8.2      | 0.0  | 0.0    | 3.0   |
| Requested by the guest                   | 8.3     | 8.3  | 10.6     | 17.8 | 0.0    | 9.4   |
| N <sup>e</sup>                           | 103     | 91   | 115      | 153  | 169    | 631   |
| Reasons for not using condom (%)         |         |      |          |      |        |       |
| Condom reduces pleasure/comfort          | 7.8     | 14.3 | 9.6      | 17.0 | 16.0   | 13.5  |
| Hard to get condom                       | 2.9     | 0.0  | 0.0      | 2.6  | 2.4    | 1.7   |
| Partner don't want to use condom         | 35.0    | 26.4 | 51.3     | 47.7 | 66.9   | 48.4  |
| Know partner                             | 12.6    | 7.7  | 21.7     | 2.6  | 1.8    | 8.2   |
| Out of stock                             | 8.7     | 2.2  | 4.3      | 2.0  | 20.7   | 8.6   |
| Guest is clean                           | 2.9     | 14.3 | 3.5      | 0.7  | 0.6    | 3.5   |
| Did not think about using condom         | 0.0     | 0.0  | 0.9      | 2.0  | 0.0    | 0.6   |
| No need/tedious                          | 0.0     | 2.2  | 2.6      | 0.0  | 1.2    | 1.1   |
| Others                                   | 2.9     | 5.5  | 1.7      | 4.6  | 0.0    | 2.7   |
| Don't know                               | 27.2    | 26.4 | 10.4     | 24.8 | 4.7    | 17.4  |
| No response                              | 2.9     | 4.4  | 0.9      | 9.8  | 1.8    | 4.1   |

Notes : a : LSW = Female commercial sex workers in localization; NLSW = Female commercial sex workers in non-localization.

b : Number of all respondents.

c : Number of respondents who ever used condom.

d : Number of respondents who used condom in last sex with their clients.

e : Number of respondents who did not use condom in last sex with their clients.



#### 4. Conclusion

Respondents' STD knowledge was limited to only few STDs, notably, syphilis, gonorrhea, and AIDS. Moreover, such knowledge, on the basis of their reported symptoms, seemed to refer more to the "word" rather than to the disease. Most respondents mixed-up syphilis or gonorrhea with other STDs. Of those who reported ever had STD, many of them cited syphilis as the type of STD they ever had, but, at the same time, they inconsistently cited "pain and hot when urinating" as the symptom they ever had.

Substantial proportions of respondents, particularly male respondents (sailors and seaport laborers and truckers), reported ever had STD in the past year. The analysis revealed that among various STD related symptoms addressed in the survey, "pain and hot when urinating" was perceived by the majority of respondents as the STD related symptom. Among the many respondents, other symptoms, such as "painless and non-itching ulcer around genital", "itching around genital", and "white purulent discharge", may not be regarded as the STD related symptoms.

The practice of STD self-treatment by use of oral antibiotics, drinking *jamu*, and/or local antiseptic was common. Non-prescribed oral antibiotics was also often used for STD self-prevention by taking them immediately before the sexual exchange. More than half of those with STD related symptom sought medical treatment, particularly from private medical practice. However, many of those who reported to seek medical treatment also reported performing self-treatment. Thus, in general, people with STD related symptom are likely to perform self-treatment before seeking medical treatment. The survey indicated that 20 to 50 percent of those with the STD related symptom did not seek any medical treatment.

Among male respondents, about half reported ever visited female CSW, and about one-fourth reported ever visited female CSW in the past year. The survey showed that the risk of ever had STD was 8 times higher for those who ever visited female CSW than those who never visited female CSW. Use of condom at last sexual contact with female CSW was very low, below 10 percent.

Among female CSW respondents, the average number of their clients per day was from one to two. Use of condom at their last sexual contact varied between cities and between localization and non-localization from 15 to 50 percent. But the percentage of those who always use condom at their sexual

exchange was very low from one to 25 percent. Most female CSW were not consistent in using condom. They usually did not use condom when having sex with their boyfriends or their regular clients. The fact that those who reported using condom cited their clients as the source of condom and those who reported not using condom cited their clients did not want to use condom confirm the notion that clients have a more dominant role in the decision of using or not using condom in the sexual exchange.

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## Notes

1. Paper presented at the *Seminar on Improving Reproductive Health: International Shared Experience*. Bogor, December 4-5, 1997.

2. These selected groups of population include female commercial sex workers (CSWs), and sailors and seaport laborers in Jakarta, Surabaya, and Manado; truckers, and male and female factory workers in Surabaya; and male and female students in Manado.

3. A sentinel sites was defined as the site which meets the following criteria: relatively permanent locality, has clearly geo-physical boundary markers, and occupied regularly by individuals targeted by the survey.

4. See Lwangsa and Lemeshow (1991).

5. Results were compared at three different levels of disaggregation: (1) no-matching comparison, (2) sentinel-matching comparison, and (3) individual-matching comparison.

6. First, the word *sipilis* or GO (*kencing nanah*) exist in social idiom, stereo-casted as *penyakit kotor* (filthy disease) and is often used as humorous message/jokes for people who like to *jajan* (having sex with CSWs). Second, some high-risk behavior groups (such as CSWs or truck drivers) are also aware of it as "occupational hazard".

7. Some STDs, such as *sipilis* or GO (gonorrhea) are perceived to be "immediately curable". In most localization areas there are many stalls or *warungs* or *toko obat* (lit. medicine shop) selling various types of *jamu* (traditional herbal medicine), vitamins, antibiotics, and tonics. Blowfield (1992) in his study of commercial sex industry in Surabaya, noted that such perception may also reflect gross lack of actual knowledge about what STDs are and what their consequences are.

8. It is worth noting that a large proportion of female respondents noticed that they had experienced vaginal discharge-related infection which is locally known as *keputihan* (fluor albus, or unusual vaginal discharge). A study conducted in Lombok and Jakarta in 1994 found that the majority of female respondents did not regard *keputihan* as an RTI (reproductive tract infection). They perceived *keputihan* as a common phenomenon for women, therefore this disease persists untreated (Sadli et al. 1994:5-13). It is also striking that a quite high proportion of women reported to ever experienced chlamydial infection, a type of RTI caused by chlamydia trachomatis. It may be that those respondents have had exposure to information about chlamydia either from mass media or other sources such as doctor who treated her.

9. See Sadli et al. 1994.

10. In local social context, rumors or stories about the effectiveness (and also cheapness) of self-medication or the potency of some type of *jamu* or anti-biotics abound, and seem to be contributing to higher number of people who self-treat STDs.

11. It is very easy for anybody to obtain antibiotic and antiseptic in the open market. In some cases there are regular visits by social-health workers from the local services (*DinSos* and *DinKes*) to "registered" localization, and occasionally non-localization sites providing penicillin oil injections while at the same time taking blood samples for sero-surveillance purposes.

12. The reliability study is presented in the coming BSS complete report; see also Utomo 1997.

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