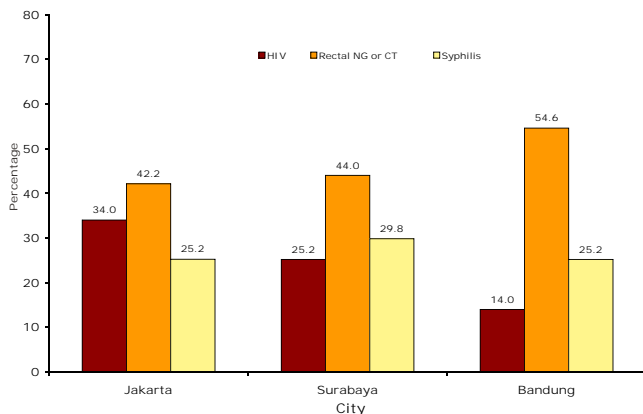


In Indonesia, men who have assumed a female identity (transgenders or transvestites) are referred to as Waria. Prior surveillance data indicate that Waria tend to engage in risky sexual behaviors, and have high HIV prevalence. This summary presents key findings of the IBBS 2007 for Waria from five (5) cities (Jakarta, Bandung, Semarang, Surabaya and Malang). Behavioral data were gathered in all five cities, while biological data were gathered in three cities (Jakarta, Bandung and Surabaya). Official estimates indicate that there were between 20,960 and 35,300 Waria in Indonesia in 2006.

Key Finding 1: HIV and sexually transmitted infection (STI) prevalence rates among Waria were extremely high in the three cities in which biological data were collected. The HIV sub-epidemic among Waria appears to be expanding.

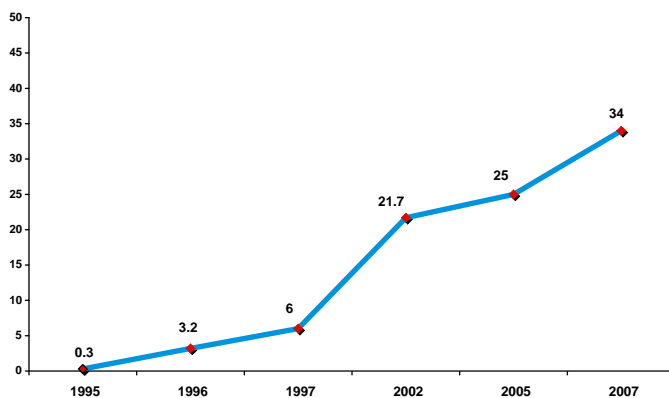
IBBS results from Jakarta, Bandung and Surabaya indicate high prevalence of HIV and other STIs among Waria. HIV prevalence ranged from 14% in Bandung to 34% in Jakarta, prevalence of either rectal gonorrhea or Chlamydia from 42% in Jakarta to 55% in Bandung, and syphilis prevalence from 25% (Jakarta and Bandung) to 30% in Surabaya (Figure 1). The prevalence of syphilis is noteworthy, being among the highest recorded in Asian countries in recent years. Prevalence of urethral STIs, however, was low (0-2%).

Figure 1: Prevalence of HIV and Other Sexually Transmitted Infections (STIs) and HIV among Waria in Three Cities, 2007.



Surveillance data for Waria going back to 1995 are available for DKI Jakarta (see Figure 2). These data provide a longer-term view of the evolution of the HIV/AIDS epidemic among Waria in Jakarta, which along with Surabaya has the largest number of resident Waria among Indonesian cities. Although the data should be interpreted cautiously due to differences in sampling methodology in the different rounds of surveillance data collection, the upward trend in HIV prevalence among Waria is unmistakable.

Figure 2: HIV Prevalence among Waria in Jakarta, 1995 – 2007.



Key Finding 2: The large majority of Waria sell sex to male customers. Many Waria also have regular, non-commercial male sexual partners.

Over 80% of Waria in four of the five cities reported having sold sex to male customers in the past year (Figure 3). The median duration of selling sex ranged between 9 and 13 years

Key Findings:

- ★ HIV and sexually transmitted infection (STI) prevalence rates among Waria were extremely high in the three cities in which biological data were collected. The HIV sub-epidemic among Waria appears to be expanding.
- ★ The large majority of Waria sell sex to male customers. Many Waria also have regular, non-commercial male sexual partners.
- ★ Consistent condom use during anal sex among Waria remains insufficient
- ★ Knowledge of preventive measures against transmission of HIV and STI was moderate to high in four of the five cities, but knowledge of HIV/STIs tended to be superficial.
- ★ Substantial proportions of Waria had recently used STI management services and received HIV counseling and testing.
- ★ Alcohol use among Waria is quite high, but use of drugs is moderate to low.

The 2007 IBBS among MARG was designed to measure key HIV/AIDS-related biological and behavioral indicators for key population sub-groups in Indonesia.

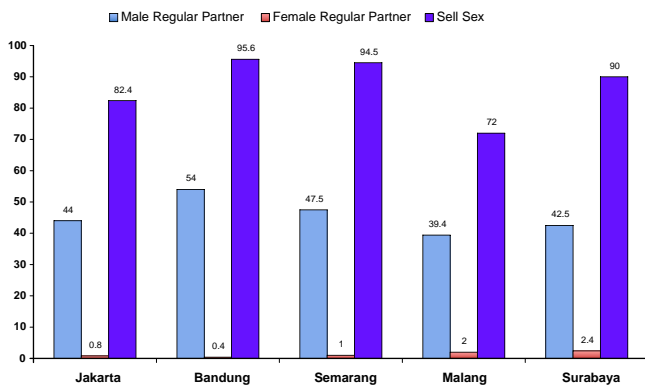
The 2007 IBBS was a collaborative initiative of the following organizations:

- Department of Health (DepKes)
- Statistics Indonesia (BPS)
- US Agency for International Development (USAID)
- National AIDS Commission (KPA)
- Family Health International – Aksi Stop AIDS (ASA) Program

Primary financial support for the 2007 IBBS was provided by the US Agency for International Development and the Indonesian Partnership Fund through Family Health International, which also provided technical support to the effort.

Additional financial support was provided by the World Health Organization (WHO) and The Australian Agency for International Development (AUSAID) through the Indonesian HIV/AIDS Prevention and Care Project (IHPCP).

Figure 3: Sexual Behaviors of Waria in Five Cities

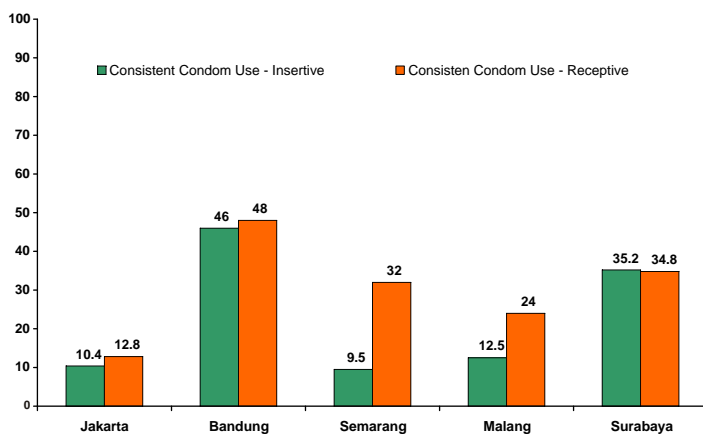


(see data table). The median number of clients in the last week ranged from 1 to 4 in the five cities. Typical places for meeting customers included along specific streets (53%), in parks (16%), and beauty parlors (13%) (data not shown). More than 90% of Waria reported having both anal and oral sex with clients during the last year. In addition to clients, and 40-50% of Waria also reported having regular male partners that they referred to as “husband”. Few Waria reported female partners in the prior year.

Key Finding 3: Consistent condom use during anal sex among Waria remains insufficient.

The 2007 IBBS data reveal low-to-moderate rates of consistent condom use during anal sex during the last month. Consistent condom use in receptive anal sex with clients ranged from 13% in Jakarta to 48% in Bandung. Consistency of condom use in insertive and receptive anal sex were comparable in three of the cities, but in Semarang and Malang condom use in insertive anal sex was significantly less frequent than in receptive sex, perhaps indicating recognition of the higher risk of HIV infection associated with unprotected receptive anal sex. Consistency of condom use with casual partners was slightly lower than with clients in all five cities. The proportion of Waria that were carrying a condom and lubricant with them at the time of the IBBS survey interview ranged between 41% and 51% in four of the five cities, but was only 20% in Semarang (see data table).

Figure 4: Consistent Use of Condoms and Lubricants in Commercial Anal Sex among Waria in Five Cities

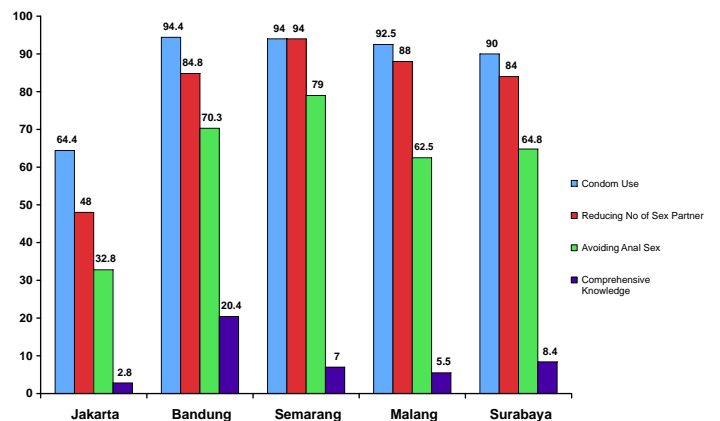


Key Finding 4: Knowledge of preventive measures against transmission of HIV and STI was moderate to high in four of the five cities, but knowledge of HIV/STIs tended to be superficial.

Waria are knowledgeable about actions that could reduce the risk of HIV transmission. Over 90% of Waria in four of the five cities knew that condoms protected against HIV infection, 80% or more knew that reducing their number of sexual partners would reduce their risk of infection, and 63%-79% knew that anal sex exposed them to elevated risk of HIV infection. The exception was Jakarta, where knowledge of prevention measures was much lower. However, misperceptions about HIV/AIDS were widespread in all five cities, resulting in low overall knowledge of HIV/AIDS. Waria reported condom breakage rates ranging from 11% to 18% in the last three months, suggesting that

although Waria tended to be aware of the protection offered by condoms, they did not necessarily know how to use them properly.

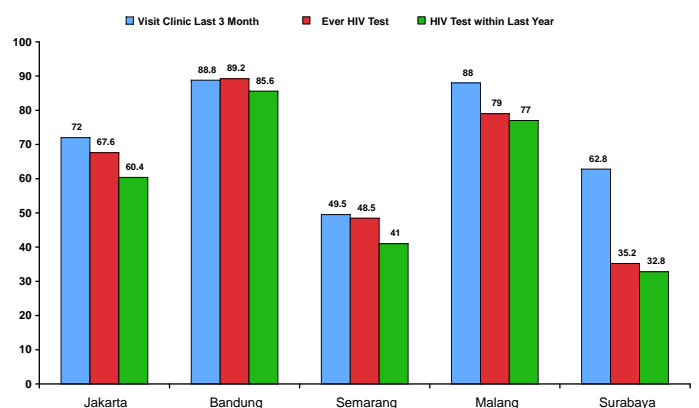
Figure 5: Knowledge of HIV Prevention Measures and Overall Knowledge of HIV/AIDS among Waria in Five Cities



Key Finding 5: Substantial proportions of Waria had recently received STI management services and HIV counseling and testing.

Coverage of STI services among Waria in the three months prior to IBBS data collection exceeded 50% in four of the five cities, reaching as high as 89% in Bandung and 88% in Malang, and fell just below 50% in Semarang (Figure 6). Except in Surabaya, roughly comparable proportions of Waria had received HIV counseling and testing services as had been screened for STIs in the previous three months, which likely reflects the impact of co-locating STI management and VCT services in these cities at strategically chosen Puskesmas. This finding might also reflect the increasing adoption of “opt-out” strategies wherein Waria who present at clinics for STI screening automatically receive HIV pre-test counseling and an opportunity to be tested for HIV. The reasons for the significant gap in coverage between of STI and VCT services among Waria in Surabaya should be explored, as such a gap indicates numerous missed opportunities for Waria to learn their current HIV status. More than 90% of Waria who had ever been tested for HIV had been tested during the last year, perhaps reflecting expansion of service availability, increasing acceptance of VCT among Waria, or both.

Figure 6: Proportions of Waria in Five Cities Visiting STI Clinics in the Last Three Months and Having Been Tested for HIV



Key Finding 6: Alcohol use among Waria is quite high, but use of drugs is moderate to low.

Alcohol use among the Waria in all five cities was moderately high (see data table). The proportion of Waria who consumed alcohol in the past three months ranged between 37% in Semarang and 72% in Bandung. Drug use, however, was much less common, with the proportion using non-injecting drugs in the past year ranging between 3% and 17% in Malang and Jakarta, respectively. The proportion of Waria injecting drugs in the past year was quite low—2% or under in four of the five cities.

Key Indicator Waria

	Jakarta	Bandung	Surabaya	Semarang	Malang
HIV prevalence (%)	34	14	25		
HIV prevalence by duration, of selling sex (%)					
<1 year (%)	15.8	0	9.5		
>1 year (%)	39.1	16.0	28.4		
Rectal Chlamydia trachomatis (%)	22.7	34.5	33.7		
Rectal Neisseria gonorrhoea (%)	29.8	37.4	19.8		
Syphilis (all) (%)	25.2	25.2	28.8		
Rectal Chlamydia or gonorrhoea(%)	42.1	54.6	44.0		
Visited STI Clinic or doctor for STI symptoms in the last 3 months (%)	73.2	70.0	44.2	55.0	85.9
Sold sex in the last year (%)	82.4	95.6	90.4	94.5	72
Median duration selling sex (years)	10	11	9	11	13
Median number of clients for anal sex in past week	2	1	4	2	2
Carried condom & lubricant at survey interview					
Both	44.4	41.2	46.4	19.5	51.0
Condom only	37.2	6.8	14.4	21.0	17.5
Lubricant only	1.6	0.8	1.6	2.0	3.0
Neither	16.8	51.2	37.6	57.5	28.5
Always used condom at receptive anal sex with client in the past month (%)	15.0	50.0	38.2	33.9	32.0
Used water-based lubricant in last anal sex (%)	23.8	23.3	14.5	16.3	22.2
Experienced condom breakage in the last 3 months (%)	18.4	16.8	12.8	10.5	14.0
Know that condoms protect against STI & HIV (%)	64.4	90.4	90.0	94.0	92.0
HIV test in past year (%)	60.4	85.6	32.8	41.0	77.0
Used drugs in the past 3 months (%)	13.4	10.0	6.4	17.0	2.5
Ever injected drugs (%)	1.2	2.8	1.2	0.5	2.0
Age group					
<25 years	28.8	29.6	26.8	23.5	19.0
25-34 years	39.2	34.8	34.4	34.5	32.5
35 years or more	32.0	35.0	38.8	42.0	48.5
Education Level					
<=Elementary School	5.6	2.4	10.8	8.5	16.0
Elementary -Junior High	58.8	50.0	49.6	44.0	47.5
Senior High School & above	37.6	47.0	39.6	47.0	36.0

Conclusions and Recommendations

Data from the 2007 IBBS among most at risk groups (MARG) in Indonesia provide insights into the current status of the HIV/AIDS epidemic among Waria, as well as data with which to update trends in HIV-related biological and behavioral indicators over time. These data thus contribute to the growing, but still limited, evidence base for decision making concerning HIV/AIDS in Indonesia. Conclusions and key recommendations concerning Waria include the following:

- ★ The high HIV and STI prevalence rates among Waria demands urgent action to expand program coverage, increase condom and lubricant use rates, and increase their regular use of STI management services.

High STI prevalence and rising HIV prevalence among Waria indicate that existing programs have not yet resulted in adoption of risk reduction behaviors on a sufficient scale to slow the sub-epidemic among Waria. As the primary clients of Waria tend to be young men, who constitute a potential “bridge” to the general population, Waria have the potential to have a much larger impact the HIV/AIDS epidemic in Indonesia than their numbers alone would suggest. Programs need to both expand their coverage and their effectiveness in influencing risk-taking and health-seeking behaviors among Waria. Key program components should include access to accurate information, behavior change communications, condom and lubricant promotion, secure access to condoms and lubricants, access to effective treatment of STIs, access to voluntary counseling and testing, and access to care, treatment and support. In view of generally low education levels among Waria (see data table), providing information in simple, easy-to-understand ways is crucial. Because of their influence program efforts are likely to be most effective if they involve/work through “mammies” (that is, mother figures who are leaders of Waria communities) and/or through Waria organizations.

- ★ The high prevalence of rectal STIs among Waria should be addressed with a combination of Periodic Presumptive Treatment (PPT) and more regular STI screening of Waria. Syphilis merits special attention.

Periodic presumptive STI treatment (PPT) has been shown in Indonesia and elsewhere to result in at least short-term reductions in STI prevalence among female sex workers. PPT should be extended to Waria, among whom routine STI screening and treatment heretofore has not been successful in reducing STI prevalence even with relatively high coverage, as well as their regular partners. Special attention should be given to the diagnosis and treatment of syphilis among Waria given the danger of syphilis as a risk co-factor for HIV transmission.

- ★ Increasing consistent condom use among Waria should be the highest priority.

Neither routine STI screening and treatment nor PPT will be effective in maintaining low STI prevalence among Waria unless condom use rates are increased. Unfortunately, the 2007 IBBS data indicate that the proportion of Waria who consistently used condoms with clients and regular partners failed to reach 50% in any of the five cities for which data was available, and in Jakarta failed to reach 20%. In the case of Waria, this is NOT due to inadequate levels of knowledge of the protective benefits of condoms. The data suggest that reliable access to condoms is an issue, and most Waria had not had hands-on practice in using condoms in the past year (if at all). The frequent (reported) rate of condom breakage suggests widespread improper application of condoms. Operations research should be undertaken to better understand the barriers to increased and correct condom use among Waria to guide the modification of interventions to overcome these barriers, and programs should focus on educating Waria on proper condom use.

- ★ Attention needs to be focused on adopting safe sex practices with noncommercial partners as well as customers.

The 2007 IBBS data indicate that many Waria have regular male partners (“husbands”) in addition to multiple commercial sex clients, and that consistent condom use appears to be even lower with such partners than with commercial clients. Special initiatives are needed to encourage condom use and to reach regular partners of Waria with accurate information on HIV/AIDS and risk reduction



strategies. As with IDU, partners of Waria should be encouraged for STI to be tested for STIs and HIV as a matter of high priority. PPT for regular partners of Waria might also be considered.

- ★ Prevention efforts for Waria should focus greater attention on those already infected.

Global research evidence indicates that behavior change interventions tend to be more effective among persons who know their HIV status, particularly among those who are HIV positive. In view of the relatively high HIV prevalence rates among Waria in Indonesia, significant gains in prevention cost-effectiveness and impact might be realized by assigning highest priority in prevention initiatives to motivating and enabling Waria who are already infected to take steps to avoid infecting others, both clients and regular partners or “husbands.” However, it will be necessary to improve the quality of HIV counseling and mobilize communities of Waria to take positive action in this regard in order for this approach to be effective.

- ★ Clinic visits by Waria should be used to greater advantage to promote increased condom use and other risk reduction strategies.

In the cities in which data on Waria were gathered for the 2007 IBBS, Waria appear to be willing and able to use public health clinics (Puskesmas) to access STI management services and HIV counseling and testing. Visits by Waria to such facilities provide opportunities for clinic staff to promote increased condom use and other protective behaviors and should be taken maximum advantage of. Guidelines and educational and behavior change materials for use by clinic staff to promote HIV prevention should be developed and widely disseminated as quickly as possible.

- ★ Prevention efforts among Waria should also focus on alcohol abuse.

Excessive alcohol consumption has been established as a risk factor for sexual risk taking and HIV transmission on more or less a global basis. As little is known about the role that alcohol abuse plays in sexual risk taking among Waria in Indonesia, formative research should be undertaken to guide potential interventions designed to reduce the impact of alcohol on HIV transmission among Waria and their clients and partners.



This IBBS Highlight summarizes key findings from the 2007 Integrated Biological-Behavioral Surveillance (IBBS) among Most-at-Risk-Groups (MARG) in Indonesia. Further data and analyses will be posted to the websites of The Department of Health (DepKes), the National AIDS Commission (KPA), and Family Health International (FHI).

The Department of Health (DepKes)

www.depkes.go.id

The National AIDS Commission (KPA)

www.aidsindonesia.or.id

Family Health International – Aksi Stop AIDS (ASA) Program

www.fhi.org