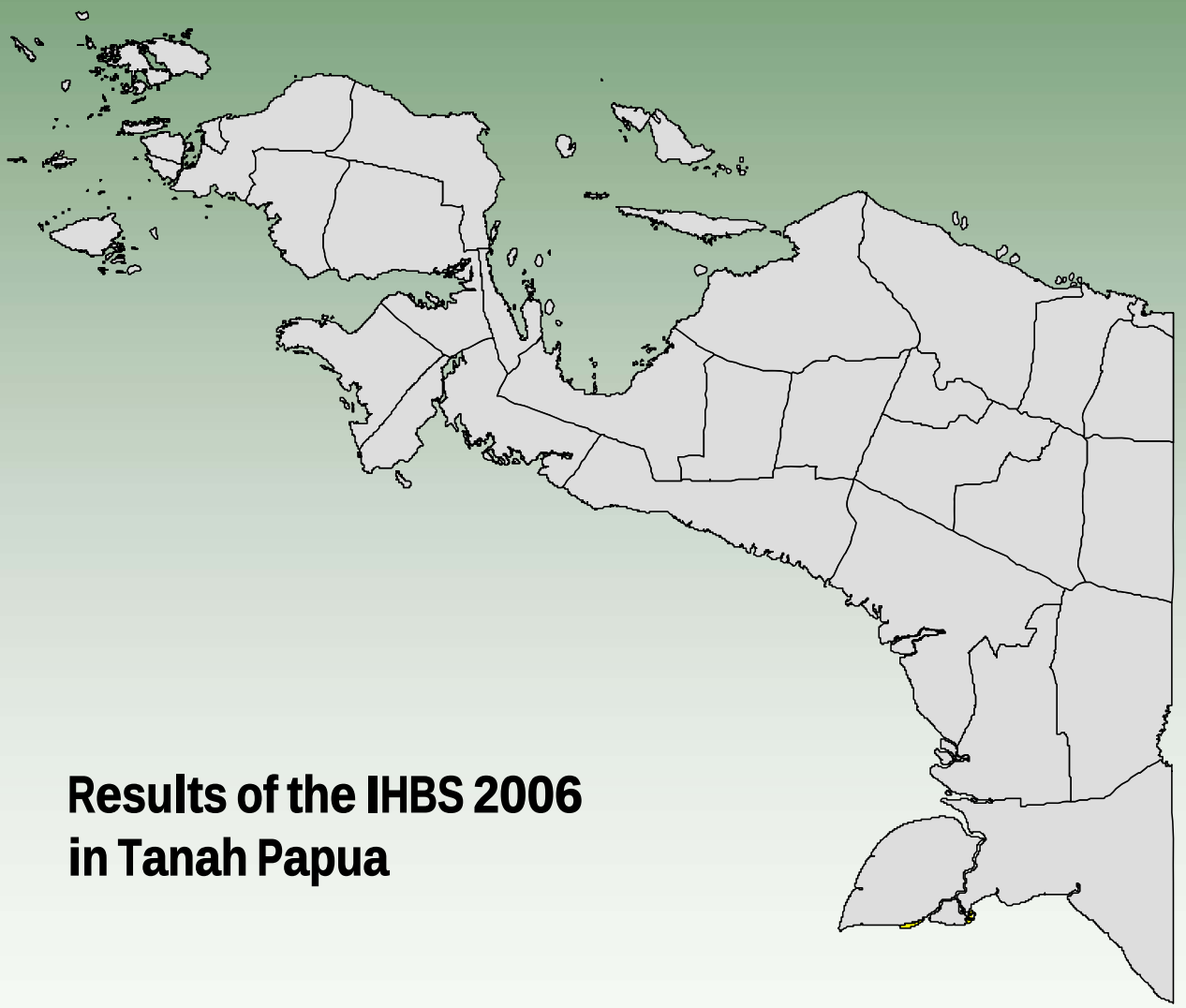
Risk Behavior and HIV Prevalence in Tanah Papua 2006



Results of the IHBS 2006 in Tanah Papua

A Collaboration between the
Ministry of Health
and the
Central Statistics Agency

Risk Behavior and HIV Prevalence in Tanah Papua 2006
Results of the IBBS 2006 in Tanah Papua

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Team :

Advisors :	Arizal Ahnaf, MA Dr. I Nyoman Kandun, MPH Dr. Nafsiah Mboi, SpA, MPH
Editors:	Arizal Ahnaf, MA Drs. Rusman Desiar, MSi Dr. Pandu Riono, MPH, PhD Dr. Pandu Harimurti, MPPM
Authors:	Yeane Irmanigrum S., MA J. B. Priyono, MSc Drs. Ibram Syahboedin, MA Togi Siahaan, DpSc Ir. Purwanto Ruslam Aang Sutrisna
Assistant to authors :	Diyah Wulandari, SSi
Data Processor :	Sugih Hartono, SSi Aang Sutrisna Guy Morineau
Design:	Gaib Hakiki
English version Translator : Editors :	 Sally Wellesley Dr. Pandu Riono, MPH, PhD Dr. Pandu Harimurti, MPPM

Foreword

As we know from AIDS reports, cummulative AIDS cases in Papua until the end of March 2007 was the second highest in the country after Jakarta. However, if it is accounted as a proportion to its population number, the case rate (number of cases/total population times 100,000) in Papua was 60.93 per 100,000 or 15.4 times higher than the national average (3.9), while in Papua Barat was 10.24 per 100,000 or 2.60 times higher than the national average. This makes Papua has the highest proportion of AIDS cases in Indonesia.

In 2006 the Ministry of Health and provincial Health Offices in Tanah Papua, in collaboration with National/Local AIDS Commission, Statistics Indonesia (BPS), with supports from the World Bank and USAID – FHI/ASA has completed Integrated Bio-Behavioral Surveillance (IBBS2006) in Tanah Papua (the Land of Papua) which sampled 10 districts. IBBS2006 is a population-based survey, and it was conducted between September-October 2006.

The IBBS2006 results showed that HIV prevalence among Tanah Papua population was 2.4 percent among population age group 15 – 49 years old which was higher compare to other parts of the country. The survey also showed that it was already widespread all over Tanah Papua. This situation requires serious attention and also an intensive and specific strategy needs to be developed and established to prevent further spread of the disease and become a generalized epidemic as already happened in Sub Sahara Africa. We might need to learn from our neighboring country, Thailand, that has proven that comprehensive and integrated efforts which mobilize available resources could reverse the course of the epidemic and prevent millions from HIV/AIDS.

This is a very appropriate moment to apply "*Bringing Evidence into Action*" by using the IBBS2006 results as the basis to develop the intensified HIV/AIDS Control Program for Tanah Papua. The program is a comprehensive and accurately by mobilizing resources from the Central and Local Governments, Private and Community, and also donor agencies in optimal and synchronized ways.

To all those who supported the organization of the IBBS2006 from the preparation up to the publication of this report, I would like to express my thanks and appreciation. We hope that this publication will make a significant contribution to preventing the spread of HIV/AIDS, especially in Tanah Papua.

Jakarta, April 2007

Ministry of Health of the Republic of Indonesia
Director General DC&EH

Dr. I Nyoman Kandun, MPH

Foreword

In response to the suspected high prevalence of HIV/AIDS among the general population in Tanah Papua, the Central Statistics Agency (BPS) collaborated with the Directorate General of Communicable Disease Control & Environmental Health - Ministry of Health, with funding and technical support from the World Bank and *Family Health International* (FHI), to carry out an integrated behaviour and HIV surveillance survey in the middle of 2006. This activity was designed to represent "Tanah Papua" (the Land of Papua), and therefore covered the Provinces of Papua and West Papua, and was known as the "Integrated Bio-Behaviour Surveillance 2006" (IBBS2006).

This publication, entitled "Risk Behaviour and HIV Prevalence in Tanah Papua 2006" was compiled from the results of the IBBS2006. The book's contents include the level of knowledge and risk behaviour among this population with regard to HIV transmission, and estimates of the people with HIV in Tanah Papua. In line with the sample design, the tabulated results of this survey were generally presented according to three topographic areas, namely the highlands, hard-to-access lowlands areas and easily accessible lowlands areas.

To all those who supported the organization of the IBBS2006, and in particular the World Bank and FHI who provided funding support, and to all the technical teams from BPS, the Ministry of Health, the World Bank and FHI who played important roles right up to the publication of this book, I would like to express my thanks and appreciation. Thanks are also due to the National AIDS Commission, the Regional AIDS Commissions, BPS, local Health Offices, Cendrawasih University, and various non-governmental organizations in Tanah Papua who helped with the preparations and implementation of the activities in the regions.

We hope this publication will make a significant contribution to preventing the spread of HIV/AIDS, especially in Tanah Papua.

Jakarta, April 2007

Central Statistics Agency
Deputy, Social Statistics Division,

Arizal Ahnaf, MA

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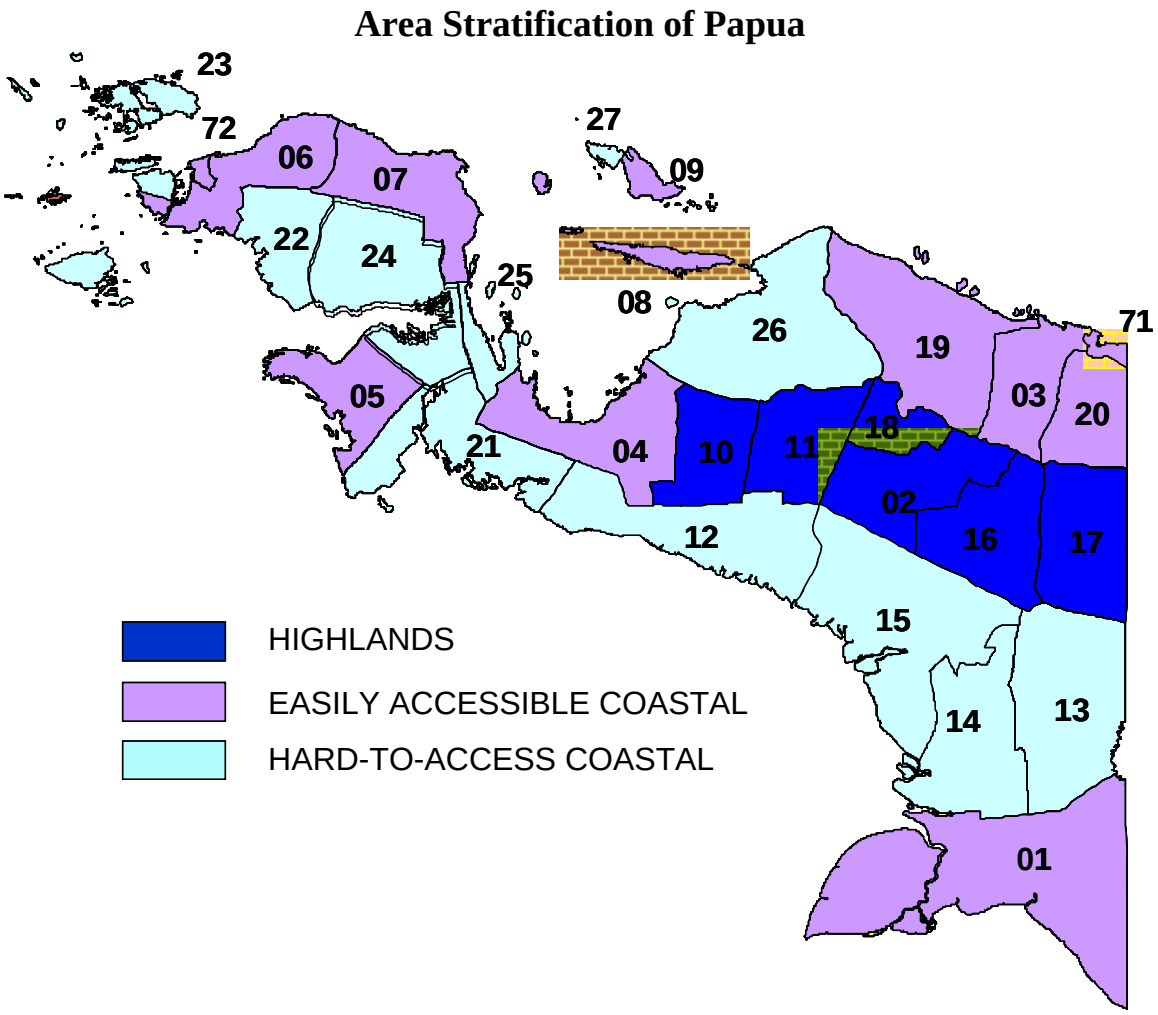
MAP OF TANAH PAPUA



DISTRICT/CITY CODES		
01 Merauke	11 Puncak Jaya	21 Kaimana
02 Jayawijaya	12 Mimika	22 Sorong Selatan
03 Jayapura	13 Boven D	23 Raja Ampat
04 Nabire	14 Mappi	24 Tel Bintuni
05 Fak Fak	15 Asmat	25 Tel Wondama
06 Sorong	16 Yahukimo	26 Waropen
07 Manokwari	17 Peg.Bintang	27 Supiori
08 Yapen	18 Tolikara	71 Kota Jayapura
09 Biak N	19 Sarmi	72 Kota Sorong
10 Paniai	20 Keerom	

FRONT COVER

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BACK COVER

With the support of
The World Bank, USAID, FHI/ASA and the NAC

MAP OF TANAH PAPUA

Area Stratification of Papua

[Map Key]

HIGHLANDS
EASILY ACCESSIBLE LOWLANDS
HARD-TO-ACCESS LOWLANDS

[Table]
DISTRICT/CITY CODES

[Footer]
Risk Behaviour and HIV Prevalence in Tanah Papua 2006

1

HIV Transmission Risk in Indonesia and Papua

The HIV-AIDS Epidemic Situation in Indonesia

In most parts of Indonesia, the HIV Epidemic is still concentrated in high-risk sub-populations. National HIV and AIDS Surveillance data from the Ministry of Health indicate that the number of infections continued to rise until the end of 2006. The highest reported prevalence of infections through commercial sex is 22.8% in Sorong, while prevalence through infections resulting from the use of non-sterile needles was recorded at more than 50% at the Drug Rehabilitation Centre at RSKO Jakarta and at 68% among inmates at Bekasi Prison.

The AIDS epidemic has now spread to all parts of Indonesia. At the end of 2000 only 16 provinces had reported cases of AIDS. By the end of 2003 this had risen to 25 provinces, and in 2006 there were 32 provinces reporting AIDS cases. The existing data also point to a significant increase in the number of AIDS cases reported by health service units.

As of December 2004 there was a cumulative total of 2,682 reported AIDS cases. In just one year this figure rose by 100 percent, to 5,321 cases at the end of 2005. The number of AIDS cases has continued to escalate, and by the end of September 2006 there was a cumulative total of 6,871 reported cases.

The HIV-AIDS Epidemic in Papua

Several studies have shown that the extent of the HIV-AIDS epidemic in Papua is much greater than in other parts of Indonesia. The number of AIDS cases reported there is much higher compared to other areas, and the highest reported HIV prevalence among direct sex workers comes from sentinel reports in Papua.

Several studies indicate that sexual behaviour among the people of Tanah Papua (the Land of Papua) is quite high-risk. One of them, the results of the Qualitative Study on Sexual Behaviour in Papua (Uncen, 2002) indicated that many in the Papuan community have multiple partners, and that the majority begin to have sexual relationships at an early age.

The results of a behavioural survey among civil servants in Jayapura in 2003 indicated that some 32 percent of male civil servants in Jayapura had bought sex.

A number of smaller surveys suggest that HIV transmission has spread throughout the general population in Papua, prompting the need for a large-scale survey of the general population in Papua in order to gain a better understanding HIV prevalence and the dynamics of transmission in Papua.

The Integrated Bio-Behaviour Survey 2006 (IBBS2006) of the residents of Tanah Papua, conducted by the Ministry of Health and the Central Statistics Agency (BPS) with the support of the National AIDS Commission, the Papua Provincial AIDS Commission and West Papua Provincial AIDS Commission, is expected to be able to give a clearer picture of the behaviour and the spread of HIV among the population of Tanah Papua. The people of Tanah Papua referred to in the IBBS2006 covers the people living in the Provinces of Papua and West Papua. Funding support for the survey was provided by USAID, through Family Health International's Aksi Stop AIDS Program, and by the World Bank.

2

Demographic Characteristics

The results of the Integrated Bio-Behaviour Survey 2006 (IBBS2006) of the residents of Papua are expected to provide a clearer picture of the behaviour and the spread of HIV among the population of Papua. The population of Tanah Papua (the Land of Papua) referred to in the IBBS2006 includes the residents of the Provinces of Papua and West Papua. In this chapter we will present various data regarding the demographic characteristics of the population, namely age, education and marital status.

2.1 Population Distribution based on Topographic Area

The topographic conditions of Tanah Papua in the IBBS2006 were divided into three categories: Highland, Easily Accessible Lowlands, and Hard-to-Access Lowlands. More than 50 percent of the population live in Easily Accessible Lowlands areas, while some 28 percent live in the Highlands. The remaining 20 percent live in Hard-to-Access Lowland areas.

The distribution of the population by topographic area, sex, and age group is shown in Table 2.1.

Table 2.1 Distribution percentage of the population aged 15-49 by topographic area, sex and age group

Topographic Area	Sex			Age group			
	Male	Female	Total	15-24	25-39	40-49	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Highland	28.5	27.8	28.2	28.1	28.1	28.2	28.2
Easily Accessible Lowlands	50.8	52.0	51.4	51.4	51.4	51.3	51.4
Hard-to-Access Lowlands	20.7	20.2	20.4	20.4	20.4	20.5	20.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

The distribution patterns of the population of Papua by topographic area, sex and age group show similarities.

Population characteristics based on ethnicity—that is, Non-Papuan and Papuan—according to sex and age group, are presented in Table 2.2.

Table 2.2 Distribution percentage of the population aged 15-49 by ethnicity, sex and age group

Ethnicity	Sex			Age group			
	Male	Female	Total	15-24	25-39	40-49	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Non-Papuan	30.8	31.4	31.1	27.8	33.6	30.8	31.1
Papuan	69.2	68.6	68.9	72.2	66.4	69.2	68.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Similarities in the patterns of population distribution according to ethnicity are apparent across male residents and female residents. The ethnic Papuan population is bigger than the non-Papuan population, with some 69 percent being ethnic Papuans and around 31 percent non-ethnic Papuans.

2.2 Age and Educational Background

The age range of the population surveyed in the IBBS2006 was 15-49 years. There were no significant differences between the average age of male residents and female residents; the average for males was 30.2 years and for females, 29.5 years. The percentages and average ages of the population according to sex and age group are presented in Table 2.3.

Table 2.3 Percentage and average age of the population aged 15-49 by sex and age group

Sex	Percentage/Average Age	Age group			
		15-24	25-39	40-49	Total
(1)	(2)	(3)	(4)	(5)	(6)
Male	Percentage	33.5	44.9	21.6	100.0
	Average Age (years)	19.5	31.6	44.1	30.2
Female	Percentage	34.2	48.1	17.7	100.0
	Average Age (years)	19.6	31.4	43.7	29.5
Total	Percentage	33.8	46.4	19.7	100.0
	Average Age (years)	19.6	31.5	43.9	29.9

A total of 32.2 percent of male residents had completed senior high school and university, while 26.3 percent of female residents had achieved the same level of education. However, many residents had either never been to school or not completed primary school. For

males this percentage was 29.2 percent, while for females it was much higher, at 42.3 percent. The percentage of residents based on educational background according to sex and age group is presented in Table 2.4.

Table 2.4 Percentage of the population aged 15-49 by educational background, sex and age group

Level of Education Completed	Sex			Age group			
	Male	Female	Total	15-24	25-39	40-49	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Did not attend school/Did not finish Primary	29.2	42.3	35.5	31.0	34.4	45.7	35.5
Primary and Junior High	38.6	31.4	35.2	42.0	32.0	30.9	35.2
Senior High and University	32.2	26.3	29.4	27.0	33.6	23.4	29.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

2.3 Marital Status

A total of 2.5 percent of male residents said that they were cohabiting; for female residents, the total was 4.5 percent. The percentage of unmarried residents was 32.6 percent for males, against 21.6 percent for females. Among the 40-49 age group, 2.0 percent were unmarried. The percentage of the population based on marital status, sex, and age group is presented in Table 2.5.

Table 2.5 Percentage of the population aged 15-49 by marital status, sex and age group

Marital Status	Sex			Age group			
	Male	Female	Total	15-24	25-39	40-49	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Not Married	32.6	21.6	27.3	63.2	12.0	2.0	27.3
Civil Marriage	33.2	38.0	35.5	13.2	45.0	51.4	35.5
Customary Marriage	29.8	32.4	31.0	19.1	36.4	38.8	31.0
Divorced	0.8	1.7	1.2	0.9	1.4	1.5	1.2
Widowed	1.0	1.9	1.4	0.2	1.1	4.3	1.4
Cohabiting	2.5	4.5	3.4	3.4	4.1	2.0	3.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Female residents were asked in more detail about their pregnancy history; specifically, about the number of pregnancies they had had, including failed pregnancies. Among female residents in the 15-24 age group, 8.5 percent had been pregnant 4 or more times.

On the other hand, 4.4 percent of female residents in the 40-49 age group had never been pregnant.

Table 2.6 Percentage of the female population aged 15-49 by total pregnancies and age group

Total Pregnancies	15-24	25-39	40-49	Total
(1)	(2)	(3)	(4)	(5)
0	22.5	7.5	4.4	9.9
1	33.1	15.1	7.2	17.1
2	24.5	21.0	11.9	19.7
3	11.4	22.1	18.2	19.0
4+	8.5	34.3	58.4	34.3
Total	100.0	100.0	100.0	100.0

2.4 Occupation

The largest percentage of the residents—40.2 percent of males and 38.6 percent of females—worked as farmers. There was a fairly significant difference in the "labourer/employee" category: 25.0 percent of the male residents reported this occupation but just 9.5 percent of female residents. On the other hand, while 20.0 percent of males were in the "unemployed" category, the percentage of females with no job reached 43.2 percent.

Table 2.7 Percentage of the population aged 15-49 by type of occupation, sex and age group

Type of Occupation	Sex			Age group			
	Male	Female	Total	15-24	25-39	40-49	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Farmer	40.2	38.6	39.4	29.4	43.0	48.3	39.4
Fisherman	6.1	1.6	4.0	3.2	4.0	5.1	4.0
Labourer/ Employee	25.0	9.5	17.5	10.0	21.4	21.1	17.5
Trader	4.4	5.9	5.1	2.9	6.3	6.2	5.1
Other	4.3	1.1	2.8	2.1	3.0	3.4	2.8
Unemployed	20.0	43.2	31.2	52.4	22.2	15.8	31.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Most of the residents who worked, whether male or female, had an income of between 101 thousand and 500 thousand rupiah. By sex, this income group accounted for 34.0 percent of males and 28.6 percent of females. A total of 34.9 percent of the population (23.2 percent of males and 47.4 percent of females) had no income.

Table 2.8 Percentage of the population aged 15-49 by monthly income category and sex

Monthly Income Category (Rupiah)	Male	Female	Total
(1)	(2)	(3)	(4)
No Income	23.2	47.4	34.9
≤ 100,000	7.7	10.3	9.0
101,000 – 500,000	34.0	28.6	31.4
501,000 – 1,500,000	27.0	10.9	19.2
≥ 1,500,000	8.1	2.7	5.5
T o t a l	100.0	100.0	100.0

3

Knowledge about HIV/AIDS

In this chapter we discuss what the people of Tanah Papua know about HIV/AIDS. Correct knowledge about HIV/AIDS goes a long way to help change the behaviours that put people at risk of being infected with HIV/AIDS.

3.1. Correct Perceptions about HIV/AIDS

A total of 51.8 percent of the population of Tanah Papua had heard about or had some information about HIV/AIDS. Male residents had more information than females: 55.5 percent compared to 47.8 percent. Based on educational background, it was apparent that the higher the level of education, the higher the percentage of residents who had some information about HIV/AIDS. This was consistent for both males and females. Of the residents who had never been to school or had not finished primary school, only 26.3 percent had ever received information about HIV/AIDS, while for those who had completed primary and junior high, 54.7 percent had some information, and 79.2 percent of residents who had finished senior high school knew something about HIV/AIDS.

Table 3.1 Percentage of the population who have had information about HIV/AIDS according to educational background and sex

Educational Level Completed	Male	Female	Total
(1)	(2)	(3)	(4)
Never attended school/did not finish Primary	29.5	23.9	26.3
Primary and Junior High	55.8	53.3	54.7
Primary and Junior High	78.7	79.7	79.2
Total	55.5	47.8	51.8

A total of 41.4 percent of the residents of Tanah Papua know that AIDS is caused by a virus. More males are aware of this than females, at 44.0 percent and 38.6 percent respectively. Among both male and female residents, the higher the educational level of the residents, the higher the percentage who knew that AIDS is caused by a virus. Of the residents who had never been to school or had not completed primary education, only 14.2 percent were aware of this fact, while of those who had completed primary and junior high school, 41.9 percent knew, and of those who had completed senior high school, 73.7 percent knew.

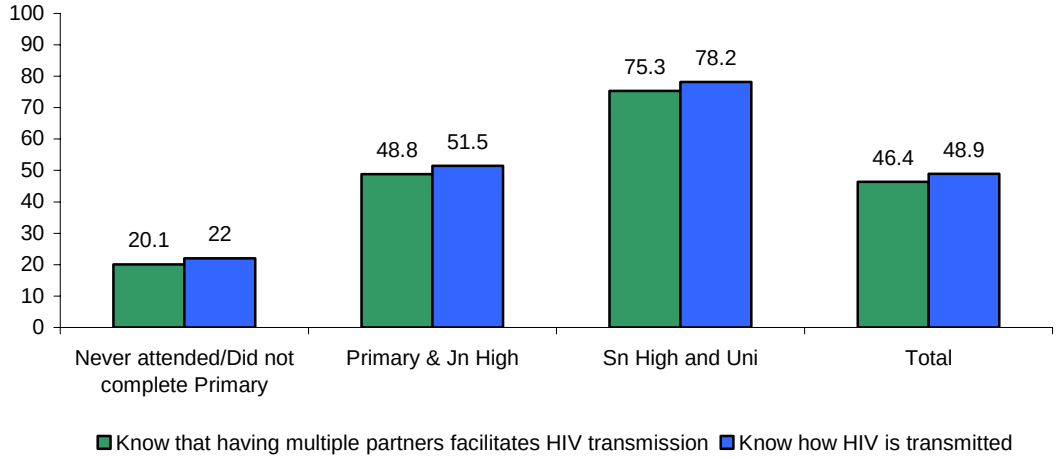
Table 3.2 Percentage of the population who know that AIDS is caused by a virus, according to educational background and sex

Educational Level Completed	Male	Female	Total
(1)	(2)	(3)	(4)
Never attended school/did not finish Primary	15.7	13.1	14.2
Primary and Junior High	41.9	41.9	41.9
Senior High and University	72.1	75.8	73.7
Total	44.0	38.6	41.4

One of the factors in HIV transmission is sex with multiple partners. A total of 46.4 percent of the population knew that having multiple partners could facilitate HIV infection. The percentage of male residents who were aware of this (49.4 percent) was a little higher than for females (43.1 percent). By educational background, only 20.1 percent of those who had never attended school or had not finished primary school knew, while 48.8 percent of those who had completed primary and senior high school and 75.3 percent of those who had completed senior high were aware of this fact.

Figure 3.1

Percentage of the population who know that having multiple partners can facilitate HIV infection and know how HIV is transmitted, by educational background



A total of 48.9 percent of the residents of Papua knew ways by which HIV is transmitted. Again, the percentage of males who had this information was higher than the percentage of females, at 52.3 percent and 45.1 percent respectively. Based on educational background, the percentage of the population who knew how HIV is transmitted was as follows: for those who had never attended school/not completed primary, 22.0 percent; those who had completed primary and junior high, 51.5 percent; and those who had completed senior high school, 78.2 percent.

Less than half of the population, 35.4 percent, knew that using condoms could prevent HIV infection. A higher percentage of males than females were aware of this, at 38.4 percent compared to 32.1 percent. By educational background, of those who had never attended school or had not finished primary, only 10.6 percent knew this; of those who had completed primary and junior high, 36.2 percent knew while 64.4 percent of residents who had completed senior high school knew that condoms can prevent HIV transmission.

Table 3.3 Percentage of the population who know that using a condom can prevent HIV transmission, by educational background and sex

Educational Level Completed	Male	Female	Total
(1)	(2)	(3)	(4)
Never attended school/did not finish Primary	13.8	8.2	10.6
Primary and Junior High	35.7	36.8	36.2
Senior High and University	64.0	64.8	64.4
Total	38.4	32.1	35.4

Being faithful to one partner can be another way of avoiding being infected with HIV. This was known by 45.3 percent of the population of Papua, and knowledge of this fact also correlated positively with the level of education.

Table 3.4 Percentage of the population who know that HIV transmission can be avoided by being faithful to one partner, by educational background and sex

Educational Level Completed	Male	Female	Total
(1)	(2)	(3)	(4)
Never attended school/did not finish Primary	22.5	17.3	19.5
Primary and Junior High	48.1	45.9	47.1
Senior High and University	73.2	75.4	74.2
Total	48.7	41.6	45.3

Avoiding the use of used needles is also a way to avoid being infected with HIV. The percentage of the population who knew this 39.1 percent, with a breakdown by sex of 41.3 percent of male residents and 36.7 percent of female residents. According to educational background, the level of knowledge was as follows: 14.0 percent of those who had never attended school or not completed primary education; 40.3 percent of those who had completed primary and junior high school; and 68.0 of those who had finished senior high school or above.

Table 3.5 Percentage of the population who know that HIV transmission can be avoided by not using used needles, by educational background and sex

Educational Level Completed	Male	Female	Total
(1)	(2)	(3)	(4)
Never attended school/did not finish Primary	15.7	12.7	14.0
Primary and Junior High	39.1	41.9	40.3
Senior High and University	67.0	69.2	68.0
Total	41.3	36.7	39.1

3.2. Misperceptions about HIV/AIDS

Of the residents who had ever had information about HIV/AIDS, 16.1 percent were of the opinion that there were drugs that could cure HIV/AIDS. By sex, this accounted for 15.2 percent of males and 17.3 percent of females. The belief that there are drugs that can cure

HIV/AIDS was held by 14.3 percent of those who had not attended school or not completed primary school; 20.0 percent of those who had finished primary and junior high school; and 13.6 percent of those who had finished senior high school and university.

Table 3.6 Percentage of the population who believe that there are drugs that can cure HIV/AIDS, by educational background and sex

Educational Level Completed	Male	Female	Total
(1)	(2)	(3)	(4)
Never attended school/did not finish Primary	14.5	14.1	14.3
Primary and Junior High	19.7	20.5	20.0
Senior High and University	11.6	16.2	13.6
Total	15.2	17.3	16.1

Of those who had at some point received information about HIV/AIDS, 52.1 percent had misconceptions about HIV transmission. There was no significant difference in the percentages when broken down by sex and educational background.

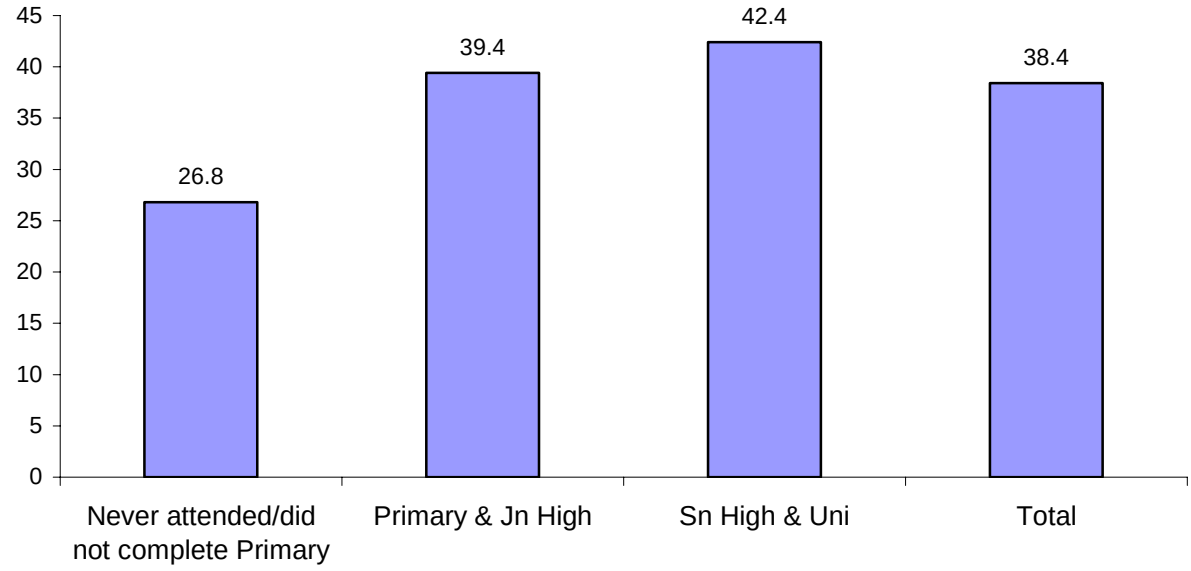
Table 3.7 Percentage of the population who have misconceptions about HIV transmission, by educational background and sex

Educational Level Completed	Male	Female	Total
(1)	(2)	(3)	(4)
Never attended school/did not finish Primary	48.9	43.3	46.0
Primary and Junior High	53.6	55.0	54.2
Senior High and University	52.3	53.9	53.0
Total	52.2	52.0	52.1

A total of 38.4 percent of the population who had received information about HIV/AIDS stated that HIV/AIDS could be avoided by not using eating and drinking utensils used by people with HIV/AIDS. The percentage of male and female residents holding this belief was about the same, at around 38 percent. Based on educational background, the level of knowledge on this matter broke down as follows: 26.8 percent of those who had not been to school or not completed a primary education, 39.4 percent of those who had finished primary and junior high school, and 42.4 percent of those who had completed senior high school and university.

Figure 3.2

Percentage of the population who state that AIDS can be avoided by not eating/drinking from utensils used by people with HIV/AIDS, by educational background



3.3. Sources of Information about HIV/AIDS

Radio and television are the main sources of information about HIV/AIDS for people in Papua. Both these media were cited by more than 50 percent of the population as their source of information about HIV/AIDS.

Table 3.8 Percentage of the population who have received information about HIV/AIDS, by source of information and educational background

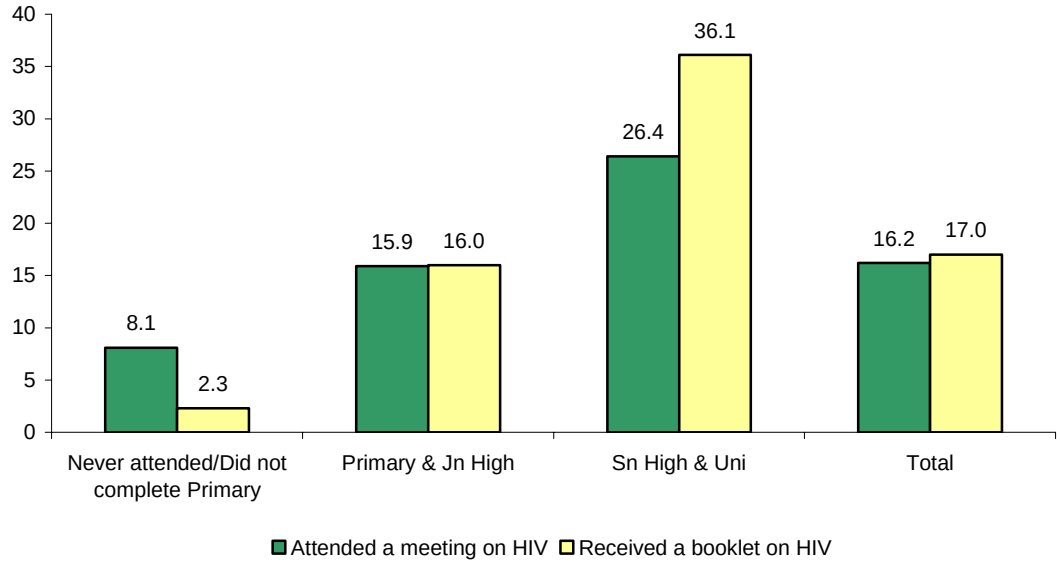
Source of Information	Never attended school/did not finish Primary	Primary and Junior High	SLTA +	Total
(1)	(2)	(3)	(4)	(5)
1. Radio	10.1	26.3	45.2	26.1
2. Television	5.0	24.7	53.9	26.3
3. Health Officer	12.4	22.7	32.3	21.8
4. Newspaper/Brochure	2.1	16.1	42.4	18.9
5. Friend	9.3	18.3	21.4	16.0
6. Religious Leader	9.3	11.9	14.8	11.8
7. Teacher	2.2	13.2	14.2	9.6
8. NGO Officer	4.3	8.3	16.7	9.3
9. Family Member	6.4	8.8	11.6	8.8
10. Customary Leader	3.8	3.9	3.3	3.7
11. Other	0.4	1.9	3.4	1.8

Another important source of information about HIV/AIDS for the people of Papua is health officers, with 21.8 percent of the population obtaining their information about the disease from this source. This is followed by newspapers and brochures at 18.9 percent, friends at 16.0 percent, religious leaders at 11.8 percent, teachers at 9.6 percent, and NGO workers and family members at 9.3 and 8.8 percent respectively. Customary or tribal leaders and other sources accounted for only 3.7 percent and 1.8 percent respectively as sources of HIV/AIDS information.

Only 16.2 percent of the residents of Papua had ever attended a meeting about HIV/AIDS. There was no significant difference in terms of percentage between males and females. However, the higher the level of education, the more likely it was that a resident had attended such a meeting. This was the case for both males and females. Of 16.2 percent who had ever attended a meeting on HIV/AIDS, 9 percent had been to just one meeting, 4 percent had attended 2 meetings, and 3 percent had been to 3 or more.

Some 17.0 percent of the residents of Papua had received booklets, pamphlets or comics about HIV/AIDS. This broke down to 18.6 percent of males and 15.4 percent of females. By educational background, just 2.3 percent of the residents who had not attended school/not completed a primary education had ever received such a booklet/pamphlet/comic, while 16.0 percent of those educated to primary and junior high school level and 36.1 percent of those who had graduated from senior high school or above had received such items.

Figure 3.3
Percentage of the population who have attended a meeting and received a booklet/pamphlet/comic about HIV/AIDS, by educational background



3.4. Stigmatization of PLWHA

About 6.7 percent of the population of Papua personally knew someone who had been infected with HIV/AIDS (PLWHA). By sex, 7.1 percent of male residents personally knew a positive person, slightly higher than the percentage of female residents (6.3 percent). By educational background, the percentages who personally knew a PLWHA were as follows: 2.8 percent of residents who had never attended school or not finished primary school, 6.5 percent of those who had finished primary and junior high and 11.7 percent of those who had completed senior high school or above.

Table 3.9 Percentage of the population who personally know/knew someone infected with HIV/AIDS (PLWHA), by educational background and sex

Educational Level Completed	Male	Female	Total
(1)	(2)	(3)	(4)
Never attended school/did not finish Primary	2.9	2.6	2.8
Primary and Junior High	7.3	5.5	6.5
Senior High and University	10.6	13.2	11.7
Total	7.1	6.3	6.7

The attitudes of people in Papua who knew PLWHA personally were extremely diverse. The highest percentage, 34.3 percent, kept their distance from PLWHA. PLWHA were shunned by a higher percentage of males than females (36.7 percent of males and 31.4 percent of females). By educational background, those who were better educated were less likely to shun PLWHA (57.3 percent of residents who had not attended school/not completed primary school; 43.2 percent of those educated to primary and junior high level; and 21.8 percent of those who had graduated from senior high school and above). This was the case for both males and females.

The second highest percentage, 28.3 percent, treated PLWHA just like any other people. Here, the percentage of females (32.1 percent) was higher than that of males (25.2 percent). By educational background, in general it was apparent that the higher the level of education, the higher the percentage of those who treat PLWHA the same as other people, for both males and females. Thus, 13.6 of those who had not attended school/not completed a primary education and 18.7 percent of those who had finished primary and junior high school treated PLWHA like any other people, while the same was true for 39.0 percent of those educated to the level of senior high school and above.

People who felt sympathy for PLWHA accounted for 20.9 percent while those who gave them special attention accounted for 16.2 percent. In both cases, the percentage of males was generally higher than females. Educational background appeared to have little clear influence on either of these last two indicators.

Table 3.10 Percentage of the population by attitude and behaviour towards PLWHA and educational background

Males

Attitude & Behaviour towards PLWHA	Never attended school/did not finish Primary	Primary and Junior High	Senior High +	Total
(1)	(2)	(3)	(4)	(5)
1. Stay away from them	56.0	44.7	25.2	36.7
2. Treat them the same as other people	7.7	17.7	35.9	25.2
3. Feel sympathy for them	18.3	21.2	19.4	20.0
4. Pay them special attention	18.0	16.5	19.5	18.1
Total	100.0	100.0	100.0	100.0

Table 3.11 Percentage of the population by attitude and behaviour towards PLWHA and educational background

Females

Attitude & Behaviour towards PLWHA	Never attended school/did not finish Primary	Primary and Junior High	Senior High +	Total
(1)	(2)	(3)	(4)	(5)
1. Stay away from them	58.4	40.6	18.3	31.4
2. Treat them the same as other people	18.5	20.4	42.2	32.1
3. Feel sympathy for them	17.3	25.6	22.0	22.1
4. Pay them special attention	5.9	13.5	16.6	13.8
Total	100.0	100.0	100.0*)	100.0

**) 0.9 percent did not respond*

Table 3.12 Percentage of the population by attitude and behaviour towards PLWHA and educational background

Males + Females

Attitude & Behaviour towards PLWHA	Never attended school/did not finish Primary	Primary & Junior High	Senior High +	Total
(1)	(2)	(3)	(4)	(5)
1. Stay away from them	57.3	43.2	21.8	34.3
2. Treat them the same as other people	13.6	18.7	39.0	28.3
3. Feel sympathy for them	17.7	22.8	20.6	20.9
4. Pay them special attention	11.4	15.4	18.1	16.2
Total	100.0	100.0	100.0*)	100.0

**) 0.4 percent did not respond*

4

Sexual Behaviour

4.1 Sexual Relationships with a High Risk of HIV/AIDS Transmission

4.1.1 Sex with Non-Permanent Partners within the Last Year

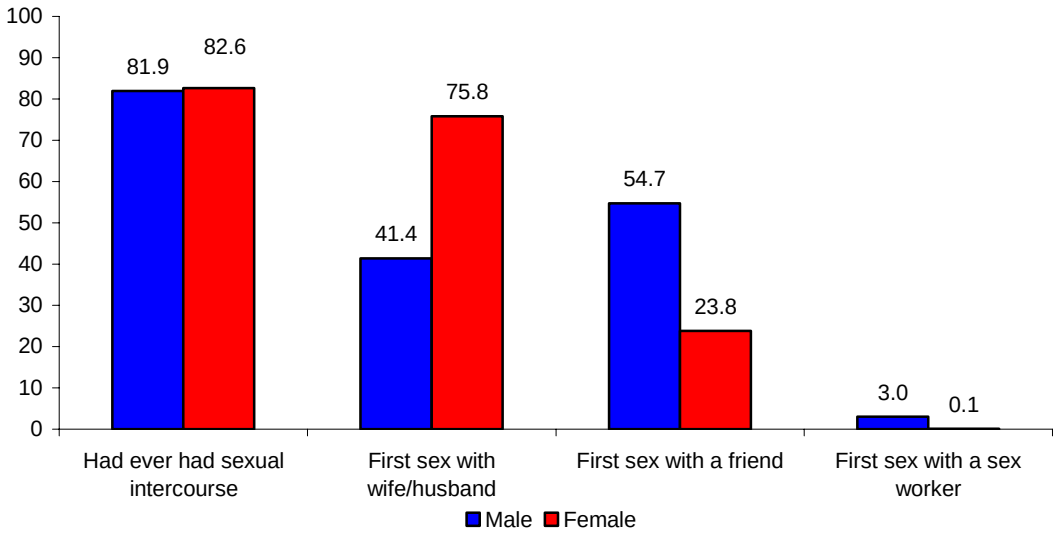
Risky sexual behaviour can lead to a person becoming infected with HIV. One way to avoid being infected is to only have sex with one partner. The sexual behaviour of a minority of the population in Papua tends to put them at risk of being infected with the virus. This is reflected in the fact that there are residents who have sex with non-permanent partners, who have more than one sexual partner or have sex with payment involved.

Around 82 percent of the population in Papua had had a sexual relationship. The average age at first sex of the population in Papua was 19 years old. For females, the age at first sex was lower than for males, at 18.8 years compared to 19.5 years.

A total of 58.1 percent of the residents said that their first sexual partner was their husband or wife, while around 40 percent had had their first sex with a girlfriend or boyfriend, and 1.6 percent with a sex worker. The difference between male and female residents with regard to their first sexual partner was very significant. Around 41 percent of males had experienced their first sex with their spouse, while for women the percentage was 76 percent.

Figure 4.1

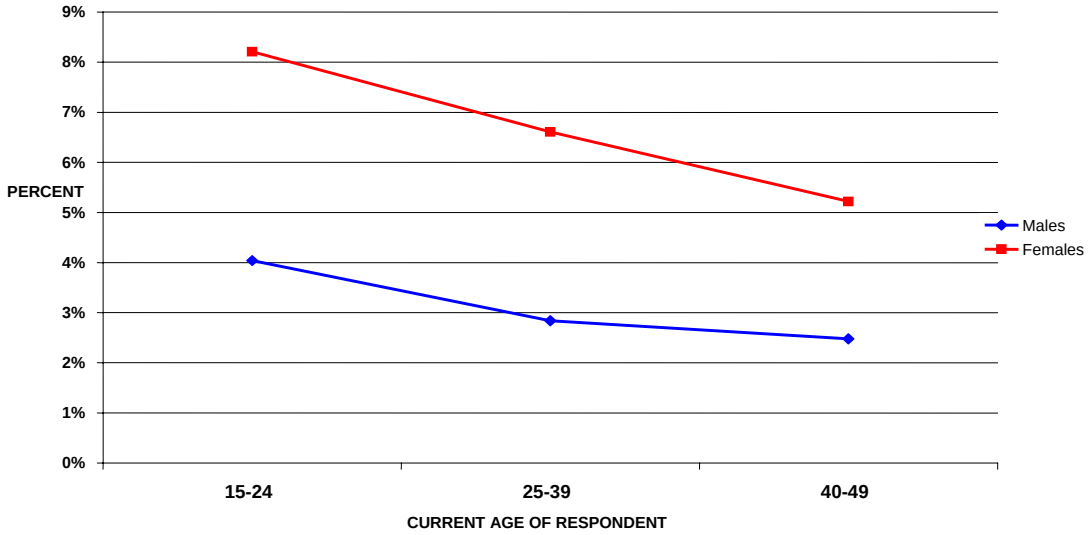
Percentage of the population who had had sexual intercourse, by first sex and sex



More of the population aged 15-24 years had experienced first sex before reaching the age of 15 compared to residents in the older age groups (see Figure 4.2). This trend was much more pronounced among the female population than among the male population.

Figure 4.2

Percentage of the population of Papua who experienced first sex before the age of 15, by sex and age group

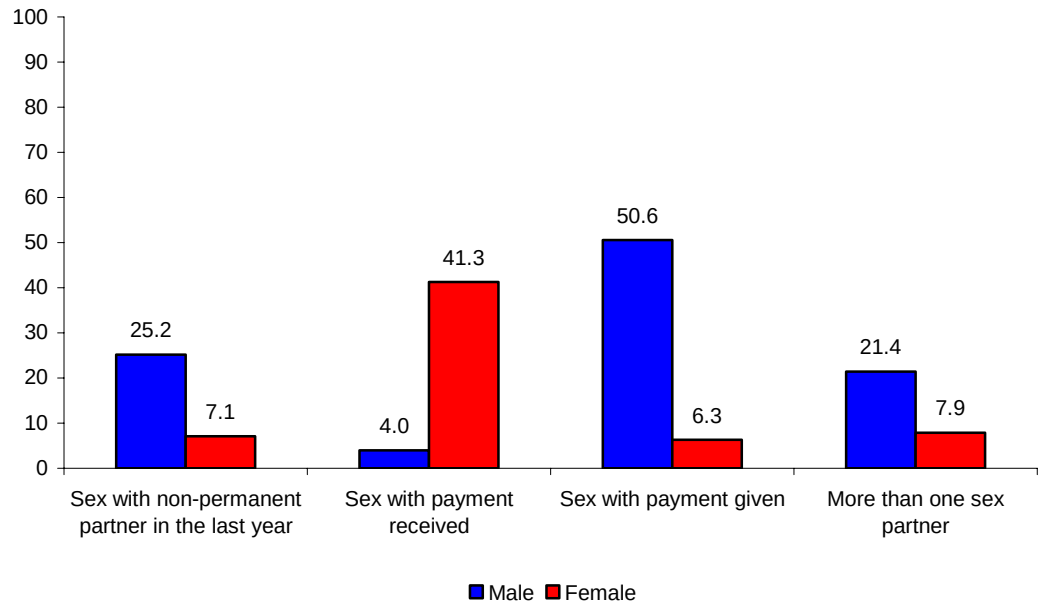


A total of 16.4 percent of the population of Papua had had a sexual relationship with a non-permanent partner in the last year. Some 25.2 percent of male residents had had sex

with a non-permanent partner, compared to 7.1 percent of females. More than 20 percent of male residents reported having more than one sex partner in the last year, while for female residents the total was only around 8 percent.

Figure 4.3

Percentage of risky sexual behaviour, by sex



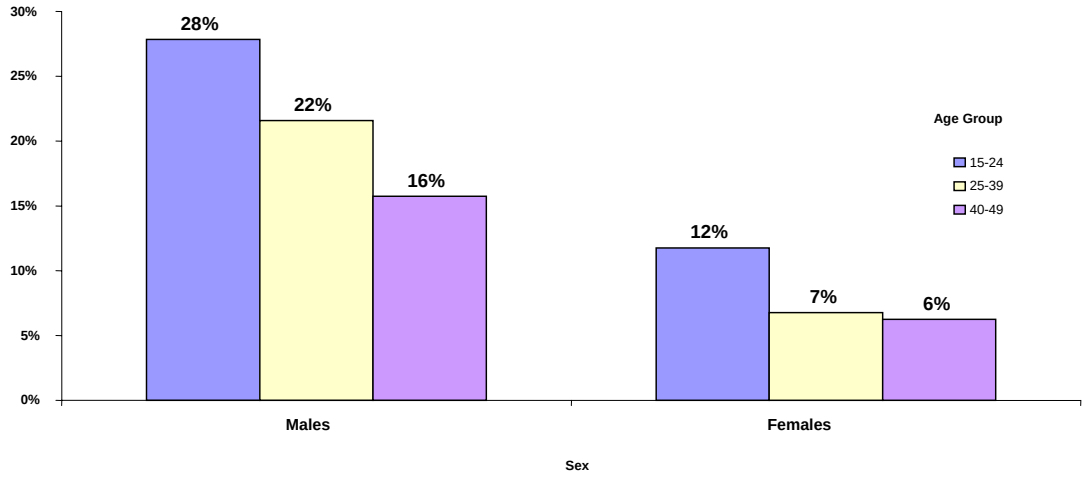
The practice of having sex with payment involved could be a driver of HIV transmission because it entails sex with multiple partners. Sex for payment is sex with a non-permanent partner accompanied by the payment or receipt of some sort of compensation, whether in the form of goods or money.

In the last year, 41.2 percent of those who had had sex with a non-permanent partner had made a payment to their sex partner, and 11.9 percent had received a payment from their sex partner. For males, this broke down to 50.6 percent who made a payment to their sex partner and 4.0 percent who received a payment. Of the female residents, 6.3 percent had made a payment to their sex partner and 41.3 percent had received payment.

Among the younger population of Papua it was apparent that a higher percentage have multiple sex partners compared to older residents, particularly among males (see Figure 4.4).

Figure 4.4

Percentage of the population who have sex with multiple partners, by sex and age group



4.1.2 Sex in Customary Celebrations and Sequential Sex

Customary festivals or rituals (among them Bakar Batu and Emaida) are popular and well attended by the people of Papua. More than 25 percent of the male residents of Tanah Papua had attended a traditional cultural event in the last year, and around 17 percent of females had done the same.

In the survey, respondents were asked about having sex while attending customary events. This question was aimed at those who had had sex with a non-permanent partner in the last year. A total 34.3 percent of the population of Papua who had had sex with a non-permanent partner in the last year reported that it had occurred while they were at a customary event (30.8 percent of males and 56.1 percent of females).

4.1.3 Sequential Sex

The results of a study conducted by Cendrawasih University-Jayapura[1] indicate that a proportion of the population of Papua engage in the practice of sequential sex (*editor*: or for some known as 'Queue Sex'). This is a high-risk practice because it involves multiple sexual partners. This survey also asked about sequential sex, but the question was directed only to respondents who admitted to having had sex with a partner other than their permanent partner in the last year. Around 5.4 percent of male residents had engaged in sequential sex in the last year, while 1.7 percent of females had experience the same.

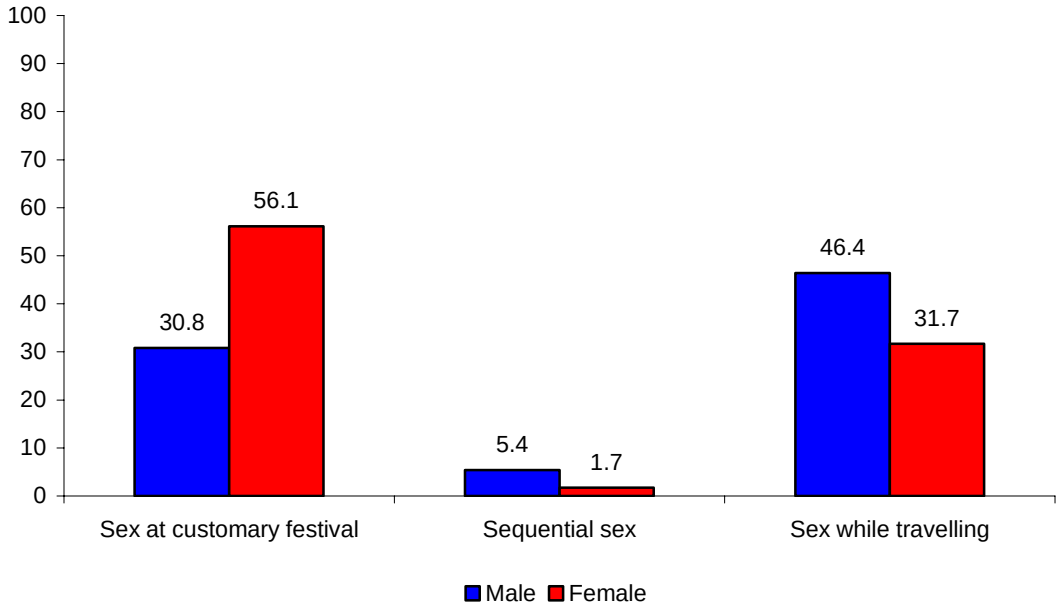
[1] Jack Morin: Figurean Perilaku Seksual Umum Masyarakat Papua, Jayapura 2006

4.1.4 Sex while Travelling to Other Areas

Travelling between regions or cities opens up possibilities for sex with a non-permanent partner. The question about sex while travelling out of the region was also directed at respondents who had had sex with a non-permanent partner in the last year. Around 44 percent of these respondents had had sex with a non-permanent partner when travelling out of town/out of the area. For women, the percentage was lower, at 31.7 percent, compared to 46.4 percent of men.

Figure 4.5

Percentage of the population who had sex at customary festivals, sequential sex and sex while travelling

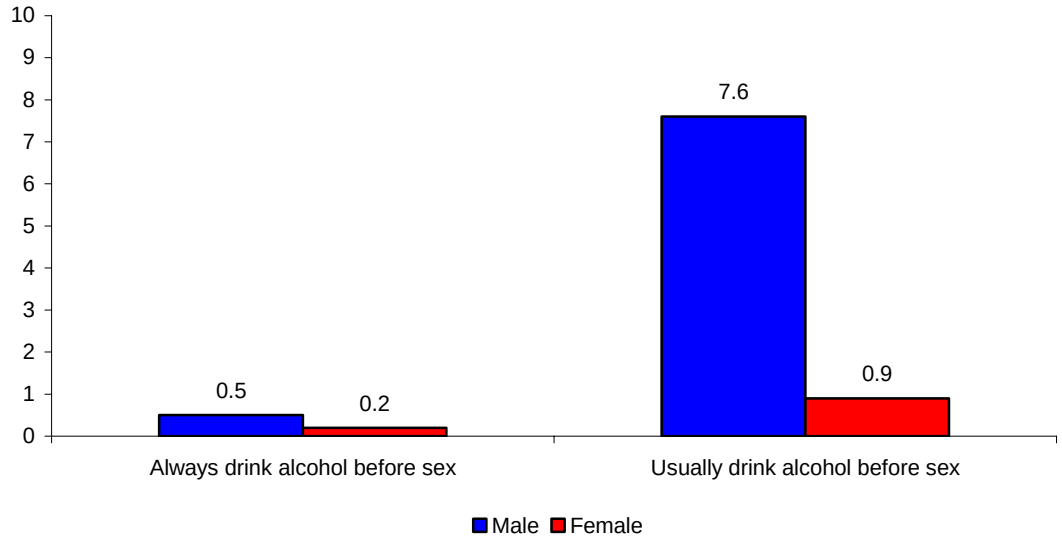


4.1.5 Drinking Alcohol Before Sex

Respondents who had had sexual intercourse within the last year were also asked about alcohol consumption. Only 13.6 percent of the population of Tanah Papua drink alcohol before having sex. The percentage of male residents who usually consumed alcoholic beverages prior to sex was much higher than the figure for female residents, namely 7.6 percent compared to 0.9 percent. At the same time, the percentage of those who always drank alcoholic drinks before having sex was below 1 percent, for both males (0.5 percent) and females (0.2 percent).

Figure 4.6

Percentage of the population who consume alcohol before having sex

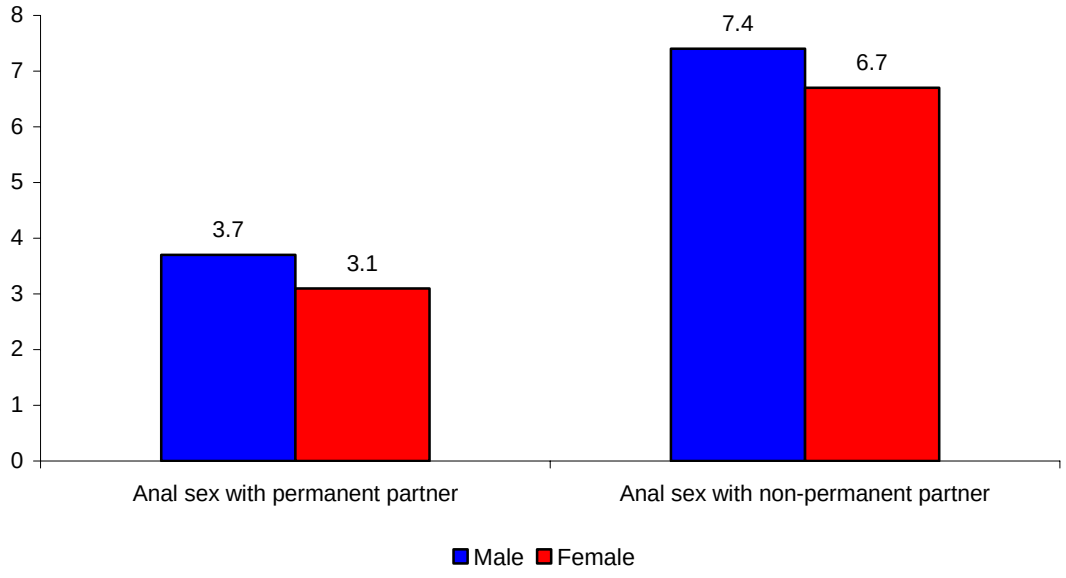


4.1.6 Anal Sex

Anal sex, whether with a permanent partner or a non-permanent partner, is a risky sexual practice that can lead to infection with the HIV virus if condoms are not used. The percentage of the male population in Papua who engage in anal sex with a permanent partner was 3.7 percent. The percentage was almost the same for female residents, at 3.1 percent. Meanwhile, some 7.4 percent of male residents and 6.7 percent of female residents engaged in anal sex with a non-permanent partner.

Figure 4.7

Percentage of the population who engage in anal sex



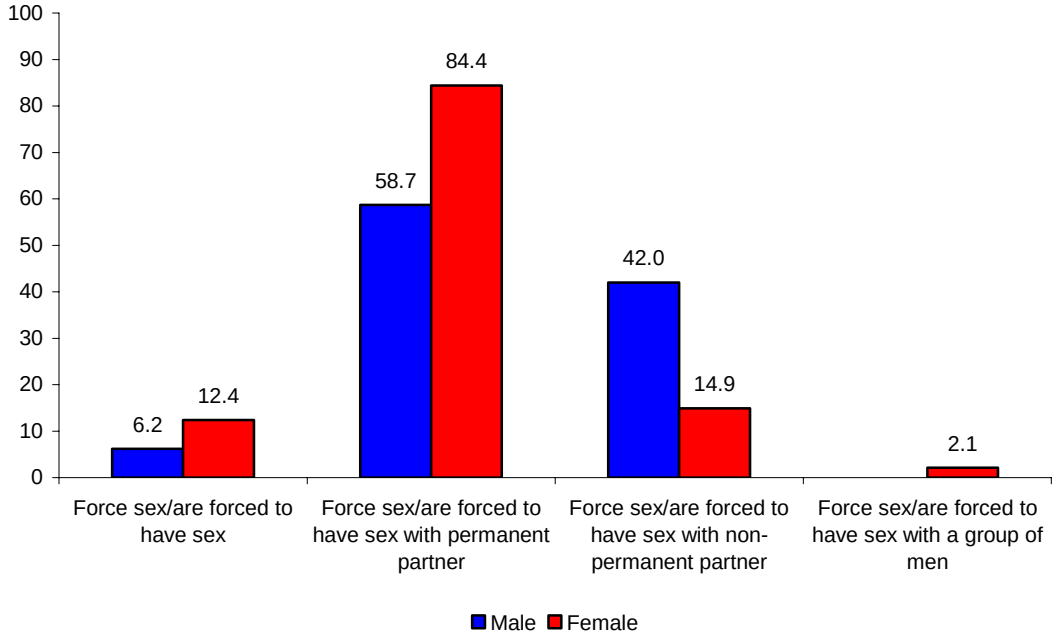
4.2 Sexual Violence

4.2.1 Coercive Sex

Of residents who had had sexual intercourse during the last year, 9.2 percent had had sex with some element of coercion. A total of 6.2 percent of males had used coercion in sex, while 12.4 percent of female residents reported that they had experience of being forced to have sex. Of these females, 84.4 percent had been coerced by their permanent partner, 14.9 percent by a non-permanent partner, and 2.1 percent by a group of males.

Figure 4.8

Percentage of the population who force/are forced to have sex



5

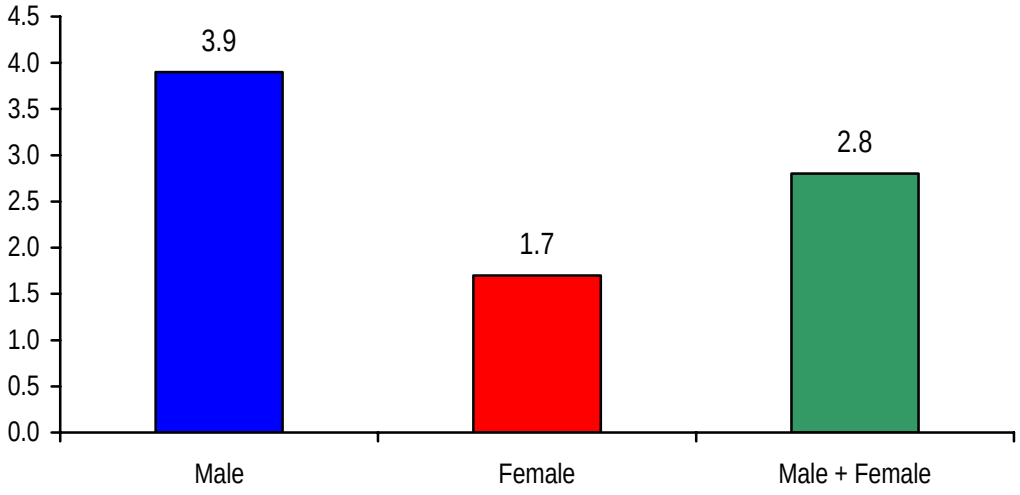
Condom Use

Apart from abstaining from sex or being faithful to one partner, another way of protecting oneself against HIV infection is to always use a condom during sex.

5.1 Condom Use at Last Sex

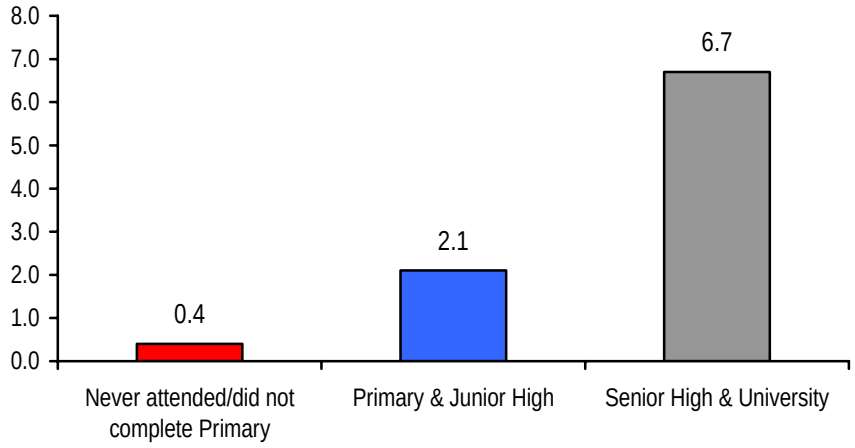
The level of condom use during sex is very low. Data on condom use at the last sex, without distinguishing between type of sexual relationship (with a permanent partner, non-permanent partner, or with payment involved), indicate that just 2.8 percent of the population of Papua use condoms. Among males the figure is 3.9 percent, while among females it is 1.7 percent (Figure 5.1)

Figure 5.1
Percentage of the population who used a condom at last sex, by sex



By educational background, the percentage of condom use at the last sex among residents who were educated to senior high school level or above was 6.7 percent, while among those who had completed primary or junior high it was just 2.1 percent. Among residents who had never attended school or not completed primary school it was very low indeed, at 0.4 percent (Figure 5.2).

Figure 5.2
Percentage of the population who used a condom at last sex, by educational background



5.2 Condom Use during Sex with a Permanent Partner

Sex with a permanent partner is considered to be safer from the point of view of risk of infection with a genital disease than sex with non-permanent partners. Nevertheless, the use of condoms during sex is still recommended.

Table 5.1 Percentage of the population who used a condom during sex with a permanent partner in the last month, by educational background and sex

Educational Background	Male	Female	Male + Female
(1)	(2)	(3)	(4)
Never attended school/ Did not complete Primary	3.1	2.3	2.7
Primary and Junior High	10.3	0.0	6.1
Senior High and University	25.4	20.6	24.0
Total	11.7	4.2	8.4

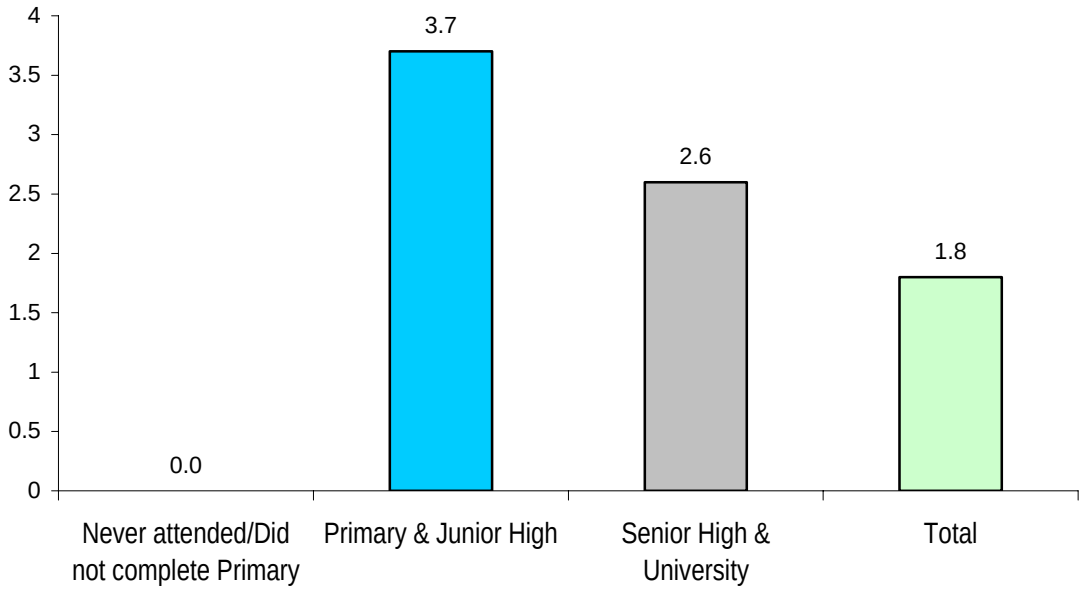
A total of 8.4 percent of the population reported using a condom during sex in the last month. There was a tendency for higher levels of education to correlate to a higher percentage of condom use: 24.0 percent of residents who had completed senior high school and university used a condom in the last month, while among those who graduated from primary and junior high school and those who never went to school or did not finish primary school, the figures were 6.1 percent and 2.7 percent respectively.

By sex, there was a tendency for condom use to be higher among males than among females, at 11.7 percent compared to 4.2 percent.

Figure 5.3 shows that only 1.8 percent of the population of Papua always used a condom during sex with their permanent partner in the last month. A total of 2.6 percent of those who graduated from senior high school or university and 3.7 percent of those who finished primary and junior high school reported always using a condom, while among residents who did not attend school or did not compete a primary education, no-one reported using a condom consistently with their permanent partner in the last month.

Figure 5.3

Percentage of the population who always used a condom during sex with a permanent partner in the last month, by educational background



5.3 Condom Use during Sex with Non-Permanent Partners

A total of 17.9 percent of the residents of Papua used a condom during sex with a non-permanent partner in the last month: 17.9 percent of males and 17.8 percent of females (Table 5.2). Compared to the percentage of condom use with a permanent partner, as describe above, the level of condom use during sex with a non-permanent partner was relatively high.

Table 5.2 also shows that the percentage of condom use during sex with a non-permanent partner among residents educated to senior high and university level was far above the percentage of condom use among those with lower levels of education, at 49.8 percent for those who completed senior high school and university, compared to 10.9 percent of those who finished primary and junior high, and 13.0 percent of those who either never attended school or did not finish primary school.

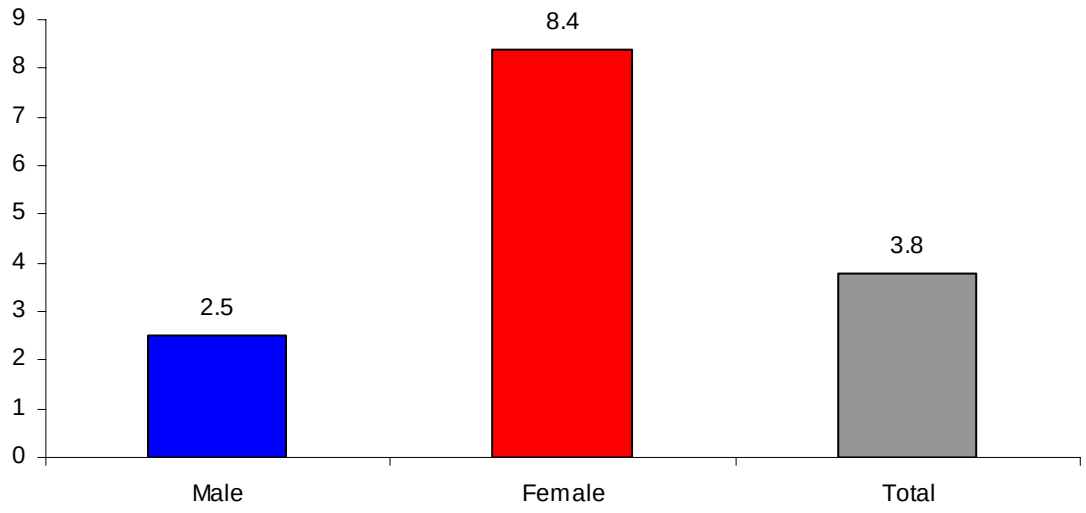
Table 5.2 Percentage of the population who used a condom during sex with a non-permanent partner in the last month, by educational background and sex

Educational Background	Male	Female	Male + Female
(1)	(2)	(3)	(4)
Never attended school/ Did not complete Primary	18.6	0.0	13.0
Primary and Junior High	11.5	0.0	10.9
Senior High and University	39.7	68.0	49.8
Total	17.9	17.8	17.9

Figure 5.4 shows the percentage of the population who used a condom every time they had sex with a non-permanent partner during the last month, i.e. 3.8 percent. Among females, consistent condom use was relatively high at 8.4 percent; while among males it was only 2.5 percent.

Figure 5.4

Percentage of the population who always used a condom during sex with a non-permanent partner in the last month, by sex

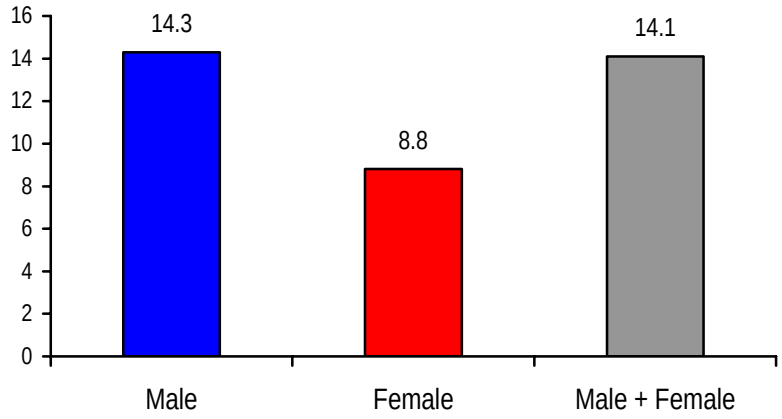


5.4 Condom Use during Sex for Payment

A total of 14.1 percent of residents who had sex involving payment used a condom. Condom use among males was much higher than among females, at 14.3 percent compared to 8.8 percent.

Figure 5.5

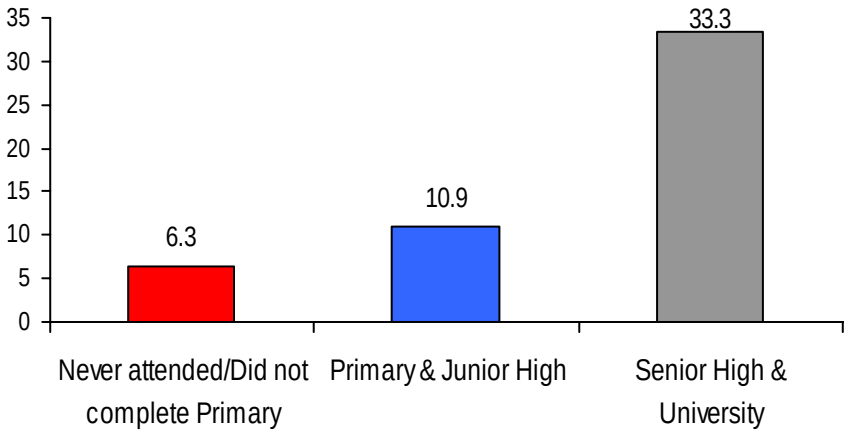
Percentage of the population who use a condom during sex involving payment, by sex



The level of condom use during sex where payment is involved correlated positively with the level of education attained. Only 6.3 percent and 10.9 percent, respectively, of residents who never attended school/did not complete primary school and residents who finished primary and junior high school used a condom in such instances, whereas 33.3 percent of those who had graduated from senior high school and university did so (Figure 5.6).

Figure 5.6

Percentage of the population who use a condom during sex involving payment, by educational background



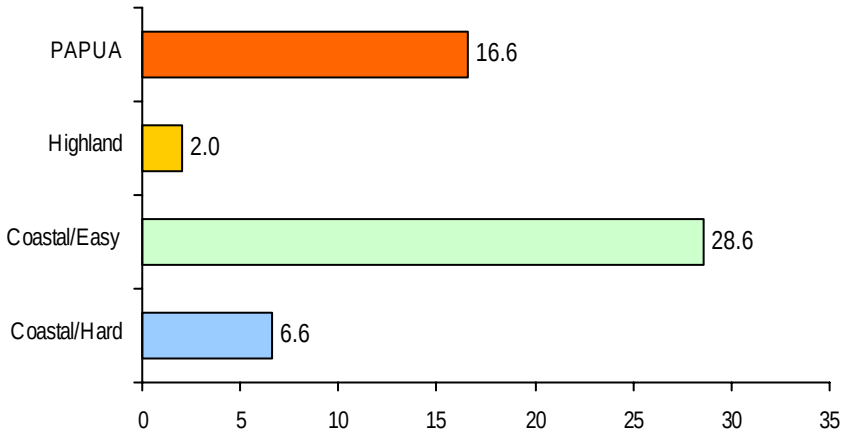
5.5 Access to Condoms

In this section we describe how easy it is for residents to get condoms, as well as residents' knowledge about condom outlets. The explanations are differentiated according to topographic area (highland areas, easily accessible lowlands areas and hard-to-access lowlands areas), while the condom outlets focused on are clinics, pharmacies/medicine shops, kiosks, NGOs and others.

5.5.1 Ease of Obtaining Condoms

A total of 16.6 percent of the population of Papua stated that condoms are easy to obtain. In easily accessible lowlands areas, 28.6 percent of the population reported that condoms were easy to get, compared to 6.6 percent of residents in hard-to-access lowlands areas and 2.0 percent of those in the highlands.

Figure 5.7
Percentage of the population who state that condoms are easily obtainable, by topographic area



5.5.2 Condom Outlets

A total of 21.0 percent of the population of Papua identified pharmacies as an outlet where condoms could be obtained, followed by clinics (10.7 percent), while other outlets (shops/kiosks, NGOs and others) ranged from 1 to 4 percent (Figure 5.8).

Figure 5.8
Percentage of the population who know where to get condoms, by outlet

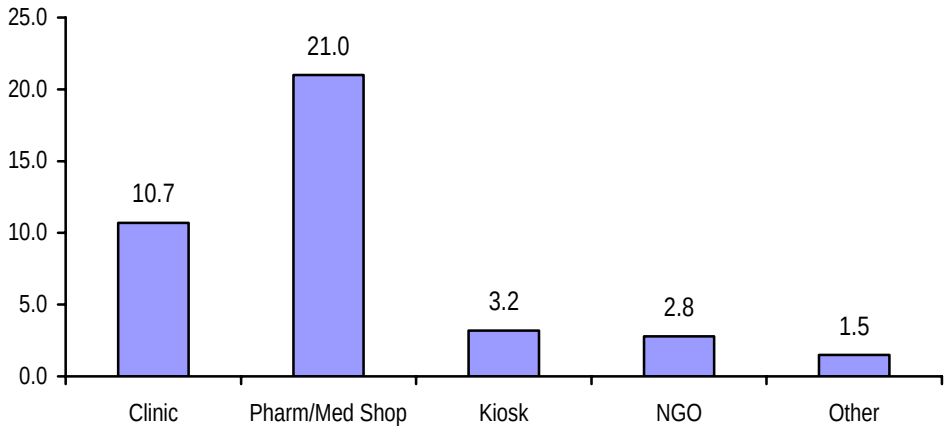
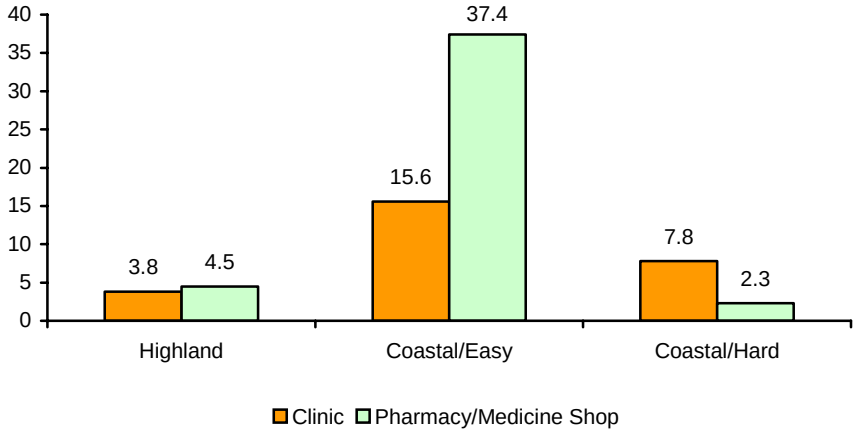


Figure 5.9 shows the percentage of residents who knew that condoms could be obtained from the two best-known outlets, namely clinics and pharmacies/medicine shops, according to topographic area.

Figure 5.9
Percentage of the population who know clinics and pharmacies/medicine shops as condom outlets, by topographic area



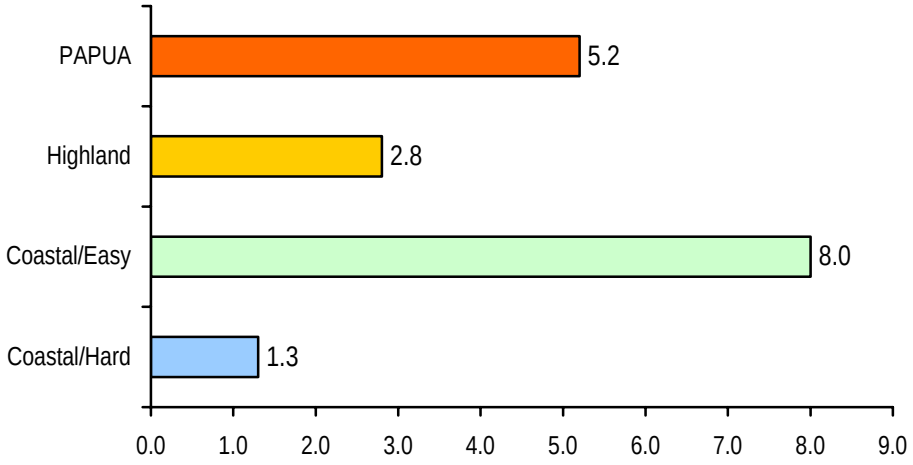
Resident in easily accessible lowlands and highland areas were more familiar with pharmacies/medicine shops as condom outlets than clinics; conversely, in hard-to-access lowlands areas, more residents identified clinics than pharmacies. A total of 37.4 percent of the residents in easily accessible lowlands areas knew that pharmacies/medicine shops were condom outlets, and 15.6 percent knew that condoms could be obtained from clinics. A similar pattern was apparent in highland areas, where a higher percentage of the population identified pharmacies/medicine shops as condom outlets compared to clinics, at 4.5 percent and 3.8 percent respectively. On the other hand, residents in hard-to-access

lowlands areas were more likely to cite clinics as a place to get condoms compared to pharmacies/medicine shops, at 7.8 percent and 2.3 percent respectively.

5.5.3 Knowledge of Condom Prices

A total of 5.2 percent of the population knew the price of condoms. Knowledge of condom prices differed significantly between residents in easily accessible lowlands areas, hard-to-access lowlands areas and highland areas. Figure 5.10 indicates that residents in easily accessible lowlands areas were more likely to know the price of condoms than residents in hard-to-access lowlands and highland areas.

Figure 5.10
Percentage of the population who know the price of condoms, by topographic area



The average condom price cited by residents was Rp 4,400 (four thousand four hundred rupiah). Based on topographic area, the average price of condoms known by residents in easily accessible lowlands areas was three thousand eight hundred rupiah, while in hard-to-access lowlands areas the average price cited was eight thousand three hundred rupiah, and in the highlands six thousand four hundred rupiah.

Table 5.3. Condom prices known by residents, by topographic area

Topographic Area	Condom Price (rupiah) *)	
	Average	Median
(1)	(2)	(3)
Highland	6,400	5,000
Easily Accessible Lowlands	3,800	2,500
Hard-to-Access Lowlands	8,300	5,000
AVERAGE	4,400	3,000

*) Rounded-off figure

Box 5.1

Specifically for this chapter, data are presented according to area of residence (urban or rural areas), to see whether there are any differences between these two area typologies. Methodologically, however, this survey was not designed to make estimates based on urban and rural areas.

Figure 5.11

Percentage of the population who state that condoms are easily obtainable, by area of residence

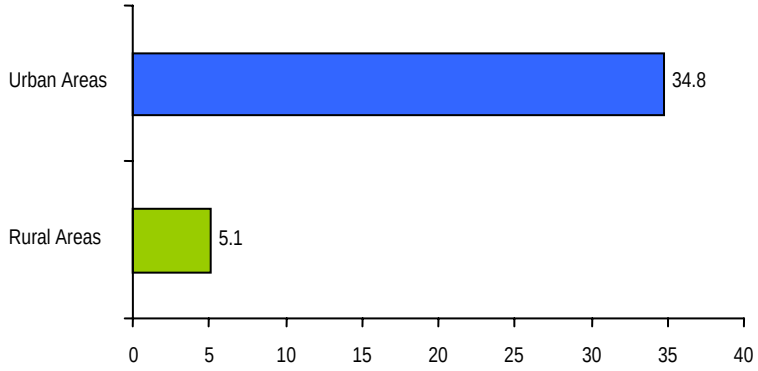
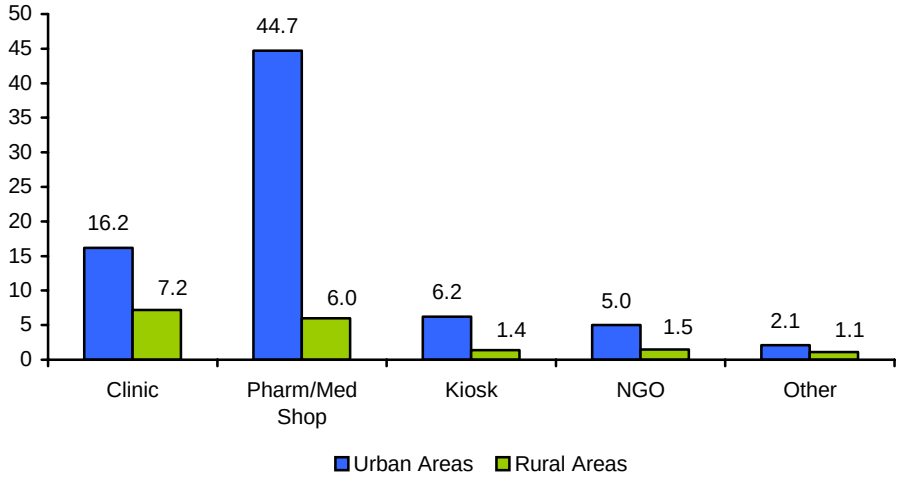


Figure 5.12

Percentage of the population who know where to get condoms, by outlet and area of residence



Box 5.2

Figure 5.13

Percentage of the population who know the price of condoms, by area of residence

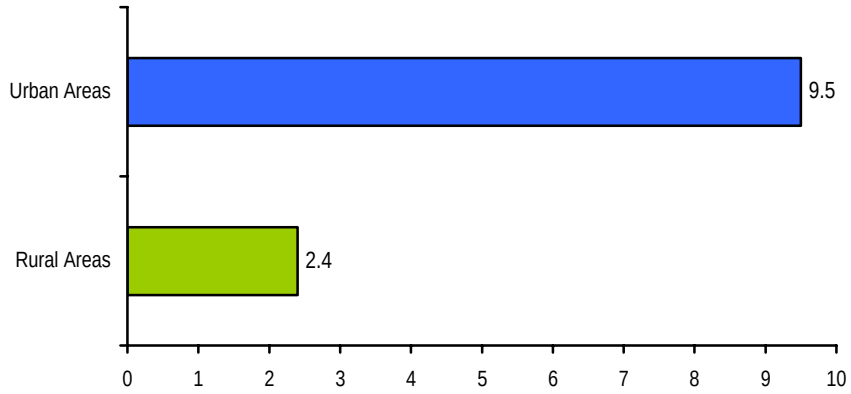


Table 5.4. Condom prices known by residents, by area of residence

Area of Residence	Condom Price (rupiah) *)	
	Average	Median
(1)	(2)	(3)
Urban areas	3,900	3,000
Rural areas	5,600	5,000

*) Rounded off figure

6

Symptoms of Sexually Transmissible Infections (STI)

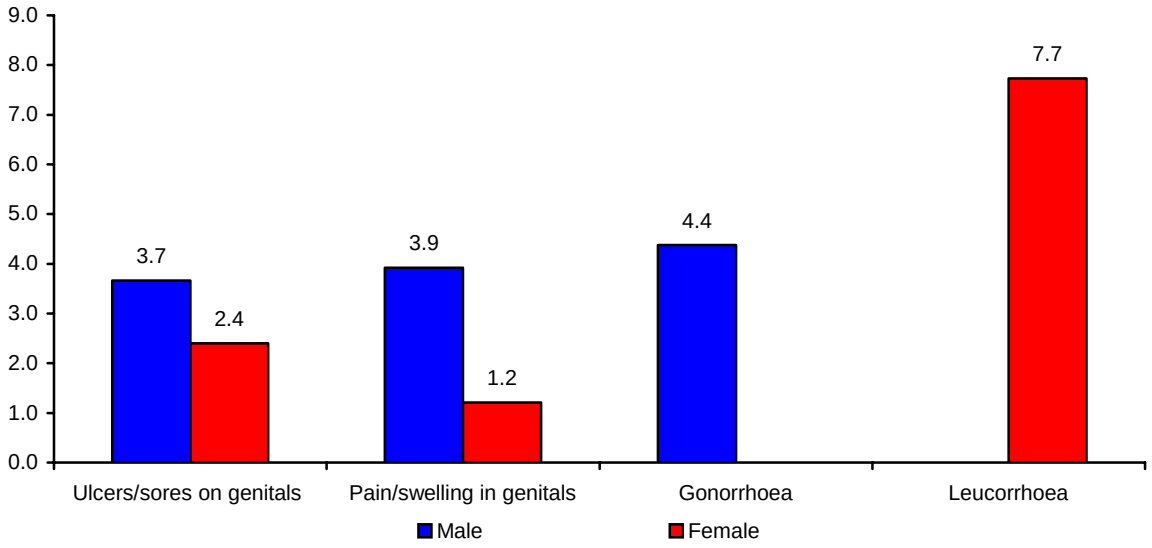
Sexually transmissible infections (STI) are diseases that generally occur in the genitals and are transmitted principally by sexual intercourse. Several STIs can also be transmitted from a mother to her foetus or newborn, as well as through blood contact. Symptoms of STI include the following:

- Abnormal discharge and/or pain in the vagina (leucorrhoea)
- Abnormal discharge and/or pain in the penis
- Ulcers on and around the genitals
- Lower abdominal pain in women
- Swelling of the testes (scrotum)
- Fungal growth
- Conjunctivitis in newborn infants

6.1 Experiencing STI Symptoms

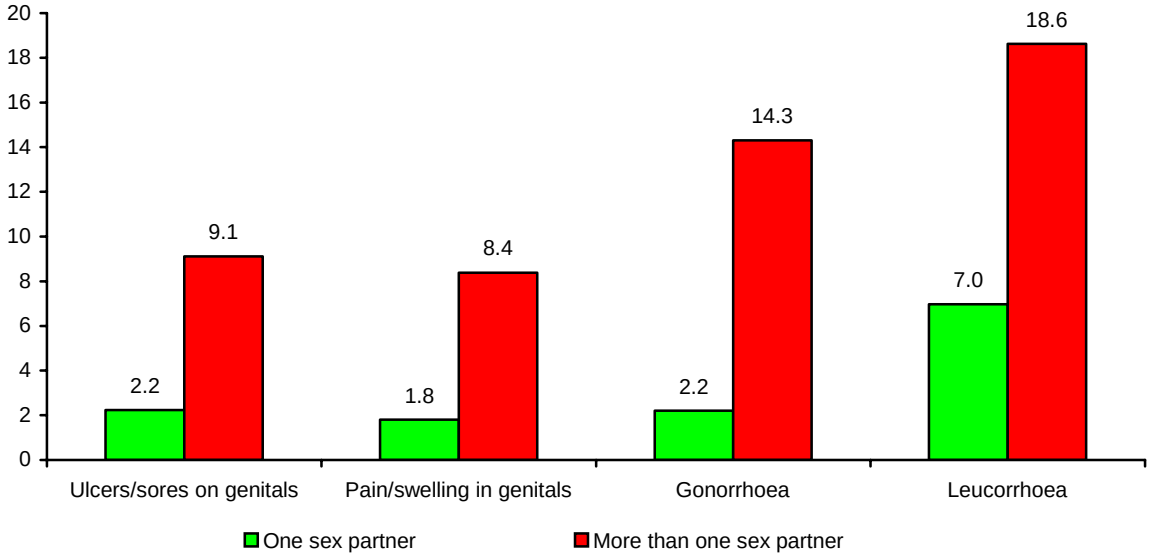
STI is a co-factor that facilitates HIV transmission. This means that people suffering from an STI are more vulnerable to HIV infection, or, in other words, having an STI will make it easier to become infected with HIV. STI symptoms are easily recognizable in both men and women.

Figure 6.1 Percentage of the population, by STI symptoms and sex



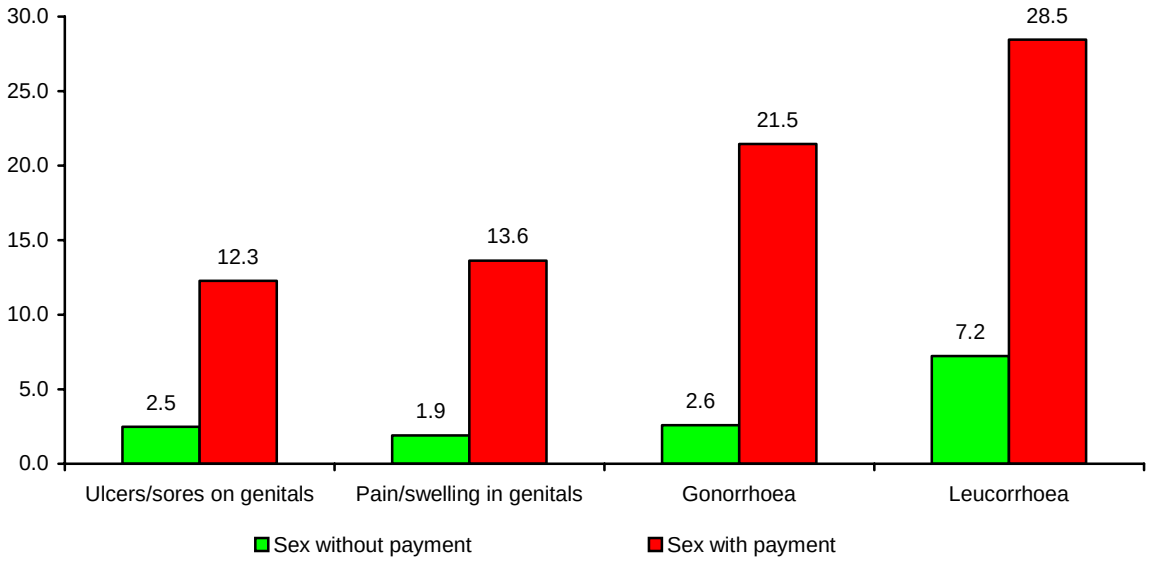
A total of 3.7 percent of the male population experienced ulcers or sores on their genitals, as did 2.4 percent of the female population. For swellings in the genital area, the difference was much more pronounced, at 3.9 percent among males and 1.2 percent among females. Some 4.4 percent of male residents experienced gonorrhoea symptoms, while among the female population 7.7 percent experienced leucorrhoea.

Figure 6.2 Percentage of the population by STI symptoms and number of sex partners



Among residents who had more than one sex partner, the percentage of those who experienced STI symptoms was much higher than among residents who had only one sex partner. The most distinct difference was among the population of males who experienced gonorrhoea symptoms: 2.2 percent of males with one sex partner reported gonorrhoea symptoms, while among those with more than one sex partner, the figure rose to 14.3 percent (see Figure 6.2).

Figure 6.3 Percentage of the population by STI symptoms and engaging in sex with payment



Among male residents who engaged in the practice of giving or receiving payment for sex, 21.5 percent experienced symptoms of gonorrhoea, while 28.5 percent of the female population who had sex involving payment experienced leucorrhoea. A total of 12.3 percent of the population who engaged in sex with payment reported ulcers or sores in the genital area, while among those who did not have sex with payment, 2.5 percent experienced the same symptoms (ulcers/sores).

6.2 STI Treatment-Seeking Behaviour

Although it does not always translate directly into efforts made or steps taken to avoid being infected with STI or HIV, the knowledge of how to avoid getting an STI and where to seek help when afflicted with one is something that everyone should have, especially if they are at high risk.

There are fairly significant differences, based on topographic area, in the kind of treatment sought when experiencing STI symptoms (see Table 6.1).

Table 6.1 Percentage of the population based on actions taken when experiencing STI symptoms, by topographic area

Action Taken When Experiencing STI Symptoms	Highland	Easily Accessible Lowlands	Hard-to-Access Lowlands	Total
(1)	(2)	(3)	(4)	(5)
Seek Treatment from Health Worker	77.0	42.6	20.0	52.1
Self-Treat	5.4	35.3	32.6	23.2
Do Nothing/Do Not Get Treated	14.9	20.0	43.2	21.9
Other (Seek treatment from traditional healer)	2.8	2.0	4.2	2.7
Total	100.0	100.0	100.0	100.0

Of the residents who live in the highlands, 77.0 percent sought treatment from a health worker when they had symptoms of STI, compared to 42.6 percent of those who live in easily accessible lowlands areas, and 20.0 percent of those living in hard-to-access lowlands areas.

Among the residents who experienced STI symptoms, 32.6 percent of those living in hard-to-access lowlands areas and 35.3 percent of those living in easily accessible lowlands areas treated themselves, but only 5.4 percent of those in highland areas did the same.

Table 6.2 Percentage of the population based on reasons for self-treating when experiencing STI symptoms, by topographic area

Reason for Self-Treating When Experiencing STI Symptoms	Highland	Easily Accessible Lowlands	Hard-to-Access Lowlands	Total
(1)	(2)	(3)	(4)	(5)
Ashamed/Embarrassed	56.9	38.2	32.6	40.5
Do Not Get Good Services	2.7	4.6	2.8	3.9
Health Facilities are Hard to Reach	6.0	6.3	28.7	10.2
Others, including “Don’t Know” and “Did Not Respond”	36.9	53.2	38.7	47.8

The main reason for self-treating was feeling ashamed or embarrassed, which accounted for 40.5 percent of those who self-treated. Other reasons were that they could not get good

services (3.9 percent) or that it was difficult to reach health facilities (10.2 percent) (see Table 6.2).

Table 6.3 Percentage of the population based on type of therapy used when experiencing STI symptoms and self-treating, by topographic area

Type of Therapy Used When Experiencing STI Symptoms and Self-Treating	Highland	Easily Accessible Lowlands	Hard-to-Access Lowlands	Total
(1)	(2)	(3)	(4)	(5)
Modern Medicine	74.6	39.3	35.3	44.8
Traditional Medicine	11.4	25.7	12.3	20.8
Amoxicillin	42.3	31.1	18.3	30.7
Supertetra	59.2	13.6	19.8	22.7
Herbal Remedy (*Jamu*)	2.6	25.0	12.3	18.8
Buah Merah	8.8	0.8	0.0	2.0
Other	25.9	42.5	52.2	41.4

The types of therapy used when STI symptoms were experienced and then treated by the patient her/himself are presented in Table 6.3. A total of 74.6 percent of the population in the highlands used modern medicine, including 42.3 percent who used amoxicillin and 59.2 percent who used supertetra. Overall some 44.8 percent of residents who self-treated their STI symptoms used modern medicine, while the use of Amoxicillin and Supertetra accounted for 30.7 percent and 22.7 percent respectively.

Table 6.4 Percentage of the population based on health facilities used when experiencing STI symptoms, by topographic area

Health Facility	Highland	Easily Accessible Lowlands	Hard-to-Access Lowlands	Total
(1)	(2)	(3)	(4)	(5)
Hospital	12.5	24.8	10.6	16.8
Subdistrict/Village Health Centre	76.3	31.9	53.5	58.7
Doctor's Surgery	0.7	26.0	14.7	10.8
Paramedic/Midwife	9.4	16.4	15.1	12.3
Clinic	0.6	1.0	0.0	0.7
Other	0.6	0.0	6.1	0.7
Total	100.0	100.0	100.0	100.0

More than half (58.7 percent) of those who had STI symptoms sought treatment from a subdistrict or village health centre (*Puskesmas/Pustu*). There is a fairly significant

difference between highland and lowlands areas: 76.3 percent of those in the highlands went to a subdistrict/village health centre, while 53.5 percent of those living in hard-to-access lowlands and only 31.9 percent of those in easily accessible lowlands areas did the same. There are also notable differences with regard to seeking treatment from a doctor: 14.7 percent of residents in hard-to-access lowlands areas went to a doctor, compared to 26.0 percent of those in easily accessible lowlands areas and just 0.7 percent of those living in highland areas.

7

Drug Use

As well as through sexual intercourse, HIV can also be transmitted through shared needles. Sharing needles is, in fact, a more "efficient" means of transmission than sex. In general, the pattern of drug use begins with smoking cigarettes and drinking alcohol, which then leads to the use of non-injected drugs, and finally to injecting drugs.

7.1 Drug Use in General

Relatively few residents in Papua use drugs: only 0.8 percent. Among those who live in easily accessible lowlands areas, 1.5 percent use drugs, while in hard-to-access lowlands areas and the highlands drug use is, respectively, 0.2 percent and 0.1 percent.

Table 7.1 Percentage of the population who use drugs, by type of drug and topographic area

Type of Drug	Highlands	Easily Accessible Lowlands	Hard-to-Access Lowlands
(1)	(2)	(3)	(4)
Shabu-shabu	0.0	8.4	50.0
Cocaine	0.0	2.1	0.0
Putaw/Heroin	0.0	2.1	0.0
Ganja/Marijuana	100.0	51.8	0.0
Pil Koplo/Ecstacy	0.0	16.8	50.0

Papuan residents who live in highland areas only use ganja/marijuana; 50.0 percent of those in hard-to-access lowlands areas use *shabu-shabu* (crystal methamphetamine), and 50.0 percent use *pil koplo* ("stupid pills") or ecstasy, while 51.8 percent of those living in easily accessible lowlands areas use ganja or marijuana.

7.2 Injection Drug Use

Of the 1.5 percent of residents of Papua who live in easily accessible lowlands areas who use drugs, 4.2 percent report that they inject drugs. One of the factors that accelerates HIV transmission among the injection drug user community is the practice of injecting together or sharing needles. The results of the IHBS2006 indicate that among the residents of Papua who admit to using injection drugs, none are injecting together or sharing needles.

8

Voluntary Counselling and Testing (VCT) Services

Benefits of VCT

A blood test is the only way to find out whether or not someone has been infected with HIV.

Table 8.1 Percentage of the population who know where to get tested, by topographic area and educational background

HIV Test	Topographic Area				Educational Background			
	Highland	Lowlands/Easy	Lowlands/Hard	Total	Never attended/ Did not complete Primary	Primary & Junior High	Senior High & University	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Knows Test Site	11.6	38.9	17.4	31.0	10.6	22.4	46.5	31.0
Knows Test Site at a Private Lab	30.2	23.0	34.7	24.4	14.4	28.0	23.9	24.4
Knows Test Site at PMI	19.2	19.0	18.9	19.0	12.6	19.0	19.6	19.0
Knows Test Site at a hospital	80.5	90.1	88.7	89.4	78.1	88.8	90.67	89.4
Knows Test Site at a public health centre	60.0	18.1	44.7	23.0	53.4	28.2	18.0	23.0
Knows Test Site at an NGO	25.4	8.9	24.1	11.2	8.4	11.5	11.4	11.2
Knows Test Site somewhere else	0.0	2.4	2.5	2.3	0.0	4.2	1.7	2.3

A total of 31.0 percent of the population of Papua know where to get an HIV test. According to topographic area, far more residents who live in easily accessible lowlands areas know this compared to those who live in hard-to-access lowlands or highland areas, with percentages of 38.9 percent, 17.4 percent and 11.6 percent respectively. By educational background, the higher the level of education, the grater the knowledge about HIV testing sites. This is indicated by the difference in the percentage of those who know about HIV test sites between educational level, that is, 10.6 percent for those who have never attended school or did not complete primary school, 22.4 percent for those who completed primary and junior high, and 46.5 percent for those who finished senior high school and university.

Of the population who know where to get tested, 89.4 percent know that they can take a test at a hospital. The top three test sites known by the population are hospitals, private laboratories and *Puskesmas* or public health centres, with percentages, respectively, of 89.4 percent, 24.4 percent and 23.0 percent.

Table 8.2 Percentage of the population who have had an HIV test, have been tested voluntarily, and have received the test result, by topographic area and educational background

Remarks on HIV Test	Topographic area				Educational Background			
	Highland	Lowlands/Easy	Lowlands/Hard	Total	Never attended/ Did not complete Primary	Primary & Junior High	Senior High & University	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Had an HIV test	22.9	7.4	9.2	9.2	17.0	7.7	8.6	9.2
Took test voluntarily	59.1	68.4	46.5	62.8	52.4	65.8	67.4	62.8
Received test results	9.8	34.2	13.0	24.2	7.5	21.3	37.5	24.2

A total of 9.2 percent of the population of Papua has been tested for HIV. By topographic area, the highest percentage of residents that have had an HIV test is in the highland areas, at 22.9 percent. In easily accessible lowlands areas and hard-to-access lowlands areas, the figures are 7.4 percent and 9.2 percent respectively. By educational background, the percentage of the population that has been tested for HIV is actually higher among those who have never been to school or have not completed primary school compared to those who have completed primary and junior high, or even senior high and university, at 17.0 percent compared to 7.7 percent and 8.6 percent. Of the 9.2 percent who have had an HIV test, 62.8 percent were tested voluntarily; however, only 24.2 percent received the results.

Table 8.3 Percentage of the population who have had counselling, by topographic area and educational background

Remarks on Counselling	Topographic area				Educational Background			
	Highland	Lowlands/Easy	Lowlands/Hard	Total	Never attended/ Did not complete Primary	Primary & Junior High	Senior High & University	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Only before the test	71.4	49.2	55.8	53.7	50.1	62.0	48.7	53.7
Only after the test	11.5	2.8	10.3	5.0	14.5	2.7	4.1	5.0
Before and after the test	11.5	46.6	33.9	39.3	28.3	35.3	45.2	39.3

A total of 39.3 percent of the population of Papua had undergone pre- and post-test counselling, while those who had only had pre-test counselling accounted for 53.7 percent, and 5.0 percent had had only post-test counselling. Looking at the pattern of pre- and post-test counselling, it was apparent that the higher the level of education, the higher the percentage who had had counselling both before and after the test.

9

HIV Prevalence in Papua

One of the most important results of the IHBS2006 is the illustration it provides of the rate of HIV transmission in the community. In this chapter we will describe HIV prevalence in Tanah Papua by linking it with various demographic characteristics of the population and risk behaviour.

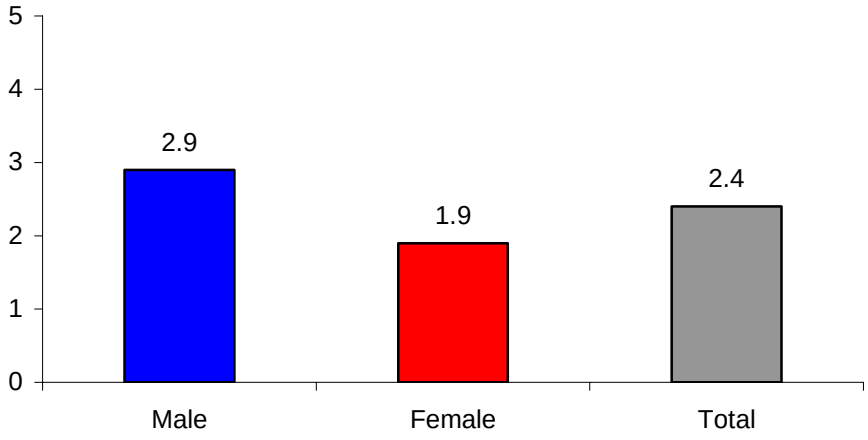
9.1 HIV Prevalence and Sex

HIV prevalence in the population of Tanah Papua is 2.4 percent, which represents a very high rate of transmission compared to estimates of HIV prevalence in various other parts of Indonesia.

HIV prevalence among the male population is 2.9 percent, higher than prevalence among the female population, which is 1.9 percent (see Figure 9.1).

Figure 9.1

HIV prevalence by sex

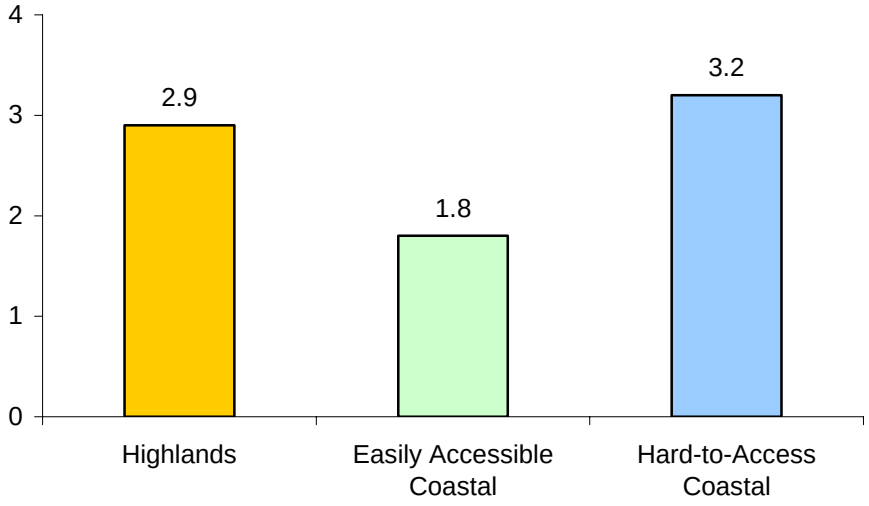


9.2 HIV Prevalence and Topographic Area

The highest HIV prevalence is found in hard-to-access lowlands areas, at 3.2 percent, followed by highland areas at 2.9 percent. The lowest HIV prevalence is found in easily accessible lowlands areas, where it is 1.8 percent.

Figure 9.2

HIV prevalence by topographic area



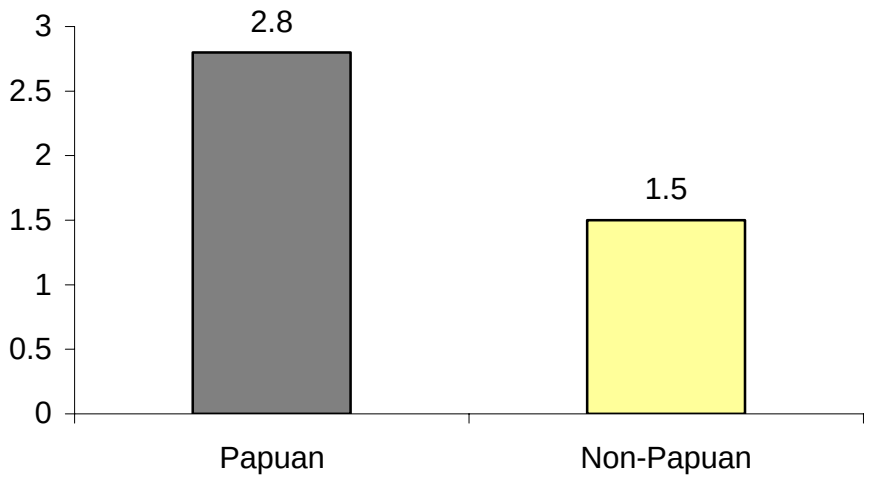
9.3 HIV Prevalence and Ethnicity

HIV prevalence among ethnic Papuans is almost twice as high as prevalence among non-ethnic Papuans, at 2.8 percent compared to 1.5 percent.

Comparing levels of HIV prevalence based on ethnicity does not reflect a difference in vulnerability to HIV based on ethnicity alone. Rather, it reflects differences in the levels of knowledge about prevention and risk behaviour. It is hoped that prevention efforts and health services will reach all residents of Papua who are at risk, particularly where prevalence is higher.

Figure 9.3

HIV prevalence by ethnicity



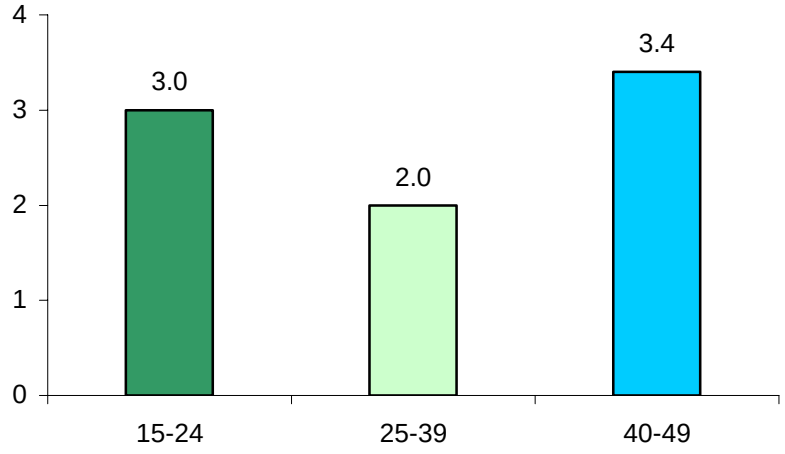
9.4 HIV Prevalence and Age Group

HIV prevalence among residents of Papua aged 40-49 years is 3.4 percent. This figure is higher than in the 15-24 age group (3.0 percent) and the 25-39 age group (2.0 percent).

A more advanced age reflects greater experience of risk behaviour and thus higher exposure to HIV infection, so it is understandable that HIV prevalence is much higher in this age group.

Figure 9.4

HIV prevalence by age group



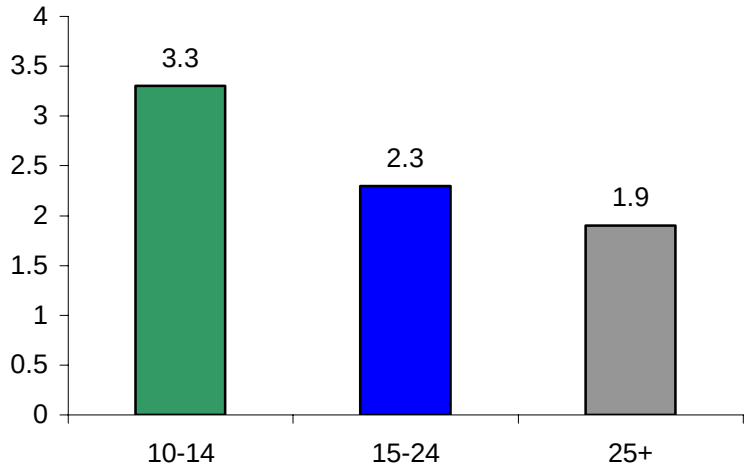
9.5 HIV Prevalence and Age at First Sex

Starting to have sex at an early age can increase the risk of being infected with HIV through sexual transmission because, biologically, younger people are not only more vulnerable but are also influenced by the sex and age of their sex partner.

HIV prevalence among residents of Papua who have their first sexual intercourse between the ages of 10 and 14 years is 3.3 percent, while among those who experienced first sex at between 15 and 24 years it is 2.3 percent, and among those whose first sex was at the age of 25 and above it is 1.9 percent (see Figure 9.5).

Figure 9.5

HIV prevalence by first sex



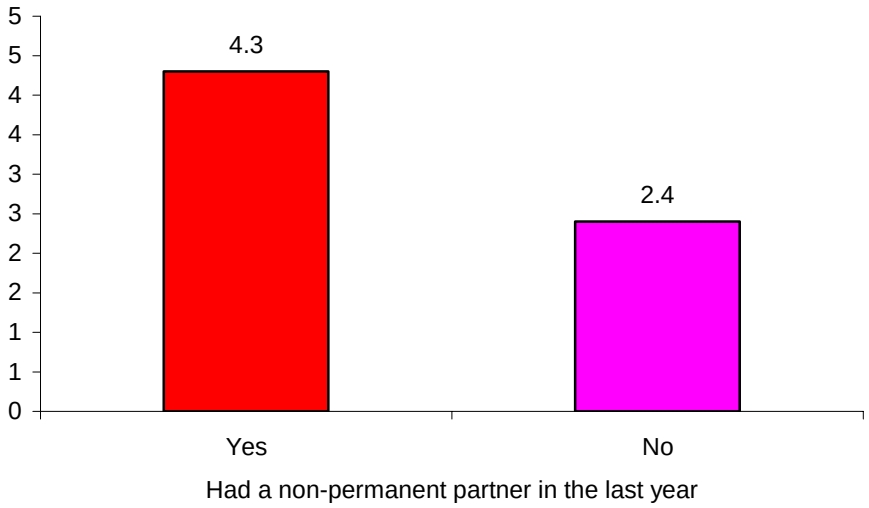
9.6 HIV Prevalence and Non-Marital Partners

HIV prevalence among residents of Papua who have non-permanent partners is 4.3 percent, higher when compared to the figure for residents of Papua who only have a permanent partner, which is 2.4 percent (see Figure 9.6).

The risk of being infected with HIV is definitely higher for those who have non-permanent partners.

Figure 9.6

HIV prevalence by sex partner

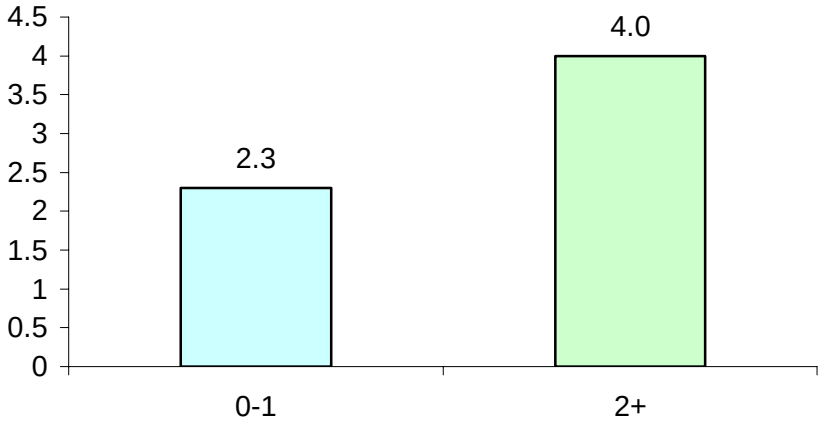


9. 7 HIV Prevalence and Number of Partners

In general, having multiple sex partners and frequently changing partners will increase the risk of infection. HIV prevalence among residents with multiple sex partners (2 or more) is higher, at 4.0 percent compared to 2.3 percent among those who have only one sex partner or do not have a sex partner (see Figure 9.7).

Figure 9.7

HIV prevalence by number of sex partners in the last year

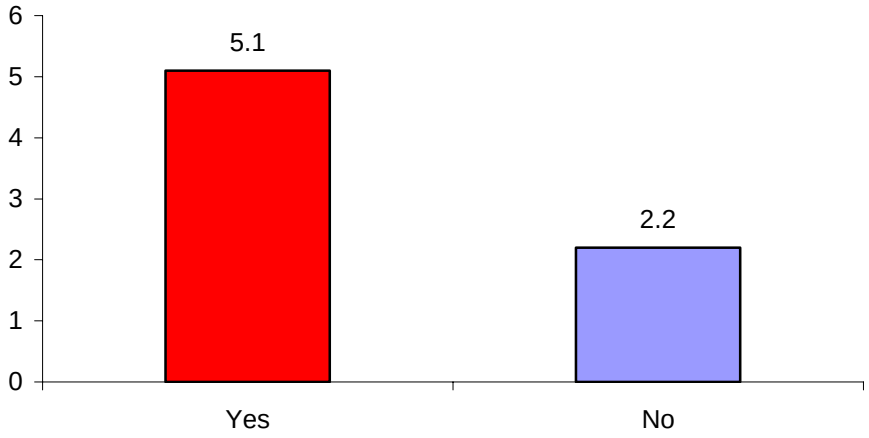


9. 8 HIV prevalence and Sex with Payment

HIV prevalence is higher, at 5.1 percent, among residents who have non-permanent partners and have sex where payment is involved. This level of prevalence is twice as high as among those who have sex without payment involved.

Figure 9.8

HIV prevalence by sex for payment



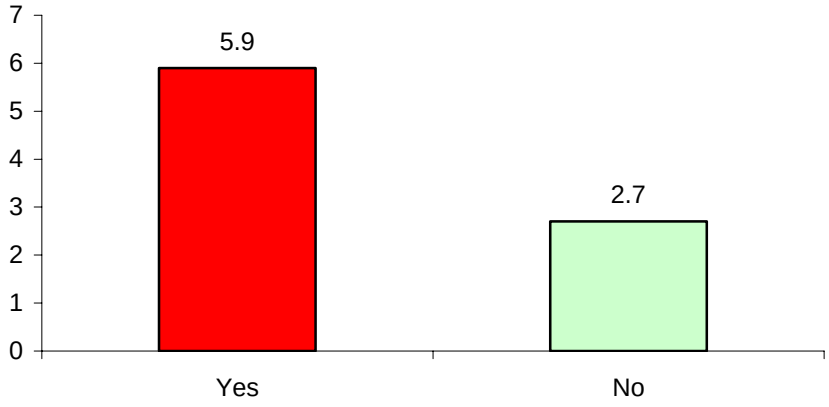
9.9 HIV Prevalence and STI History

A history of STI in a person can indicate that they not only have sex with several partners (possibly also with payment involved), but also indicates—almost certainly—that they do not use a condom each time they have sex.

HIV prevalence among those with a history of STI is twice as high as among the population who have no STI history.

Figure 9.9

HIV prevalence by history of STI in the last year



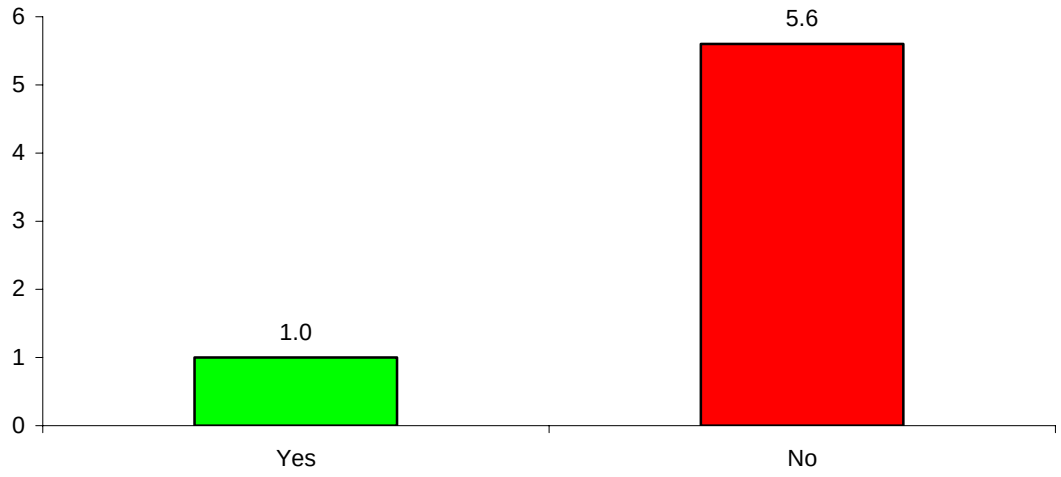
9.10 HIV Prevalence among Circumcised Men

Circumcision has been proven to reduce the risk of HIV transmission, because biologically, an uncircumcised foreskin is more vulnerable to HIV infection. Some 5 percent of the ethnic Papuan population are circumcised, compared to 70 percent of non-ethnic Papuans.

HIV prevalence among residents who have non-permanent partners and are circumcised is 1.0 percent, while among those who are not circumcised it is much higher, at 5.6 percent.

Figure 9.10

HIV prevalence among residents who have sex with non-permanent partners, by circumcision history



Conclusion and Recommendations

Conclusions

1. HIV prevalence among the population of Tanah Papua is 2.4 percent, higher than among populations in other areas of Indonesia, and has apparently spread to all parts of Papua. Prevalence among the male population is much higher (2.9 percent) than among the female population (1.9 percent). Prevalence is highest in the 40–49 age group, at 3.4 percent, followed by 15–24 year-olds at 3.0 percent.

2. Based on topography, HIV prevalence is higher among those who live in areas where access is difficult and/or are in the interior; HIV/AIDS prevalence in hard-to-access lowlands areas is 3.2 percent and in the highlands, 2.9 percent, while in easily accessible lowlands areas it is 1.8 percent. This is consistent with the low level of knowledge about HIV/AIDS and low condom use in these relatively inaccessible areas.

3. HIV prevalence among the ethnic Papuan population is higher (2.8 percent) than among non-ethnic Papuans (1.5 percent). This does not mean that there is a difference in vulnerability based on ethnic group, but is, rather, a reflection of differences in the level of knowledge about prevention and risk behaviour. Nevertheless, more in-depth research is needed to determine whether this is related to differences in circumcision status. HIV prevalence is higher among residents who have not been circumcised, at 5.6 percent, compared to 1.0 percent among those who are circumcised. Only around 5 percent of ethnic Papuans are circumcised, meanwhile, compared to 70 percent of non-Papuans.

4. In general, knowledge about HIV/AIDS among the people of Tanah Papua is still very low: 48 percent of the population had never heard of HIV/AIDS. Population groups with a low level of education (never attended school or did not complete a primary education) have much lower levels of knowledge, with 74 percent never having heard of HIV/AIDS compared to 20 percent of those who graduated from senior high school or university. Misperceptions about HIV/AIDS are still widespread among the majority of the population, and are spread evenly among those of all educational backgrounds.

5. The main sources of information about HIV/AIDS are radio and television, which were the source for 54 percent of the population, most of whom were in the more highly educated population groups. Only a small portion of the population had ever

attended a meeting about HIV/AIDS: just 8 percent of those with a low level of education and 26 percent of those with the highest levels of education.

6. Among the younger residents, there were more who experienced their first sexual intercourse before reaching the age of 15 compared to those in other age groups. This trend was much higher among females than males. The average age at first sex for residents of Papua is 19; and it is lower for females (18.8 years) than for males (19.5 years). More than 50 percent had had sex for the first time with their spouse or permanent partner, 40 percent with a friend, and 1.6 percent with a sex worker.

7. More of those in the younger age group, both males and females, had had more than one partner compared to those in older age groups. In general, in the last year more than 20 percent of male residents and 8 percent of female residents had had more than one sex partner. Around 16 percent of the population had had sex with a non-permanent partner in the last year, or 25 percent of males compared to 7 percent of females. For more than half, some sort of payment was involved.

8. Contrary to previous assumptions, alcohol does not play a significant role in the spread of this disease. Only 13.6 percent of the residents of Tanah Papua drink alcohol before having sex, and just 4.6 percent reported that they frequently or always consume alcohol before sex. Only 0.9 percent of female residents reported that they usually drank alcohol before having sex, while among males it was much higher, at around 7.6 percent.

9. Condoms are hard to access, whether in easily accessible lowlands areas, hard-to-access lowlands areas or in the highlands. Only around 17 percent of the population of Tanah Papua reported that it is easy to get condoms. Pharmacies and clinics are the main source of condoms. The very low level of condom use is linked to constraints on getting hold of them.

10. The percentage of residents with symptoms of sexually transmissible infections (STI) was higher among those who have multiple sex partners, and among who have sex with payment involved. In fact the percentage of the population with HIV was twice as high among those reporting STI symptoms, at 5.9 percent compared to 2.7 percent. Health officers are the most popular option for STI treatment, particularly in the highlands, while in hard-to-access lowlands areas 43 percent do not take any treatment action whatsoever.

Recommendations

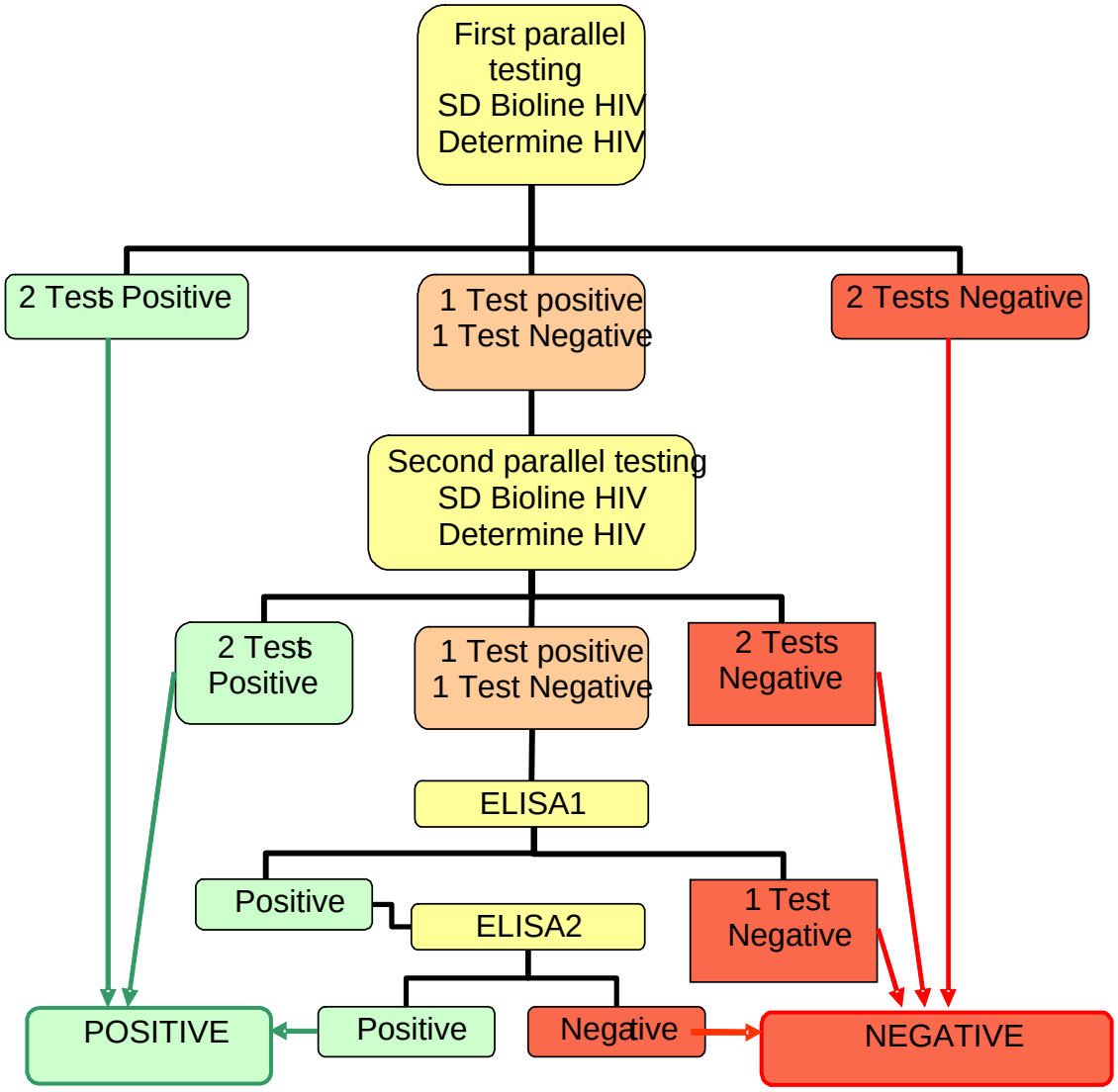
1. HIV prevention education needs to scaled up. Prevented efforts should be focused on populations that engage in risk behaviours, particularly those who have multiple sex

partners and those who exchange sex for payment. Similar efforts should be made to reach young people throughout all areas of Tanah Papua.

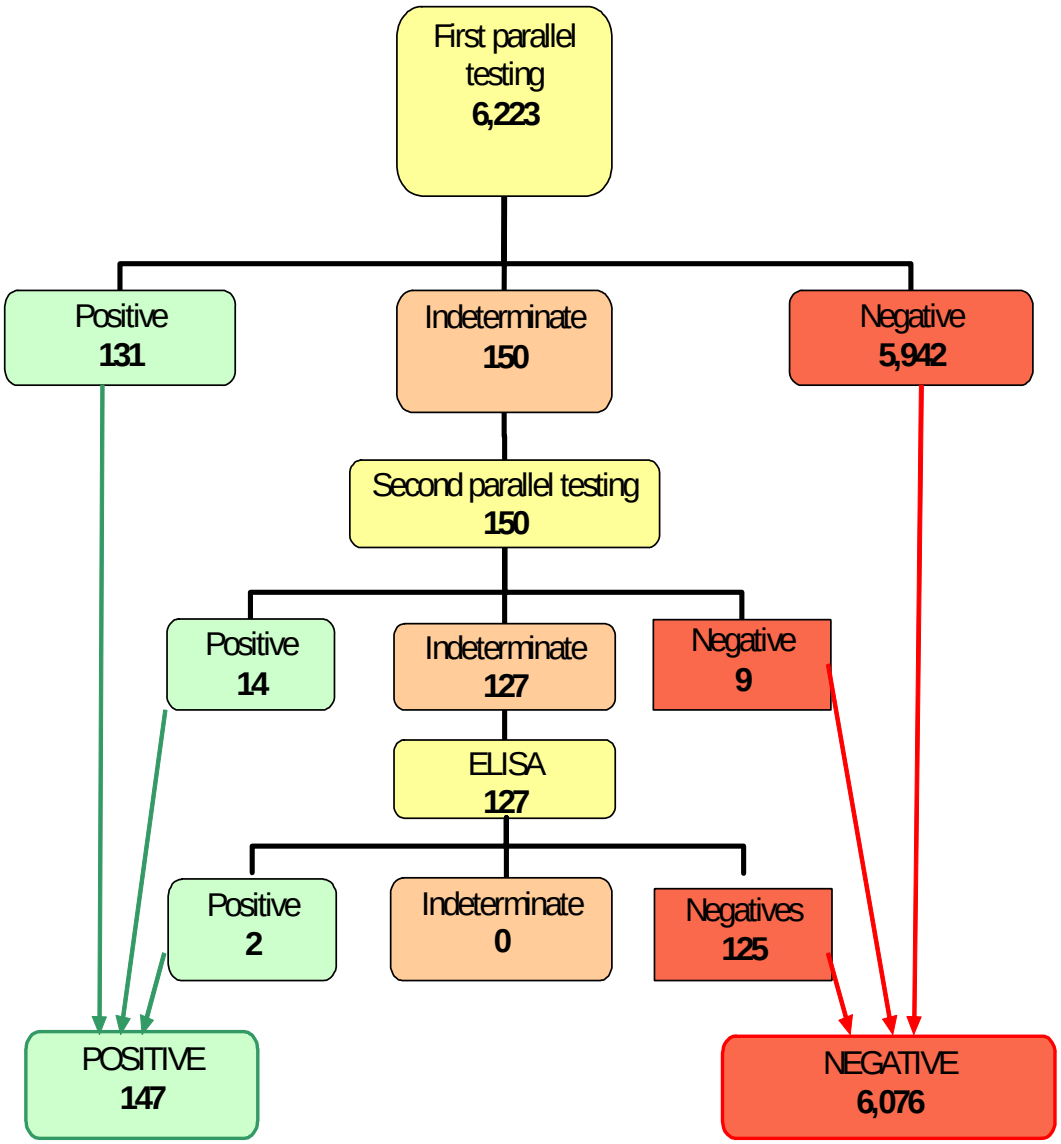
2. Access to and availability of prevention services, including condoms, needs to be expanded and improved throughout all areas of Tanah Papua. Additionally, STI treatment services need to be increased.

3. More in-depth information is needed about the views, norms, cultures and behaviours of the people of Papua, so as to enable a more detailed understanding of the HIV epidemic that can support HIV/AIDS prevention efforts in Tanah Papua.

SEROLOGY
Algorithm Testing



Laboratory results for HIV tests



Standard Procedure for Finger-prick HIV Tests for Laboratory Staff in the Field

Steps:

1. Respondent arrives bringing 2 code numbers
2. Stick the codes on the microtube and on the test result sheet.
3. Ask the respondent if she/her is willing to have blood taken.
4. Encourage the patient if she/he is reluctant to have blood taken.
5. If the patient continues to refuse, a blood sample must not be taken.
6. If yes, take the capillary blood following the instructions for taking peripheral blood.
7. When the blood has been taken, give the respondent a card for the nearest place to get full VCT services with the address and contact person, then inform her/him that if she/he wants to know her/his HIV status, she/he can go straight to the nearest VCT service.
8. Do parallel anti-HIV testing with the 2 reagents provided.
9. Start the timer and wait for the time stated in the directions.
10. Record the results by making a check mark √ according the test result on the result sheet.
11. Do the test every 3 – 4 samples, no more.
12. Remember, always maintain the confidentiality of the respondent.
13. Finish the test by separating the tubes based on the results: non-reactive, reactive and different results.
14. Finish your work by following the instructions for storing samples.

WORK FLOW FOR ANTI HIV TESTING IN THE FIELD

The respondent, after finishing the interview and sating her/his willingness to have blood taken, is given 2 labels

The census officer informs the lab worker of the location of the respondent whose blood will be taken

The lab worker approaches the respondent and asks if she/he is prepared to have a sample of their blood taken

No	Yes
Lab worker does not take a sample & says thank you	Lab worker takes the blood sample, following the instructions for taking a peripheral blood sample,

Lab worker does a parallel test using 2 reagents

Records the test results on the test sheet
with a check mark √

Separates the sample based on the results

Sends positive and indeterminate samples to the local Health Office

The local Health Office sends the samples to the Health Laboratory (BLK) in Jayapura for re-testing

All results sent to Local Papua Health Office

Equipment and materials needed

a) Automatic Blood Lancet

b) EDTA Microtube vol 500 ul

c) Cotton wool

d) Alcohol Swabs 70%

e) Gloves

f) Waterproof markers

g) Timer

h) SD HIV 1/2 Bioline 3.0 (Multi) Reagent

i) Determine HIV 1/2 Abbott Reagent

j) Advanced Quality - One Step Anti-HIV (1&2) Tri-line Test Reagent

k) HIV Oncoprobe Reagent

l) Container for blood-drawing equipment

m) Sharps disposal container

n) Biohazard waste bags

o) Tissue

p) Plastic tablecloth

q) Bayclin (bleach)

r) Pasteur Pipette

PROCEDURE FOR TAKING SPECIMENS

1. Preparations
    a. Equipment and Materials
        i. 70% alcohol swabs
        ii. Sterile lancets
        iii. Clean, dry cotton wool/gauze
        iv. Clean, grease-free slides
        v. Blood specimen cards (*filter paper blood collection*)
        vi. Containers for medical and sharps disposal
        vii. Writing instruments and forms as needed
    b. Participant
        i. Clean the participant's hand
        ii. If possible, wash it with soap and warm water
2. Place the equipment and materials on a flat surface that is within easy reach
3. Write the date on which the specimen is taken, the age, sex, ethnic group/tribe and origin of the participant on the slide and the blood specimen card
4. Remove the cover from the lancet
    a. Take the cover off the lancet
    b. Do not touch the sharp part that will be used to make the puncture
5. Choose the drawing site
    a. The site for drawing capillary blood in adults is usually the tip of the little finger or the side of the middle finger
    b. In babies, it can be taken from the heel or the side of the big toe
6. Disinfect the drawing/puncture site with a 70% alcohol swab and leave to dry
7. Stretch out the skin at the puncture site by pinching it between 2 fingers
8. Pierce quickly to a depth of ± 3 mm
9. Wipe away the first drop of blood that comes out with dry cotton wool/gauze, because the drop may still be mixed with alcohol. This is also to ensure that the puncture hole made by the lancet does not close up quickly and that the blood that comes out does not get spread around
10. Point the punctured finger downwards, then massage it, starting from the base of the finger
11. Make a thick smear and a thin smear to test for malaria
    a. Squeeze two drops of blood onto the slide
    b. Spread the first drop in a circle using the end of another slide to make the thick smear.
    c. The second drop is used to make the thin smear
        i. With your right hand, place the moving slide to the left of the blood drop at an angle of 45º
        ii. Move it to the right, so that it touches the second drop of blood
        iii. Let the blood spread evenly along the edge of the moving slide
        iv. Immediately move the slide to the left at an angle of 30º - 45º. Do not press the moving slide downwards. This movement must be rapid and smooth.
12. Making the specimen on the blood specimen card (*filter paper blood collection*)

a. Place the blood specimen card that has been labelled with data on a flat surface.

b. Drop 2 – 3 drops of blood in each circle until the circle is filled. Let the blood drop, or, if necessary, touch the drop of blood with the blood specimen card, but do not touch the finger.

c. Air dry the blood specimen card and keep it away from ants and flies.

d. When it is dry, put the blood specimen card into a plastic ziplock bag. Use one bag for each blood specimen card.

13. Cover the puncture with clean and dry cotton wool /gauze and ask the patient to hold it her/himself
14. Send the blood specimen card complete with the necessary data to the local Health Office.

ANTI-HIV TEST
Method : Rapid Test
Reagent : SD HIV 1/2 3.0 (Multi)
Test Material : Full blood

Directions:

1. Put on gloves.
2. Prepare a biohazard waste plastic bag with a 0.5% hypochlorite solution.
3. Open the packet then identify the sample in accordance with the tube code on the membrane.
4. Drop 1 drop of blood in to the sample hole.
5. Wait and allow to absorb.
6. Then drop 3 drops of sample diluent.
7. Start the timer, wait and allow to absorb.
8. Read the result within 5–20 minutes (do not exceed 30 minutes).
9. Record the result on the laboratory test result sheet.

Interpretation of Results:

(Picture)

ANTI-HIV TEST
Method : Immunochromatography
Reagent : Determine Anti HIV
Test Material : Full blood

Directions :

1. Put on gloves.
2. Prepare a biohazard waste plastic bag with a 0.5% hypochlorite solution.
3. Leave the reagent at room temperature.
4. Open the test strip then identify the sample in accordance with the tube code on the membrane.
5. Drop 2 drops of the sample blood onto the sample pad (see arrow).
6. Drop 1 drop of the chase buffer.
7. Wait for approximately 15 minutes (up to 1 hour).
8. Read the result.
9. Record the result on the laboratory test result sheet.

Interpretation of Results:

- ♦ Reactive = 2 red lines on the control line and patient line.
- ♦ Negative = 1 red line on the control line.
- ♦ Invalid = No red lines either on the control line or on the patient line.

ANTI-HIV TEST

Method : Rapid Test

Reagent : HIV Oncoprobe

Test Material : Full blood

Directions:

1. Put on gloves.
2. Prepare a biohazard waste plastic bag with a 0.5% hypochlorite solution.
3. Leave the reagent at room temperature.
4. Open the package then identify the sample in accordance with the tube code on the membrane.
5. Drop 2 drops of blood into the sample hole (S).
6. Then drop 2 drops of buffer.
7. Start the timer, wait and allow to absorb.
8. Read the result within 5–20 minutes (not more than 20 minutes).
9. Record the result on the laboratory test result sheet.

Interpretation of Results:

(Picture)

ANTI- HIV TEST RESULT SHEET

Date : _____

NO	SAMPLE CODE	Reagent _____	Reagent _____	Remarks
		RESULT	RESULT	
1.		Non Reactive Reactive	Non Reactive Reactive	
2.		Non Reactive Reactive	Non Reactive Reactive	
3.		Non Reactive Reactive	Non Reactive Reactive	
4.		Non Reactive Reactive	Non Reactive Reactive	
5.		Non Reactive Reactive	Non Reactive Reactive	
6.		Non Reactive Reactive	Non Reactive Reactive	
7.		Non Reactive Reactive	Non Reactive Reactive	
8.		Non Reactive Reactive	Non Reactive Reactive	
9.		Non Reactive Reactive	Non Reactive Reactive	
10.		Non Reactive Reactive	Non Reactive Reactive	
11.		Non Reactive Reactive	Non Reactive Reactive	
12.		Non Reactive Reactive	Non Reactive Reactive	
13.		Non Reactive Reactive	Non Reactive Reactive	
14.		Non Reactive Reactive	Non Reactive Reactive	

15.	Non Reactive Reactive	Non Reactive Reactive
16.	Non Reactive Reactive	Non Reactive Reactive
17.	Non Reactive Reactive	Non Reactive Reactive
18.	Non Reactive Reactive	Non Reactive Reactive
19.	Non Reactive Reactive	Non Reactive Reactive
20.	Non Reactive Reactive	Non Reactive Reactive
21.	Non Reactive Reactive	Non Reactive Reactive
22.	Non Reactive Reactive	Non Reactive Reactive
23.	Non Reactive Reactive	Non Reactive Reactive
24.	Non Reactive Reactive	Non Reactive Reactive
25.	Non Reactive Reactive	Non Reactive Reactive
Recorded By		
Person in Charge		

PROCEDURE FOR DISINFECTING THE EXAMINATION TABLE

1. Use easily available 5.25% concentration hypochlorite (Bayclin/Sunclin/Soklin bleach) without any special aroma
2. Make a 1 : 10 solution of the hypochlorite, as follows:
   1 part hypochlorite to 9 parts water
3. Disinfect the examination table with the 0.5% hypochlorite solution
4. Leave it for 15 minutes
5. Wipe down the examination table with water to ensure that it does not get damaged, because hypochlorite is corrosive.
6. The surface of the table must be decontaminated after anything is spilled on it, and before and after finishing work

HANDLING TEST WASTE

1. Dispose of used autolancets in a puncture-resistant container, see illustration

2. Separate infectious waste from non-infectious waste.
3. For infectious waste, use yellow plastic waste bags that have been disinfected with 0.5% hypochlorite.
4. For non-infectious waste, use black plastic bags.
5. Dispose of and burn infectious waste and the puncture-resistant container containing the autolancets in the incinerator.

PROSEDURE FOR STORING SAMPLES

1. Separate samples that have been tested according to the results.
2. Send reactive samples and samples with different results to the Health Laboratory (BLK) in Jayapura.
3. Samples can be stored at a maximum temperature of 2-8ºC for 7 days.

Appendix 3

Survey Methodology

This Chapter explains the sampling methods, covering area stratification, sample allocation (districts/cities, census blocks, and respondents who fulfilled the criteria), the sampling procedure, and the estimation procedure. The purpose of stratification by area was to arrive at a sample that was representative of the population of Papua based on the topographic characteristics of the area, and to organize the implementation of the survey more efficiently.

1. Geographical Scope

The IBBS2006 was carried out in several districts/cities in Tanah Papua. We divided Tanah Papua into three topographical regions: districts/cities in the highlands, districts/cities in easily accessible lowlands areas, and districts/cities in hard-to-access lowlands areas. These topographic regions were then used as the strata in the selection of samples.

2. Sample Frame

Before the IBBS2006 was conducted, the areas to be surveyed were identified so that the total population in each strata (topographic area) to be surveyed could be ascertained. The population is an aggregate of the individuals who are to be studied and is established as a sample frame to determine the survey target groups. The sample frames used in the IBBS2006 were distinguished according to the phase of selection of the sampling unit, i.e. the sample frame for the selection of the district/city and census block, and the sample frame for the selection of the respondents who fulfilled the criteria.

In the selection of sample districts/cities, the sample frame used was the list of districts/cities that had been divided into the three categories, as follows:

a. Highland Districts/Cities, covering Jayawijaya District, Yahukimo District, Tolikara District, Pegunungan Bintang District, Puncak Jaya District, and Paniai District.

b. Easily Accessible Lowlands Districts/Cities, covering Jayapura City, Keerom District, Sarmi District, Jayapura District, Sorong City, Fakfak District, Biak Numfor District, Yapen Waropen District, Merauke District, Sorong District, Manokwari District, and Nabire District.

c. Hard-to-Access Lowlands Districts/Cities, covering Waropen District, Kaimana District, Asmat District, Mappi District, Boven Digoel District, Sorong Selatan

District, Raja Ampat District, Teluk Bintuni District, Teluk Wondama District, Supiori District, and Mimika District.

To select the census blocks, the sample frame used was the list of census blocks in the selected districts/cities, while to select the respondents who fulfilled the criteria, the sample frame used was the list of respondents who fulfilled the criteria in the selected census blocks obtained through listing. In this activity, respondents who fulfilled the criteria were residents aged between 15 and 49 years old.

3. Sample Design

The sampling design used was three-phase sampling, as follows:

Phase I: Selecting a number of sample districts/cities by PPS *(Probability Proportional to Size)* with the opportunity proportional to the total population according to P4B (the Ongoing Population Census). The number of selected districts/cities for each topographical area was proportional/comparable to the total population.

Phase II: Selecting a number of census blocks by PPS in each selected district/city with opportunities proportional to the total population.

Listing was done for all households and residents in the selected census block. The objective of listing was to establish a sample frame for the selection of respondents who fulfilled the criteria.

Phase III: Systematically selecting 25 respondents who fulfilled the criteria in each selected census block. Prior to sampling, individuals resulting from listing were ranked according to sex and age group.

Sampling in the first and second phases was done at BPS, while the selection of samples in the third pause was done in the regions.

4. Total Sample

The size of the sample was determined in order to arrive at an estimation according to the strata (topographic areas); that is, highland areas, easily accessible lowlands areas and hard-to-access lowlands areas. It was decided to have ten target sample districts/cities, which were then allocated to each topographic area in proportion to the root total of residents. The total of districts/cities selected in each topographic area is shown in Table 1.

Table 1. Total Districts/Cities by Topographic Area

Topographic Area	District/City
1. Highland	3
2. Easily Accessible Lowlands	4

3. Hard-to-Access Lowlands	3

The target sample of respondents who fulfilled the criteria was 6,500, which covered 260 census blocks allocated to each selected district/city in proportion to the root total population. The target sample census blocks and respondents who fulfilled the criteria are shown in Table 2.

Table 2. Target Sample Census Blocks and Respondents who Fulfilled the Criteria, by Selected District/City and Topographic Area

District/City	Topographic Area	Total Census Blocks			Total Sample Respondents who Fulfilled Criteria
		Urban	Rural	Total	
(1)	(2)	(3)	(4)	(5)	(6)
04 Teluk Bintuni	Lowlands/Easy	1	13	14	350
06 Sorong Selatan	Lowlands/Hard	2	20	22	550
71 Sorong	Lowlands/Easy	40	2	42	1.050
02 Jayawijaya	Highland	3	33	36	900
03 Jayapura	Lowlands/Easy	7	18	25	625
08 Yapen	Lowlands/Easy	6	15	21	525
10 Paniai	Highland	--	15	15	375
14 Mappi	Lowlands/Hard	--	17	17	425
17 Pegunungan Bintang	Highland	--	19	19	475
71 Jayapura	Lowlands/Easy	39	10	49	1.225
T o t a l				**260**	**6.500**

5. Listing

As explained above, the work areas or census blocks were determined at BPS. The Field Coordinator, assisted by the supervisor, identified the selected census blocks and visited the areas to introduce the survey to community leaders who were respected by the local people, and get their support. This was necessary if the survey was to be done in the chosen areas properly and on schedule. It also provided an opportunity to make an inventory of the areas selected as the target areas.

After identifying the locations based on the census block map, the officers then traced the listing locations. This involved going around the whole area to identify the boundaries. They then did a listing of all the households/buildings in the census block using the IBBS2006-L List.

The purpose of the field investigation and listing was to ascertain the total number of residents in the census block and at the same time to update the information on the census block map. It should be noted that before the teams entered their assignment areas, they needed information about people who could act as mediators or key persons/contact persons. Other information needed included the timing of visits that would allow for interviews to be conducted in the area concerned.

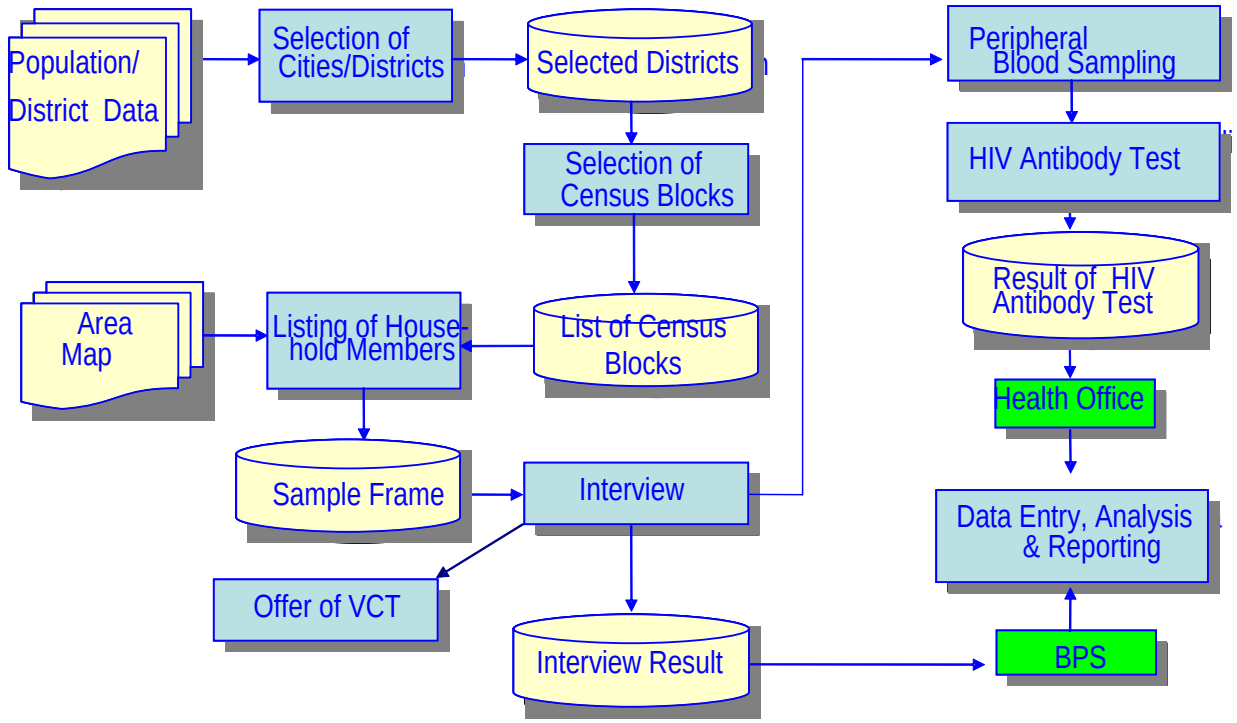
6. Data Collection

During data collection, the selected respondents were interviewed directly and samples of their blood taken by trained IBBS2006 officers. Interviews were conducted in one place and respondents were not accompanied by any other person, to ensure that the confidentiality of the interview and blood test results could be guaranteed.

7. Methodology Outline

The data collection methodology for the behaviour surveillance survey can be illustrated as in the flow chart in Diagram 1:

Diagram 1. Outline of Methodology for Integrated HIV-Behaviour Surveillance Survey 2006



8. Estimation Method

The planned number of samples could only be used to estimate averages, proportion/percentages, or ratios by sex, age group and strata. The estimation method used was indirect estimation, that is a ratio estimate with the weight being the ratio between the realisation of the target sample of respondents who fulfilled the criteria according to sex, age group and strata, and the residents derived from the projection according to sex, age group and strata.

This method resulted in an estimator that was biased but consistent. If measuring a large sample, the bias would be small. The advantage of using this method compared to direct estimates is that the variance is smaller and the estimation result is not influenced by the listing result, which often results in under-coverage. If there is under-coverage of 10 percent in the listing result, it will result in an under-estimation of more or less 10 percent.

For example, if the respective $\tilde{P}_{hij}$ and m_{hij} state that the population projection and realisation of the target sample in strata is *h*, sex is *i* and age group is *j*, the weight can be formulated as $W_{hij} = \frac{\tilde{P}_{hij}}{m_{hij}}$.

For example, if y_{hijk} and x_{hijk} state the characteristic value of Y and X respondents *k*, age group *j*, sex *i*, strata *h*, then the total estimation for these characteristics can be formulated as follows:

$$\hat{Y}_{hij} = \sum_{k=1}^{m_{hij}} W_{hij} y_{hijk} \ .$$

$$\hat{X}_{hij} = \sum_{k=1}^{m_{hij}} W_{hij} x_{hijk}$$

Such that the estimated ratio between characteristics Y and X is formulated as follows:

$$\hat{R}_{hij} = \frac{\hat{Y}_{hij}}{\hat{X}_{hij}}$$

9. Participation Rate

All respondents were interviewed by officers using a questionnaire to derive information about sexual behaviour, and then had a blood sample taken to be tested. The total number of respondents interviewed about their sexual behaviour is presented in Table 4.

Table 4. Number of Behaviour Respondents, by Age Group, Sex and Topographic Area

Age Group	Sex	Topographic Area			
		Highland	Lowlands/ Easy	Lowlands/ Hard	Total
(1)	(2)	(3)	(4)	(5)	(6)
15 – 24	Male	268	556	198	1,022
	Female	288	602	231	1,121
25 – 39	Male	426	739	318	1,483
	Female	423	749	328	1,500
40 - 49	Male	216	313	142	671
	Female	126	288	94	508
Total		1,747	1,747	1,311	6,305
% of target sample		**99.8**	**99.8**	**98.9**	**97.0**
Target sample		1,750	1,750	1,325	6,500

The entire sample who fulfilled the criteria and who were interviewed amounted to 6,305 respondents (97.0 percent of the target sample), which broke down into 3,247 (94.8 percent of the target sample) in the easily accessible lowlands strata, 1,311 (98.9 percent of the target sample) in the hard-to-access lowlands strata, and 1,747 (99.8 percent of the target sample) in the highland strata (Table 4). Overall, the non-participation rate was 3.0 percent. Non-participation was caused in general by the respondents refusing or not being present (at home) when the interviewing officer came. There was a tendency, for areas that were easy to reach (the easily accessible lowlands strata) to have a lower participation rate compared to areas that were more difficult to reach (the hard-to-access lowlands and highland strata). This is because the residents in the easily accessible lowlands areas have relatively high mobility, which resulted in the officers experiencing some difficulty when trying to meet the respondents because they were not at home.

The specific objective of the IBBS2006 was to estimate the parameters of HIV prevalence based on blood specimens, and parameters of social indicators related to sexual behaviour, injection drug use, perceptions of HIV risk, and so on. Both these parameters were collected from the same sampling units through different approaches: for HIV prevalence the information was collected through testing blood specimens taken from each respondent, while for social behaviour indicators the data were collected through direct interviews with the respondents.

In this way we could obtain a pair of data sets from the results of the tests on the blood specimens and data on various social behaviour indicators. From the results of the blood specimens not all respondents who were interviewed also gave blood samples.

Table 5. Number of Sexual Behaviour Respondents Willing to Have Blood Taken, by Age Group, Sex and Topographic Area

Age Group	Sex	Topographic Area		
		Highland	Lowlands/ Easy	Lowlands/ Hard
(1)	(2)	(3)	(4)	(5)
15 – 24	Male	267	549	191
	Female	287	596	222
25 – 39	Male	425	728	312
	Female	422	741	322
40 - 49	Male	216	307	139
	Female	126	281	92
Total		1,743	3,202	1,278
% of behaviour respondents		99.8	98.6	97.5
Total behaviour respondents		1,747	3,247	1,311

Of the 6,305 respondents interviewed about their sexual behaviour, only 6,223 or 98.7 percent were willing to have a blood sample taken to test for the HIV virus (Table 5). The highest level of participation, 99.8 percent, was found in the highland strata, followed by 98.6 percent and 97.5 percent respectively for the easily accessible lowlands and hard-to-access lowlands strata.

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