Chuuk HIV and STI Behavioral Survey with Women who Exchange Sex for Money or Goods

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1. Introduction

The Federated States of Micronesia (FSM) consist of four major island groups forming the states of Kosrae, Pohnpei, Chuuk and Yap. Together, these groups comprise 607 Islands, of which many remain uninhabited. All states apart from Kosrae consist of a main island on which the state urban centre is located, and a series of outer islands. The national population is estimated to be 110,899 with 60% aged 24 years and under. About half of the population of the FSM resides in the state of Chuuk; however, the population is very mobile. Fertility rates in FSM remain relatively high, with an estimated TFR of 3.16 in 2006, although the number of children born per woman has declined considerably over recent decades, from 8.2 in 1973, 4.7 in 1997, and 4.4 in 2001 (UNAIDS 2008).

There is a high level of unemployment or under-employment, especially among young people. The economy is largely dependent on the fishing industry and licensing fees, migrant labor, and funds from the United States through the Compact of Free Association and other aid grants. Just over half of all people in paid jobs are employed in the public sector. Household incomes are generally low, with a median of USD 4,662 per year, households are large with an average of 6.8 people, and there are few paid livelihood opportunities outside of the public sector.

HIV epidemiology in the Pacific

Most Pacific Island countries and territories (PICTs), other than Papua New Guinea, have been classified as low prevalence settings by the World Health Organization (WHO)[1]. HIV cases have now been reported in every PICT apart from Niue, Tokelau and Pitcairn Island with 19, 179 cumulative HIV infections reported up to December 2007 [2]. HIV infections in PNG account for over 90% of these cases. Overall 3,230 AIDS cases and 651 AIDS-related deaths have been reported in the Region, however this is believed to be an underestimate of the true burden as diagnosis of AIDS in the Region is difficult for a number of reasons, including poor uptake of testing and limited access for most at-risk populations. The majority of HIV transmission in the Pacific has been attributed to heterosexual contact.

HIV epidemiology in FSM and Chuuk State

A total of 35 positive HIV cases were confirmed in FSM as of December 2007 (UNAIDS 2008). The majority (62.8%) of these cases were aged between 25-44 years and 68.5% were male. The main mode of transmission is via heterosexual intercourse. Chuuk accounts for the majority of HIV positive cases in FSM, with a total of 22 cases having been detected up to

the time of writing this report. Three of the twenty-two people who have tested positive a still alive.

1. SGS background

Second generation surveillance (SGS) involves strengthening existing HIV surveillance systems to improve the quality and breadth of information. SGS uses information from ongoing routine data collection systems *and* includes periodic collection of behavioural and biological data. SGS includes both surveillance of both the general population and specific high risk subgroups.

SGS aims to:

- Increase the understanding of trends over time
- Increase knowledge of risk behaviours driving trends
- Use flexible tools that can change according changes over time
- Make better use of existing surveillance data

Recommended frequency and type of surveillance differs according to the level of the HIV epidemic. HIV epidemics can be broadly classified into three levels:

Low: HIV is present in 'high risk' population subgroups, such as sex workers, injecting drug users, and men who have sex with men. HIV may have present in these groups for sometime, but prevalence remains low and stable.

Concentrated: There has been a rapid increase of HIV in high risk population sub-groups, but HIV is not yet prevalent within the general community.

Generalised: While high risk groups have a disproportionately high prevalence, HIV is also established within the general population.[1]

SGS in Low Prevalence Settings

SGS aims to provide an early warning of groups who are a high risk and the associated risk behaviours.

Comprehensive SGS surveillance activities in low-level epidemics include

- cross-sectional behaviours surveys
- surveillance of STIs,
- HIV serosurveillance,
- HIV and AIDS Case reporting
- screening donated blood.

Pohnpei, FSM conducted Second Generation Surveys in Prenatal women, youth and police population groups. All participants completed a questionnaire which provides information

[1] UNAIDS/WHO Working Group on Global HIV/AIDS and STI Surveillance, Guidelines for Second Generation HIV Surveillance, 2000

on demographic characteristics, sexual risk behaviours, alcohol and other drug use, HIV knowledge, attitudes and access to testing, and STI history.

Questionnaires were based on surveys developed by the Family Health International organisation, and modified for use in the Pacific by the University of New South Wales (NSW) in Australia, the World Health Organization (WHO) and the Secretariat of the Pacific Community (SPC).

The behavioural questionnaires are similar for all population groups. The surveys have been adjusted to make them relevant to that population of interest and enable reporting of population-specific indicators.

Surveys Conducted in Country

A total of six surveys were conducted in FSM from 2006-2008:

- STI Prevalence Survey (SPS) among pregnant women in Pohnpei;
- Behavioural Surveillance Survey (BSS) among youth in Yap and Pohnpei;
- Behavioural Surveillance Survey (BSS) among police in Yap and Pohnpei;
- HIV Prevalence Survey among adults in the Pattiw Islands in Chuuk.

Ethics approval for each survey was received from the relevant state authority.

Specimen collection and testing

STI prevalence surveys involved the collection of urine samples to test for the presence of Chlamydia and gonorrhoea, and blood for syphilis, hepatitis B surface antigen and HIV antibody testing. HIV prevalence surveys involved the collection of blood for syphilis, hepatitis B and HIV antibody testing.

Participants who took part in SPS were asked to provide a 10-15 ml first catch urine sample. Specimens were transferred to the central laboratory in country and frozen at -20 degrees celsius until subsequent shipment to the testing laboratory.

Frozen urine specimens were sent to the Molecular Microbiology Laboratory at the Royal Women's Hospital in Melbourne, Australia to test for Chlamydia and gonorrhoea.

Laboratory testing involved amplification of *C.trachomatis* and *N.gonorrhoeae* sequences undertaking using the ROCHE COBAS Amplicor (Roche Diagnostics, Branchburg, New Jersey, United States of America). All positive *N.gonorrhoeae* specimens were then confirmed by an alternate test, another assay using primers and probes directed at a 90 base pair region of the OPA gene.[2]

[2] Tabrizi S, Chen S, Tapsall J, Garland S. Evaluation of opa-based real-time PCR for detection of Neisseria gonorrhoeae. Sexually Transmitted Diseases

For participants involved in the SPS, a 10 ml blood sample was taken for testing. Blood specimens were tested in the national laboratories in country, except for HIV confirmatory tests, which were sent to the regional confirmation laboratory for the country.

Infection	Specimen	Tests
Chlamydia	Urine	PCR Assay
Gonorrhea	Urine	PCR Assay
Syphilis	Blood	TPHA
		RPP
		RPR titre (if RPR was reactive). Cases were recorded as infectious syphilis if titres were greater than or equal to 1:8.
HIV antibodies	Blood	ELISA: Determine and Serodia
HIV Confirmatory	Blood	Confirmed according to the regional algorithm

Data analysis

Data was entered into a Microsoft Excel database. Excel validation procedures were used for data entry to maximize accuracy of data entry. Ten percent (7) questionnaires were randomly selected to check for accuracy, with accuracy rates being higher than 95% for all questionnaires. Simple descriptive and prevalence statistics were calculated using Microsoft Excel. Where appropriate, additional analysis was conducted using Pivot Tables and online confidence interval calculators (e.g., http://www.dimensionresearch.com/resources/calculators/conf_prop.html)

2. Survey Results

Table 1 summarizes the demographic statistics from the survey. A total of 70 participants were surveyed. The average age of the participants was 20.4 years, ranging from 15 years to 40 years. Eighty percent of the participants were aged between 15 to 24 years. Forty percent of the participants had completed high school, with 54% having only completed elementary school or lower. Table 2 summarizes the marital status of the survey participants. The majority (91.3%) of participants had never been married, and only 6% reported that they are currently living with a spouse or other sex partner.

Table 1: Demographics of survey participants

Demographics		
Average age	20.4 years	
Range	15 to 40 years	
	n [N]	**%**
Age Group		
15 to 24	56 [70]	80
25+	14 [70]	20
State born		
Chuuk	70 [70]	100.0
Ethnicity		
Chuukese	66 [70]	94.3
Other Micro	4 [70]	5.7
Village		
Nepukos	30 [70]	42.9
Neauo	22 [70]	31.4
Mwan	8 [70]	11.4
Been away from home		
Yes	4 [70]	5.7
No	66 [70]	94.3
Education		
Completed High School	28 [70]	40.0
Completed Elementary	27 [70]	38.6
Some Elementary	11 [70]	15.7

Table 2: Marital Status and Living Arrangements

Marital Status	**n [N]**	**%**
Ever married		
No	63 [69]	91.3
Yes	6 [69]	8.7
Currently living with		
Not with sex partner	45 [48]	93.75
With a sex partner	3 [48]	6.25

3.1 Sexual History and Behaviors

Table 3 summarizes the sexual history of the participants. The average age of first sexual intercourse was 15.5 years (range: 10 to 24 years), whilst the average age of the first paid sexual encounter was 17.6 years (range: 10 to 34 years). Over half (54%) had sex for the first time over the age of 15 years, and more than two-thirds (69.6%) were older than 15 years of age when they first had paid sex. A chi square calculation with Yate's correction showed that those women who only finished elementary school or lower were more likely to have had their first sexual encounter below the age of 15 (57.9%) than those women who completed some high school or higher (31.5%; Chi Square = 3.95, $p<0.05$). However there was no different between education level and age of first paid sex.

Table 3: Sexual History

Sex History		
Average Age of 1st Sex	15.5 years	10 to 24
Average Age of 1st Paid Sex	17.6 years	10 to 34
Age Group 1st Sex	**n [N]**	**%**
<15	32 [70]	45.7
>15	38 [70]	54.3
Age Group 1st Paid Sex		
<15	21 [69]	30.4
>15	48 [69]	69.6
Sex work		
Why do sex work?		
To make money	46 [70]	65.7
I enjoy sex work	16 [70]	22.9
Other work		
Yes	10 [69]	14.5
No	59 [69]	85.5
For$ x Other work		
For$ +no other work	41 [45]	91.1
For$ +other work	4 [45]	8.9

The majority of participants said that the reason they did sex work was to make money (66%). A further 23% said they did sex work because they enjoyed it. A small proportion (14.5%) indicated that they have other paid employment other than sex work. Amongst those women who said they do sex work for money, only 9% said they have some other form of paid employment.

Table 4 shows knowledge and experiences of condoms and condom use. Whilst 85% of participants had heard of a male condom, only half had heard of a female condom. Despite this high level of awareness, only 54% of participants reported having ever used a male condom, and 6% said they had ever used a female condom. Forty percent of women said they had never used a condom. Additionally, only 11% reported using a condom every time they had sex with a client, and only 29% reported using a condom the last time they had sex with a client. Nearly half (46%) said they had ever found it difficult to use a condom with a client but there was no difference in condom use between those who said they found it difficult to use a condom with a client and those who did not. Of those participants who did not use a condom the last time they had sex with a client, nearly all (94.9%) said it was because none were easily available.

Table 4: Condom Use

Condom	**n [N]**	**%**
Heard of a male condom?		
Yes	59 [69]	85.5
No	10 [69]	14.5
Heard of a female condom?		
Yes	35 [69]	50.7
No	34 [69]	49.3
Ever used a condom		
Yes, male	36 [67]	53.7
Yes, female	4 [67]	6.0
No	27 [67]	40.3
Ever found condom use difficult **with client?**		
Yes	24 [52]	46.2
No	20 [52]	38.5
Don't know	8 [52]	15.4
Used condom last sex **with client**?		
Yes	16 [55]	29.1
No	39 [55]	70.9
Reason for not using a condom		
None easily available	37 [39]	94.9
Freq. of Condom Use past 30 days		
Sometimes	24 [36]	66.7
Never	8 [36]	22.2
Everytime	3 [36]	11.5

Table 5 highlights recent sexual activity amongst the participants. Nearly all of the women (87%) reported having commercial sex within the past 12 months. Of these women, the average number of partners on the last day they were paid for sex was 2 (range: 1 to 9), and the average number of partners within the 7 days prior to the survey who paid for sex was 1 (range 0 to 4) and who gave goods for sex was also 1 (0 to 5).

The average amount of money paid to the women for sex was nearly fifty dollars ($47.14), and ranged from 0$ to $150. Regarding those women who received goods in return for sex, 48.5% said they received alcohol or drugs, while 12% said they received clothes.

Table 5: Recent Sexual Activity

Recent Sex Activity	**n [N]**	**%**
Sex in past 12mths with **live in partner***		
Yes	32 [59]	54.2
No	27 [59]	45.8
Commercial Sex in past 12 months?		
Yes	60 [69]	87.0
No	9 [69]	13.0
	Ave [N]	**range**
Average #commercial partners on last day of sex work?	2 [63]	1 to 9
Number paying clients last 7 days	1 [53]	0 to 4
How much did your last client pay?	$47.14 [56]	0 to 150
Number of clients giving goods or things other than $ in past 7days	1 [46]	0 to 5
	n [N]	**%**
What goods were received?		
drugs/alcohol/cigarette or betelnut	16 [33]	48.5
cell phone/phone card	3 [33]	9.1
clothing	4 [33]	12.1

* Only 3 people actually reported living with a sex partner. However, it is assumed this question referred to sex with a regular partner, including boyfriends/spouses that one does not live with.

Table 6 summarizes the type of clients involved in sex work and the locations where sex work takes place. Forty percent of the women said they met their most recent client on the street. A further 16% said their most recent client came through a friend or other client, and 13% said it was at a private house. The most common location for having paid sex was at a private house (54%), followed by hotel (17.5%). For about one third of women (36.5%), their clients were usually youth, followed by government worker (20.6%), and business men (14.3%).

Table 6: Clients and Locations for Sex Work

Commercial Sex Work Activity and Clients	n [N]	%
Ethnicity of most recent client		
Micronesian	62 [63]	98.4
How did you meet your most recent client?		
Street	25 [62]	40.3
Friend or other client	10 [62]	16.1
Private house	8 [62]	12.9
Where have you had commercial sex in past 12 months?		
Private house	34 [63]	54.0
Hotel	11 [63]	17.5
Car	6 [63]	9.5
Bushes	6 [63]	9.5
Who are your clients?		
Youth	23 [63]	36.5
Govt Workers	13 [63]	20.6
Business men	9 [63]	14.3

Table 7 below summarizes family and community responses to sex work. Less than a third (30.9%) of women said that someone in their family knows that they do sex work. Of these women, three-quarters (76.4%) said they experienced stigma and discrimination from their family, whilst 17.6% said they felt accepted.

In contrast, more than half of the women surveyed (56.4%) said that someone in their community knows that they do sex work. Of these women, 64.5% felt stigma and discrimination from these community members whilst 22.6% said they were accepted.

Table 7: Family and Community Responses to Sex Work

Responses to sex work	n [N]	%
Does anyone in you family know you are doing sex work?		
Yes	17 [55]	30.9
No	38 [55]	69.1
What is their reaction?		
Discrimination	10 [17]	58.8
Stigma	3 [17]	17.6
Acceptance	3 [17]	17.6
Do others in your community know?		
Yes	31 [55]	56.4
No	24 [55]	43.6

What is their reaction		
Discrimination	15 [31]	48.4
Acceptance	7 [31]	22.6
Stigma	5 [31]	16.1

Table 8 highlights casual sex experiences of the women surveyed. Half (50.8%) said that they had casual sex (i.e., not for money or goods, nor with a spouse or boyfriend) in the last 7 days, with the average number of casual sex partners being 2. Similar to clients, about half (42.9%) reported that it was difficult to use a condom with a casual sex partner. Only one third (34.5%) said they used a condom the last time they had sex with a casual partner. Of those who did not use a condom the last time they had sex with a casual partner, 72% said that it was because none were easily available. Further to this, 40% of the women reporting casual sex in the last 7 days said that they never used a condom with a casual sex partner in the past 12 months.

Table 8: Reported Casual Sex Experiences

Casual Sex	**n [N]**	**%**
Had casual sex in last 7 days?		
Yes	30 [59]	50.8
No	29 [59]	49.2
Ever found it difficult to use a condom with a casual sex partner?		
Yes	12 [28]	42.9
No	15 [28]	53.6
Used condom during last casual sex		
Yes	10 [29]	34.5
No	18 [29]	62.1
Why didn't you use a condom?		
None available	13 [18]	72.2
Frequency of condom use with casual partners in last 12 months		
Sometimes	15 [29]	51.7
Never	12 [29]	41.4

Table 9 summarizes other reported sexual experiences. About one-quarter of women surveyed (23.2%) said that they had anal sex in the past 12 months. Of these women, 40% said they had anal sex with a client, and 33% said it was with a spouse or boyfriend. Only 14% of women who reported having anal sex said that they used a condom.

Over a third (38.2%) of women said that they engaged in group sex in the last 12 months. Group sex was usually between the participant and two or more clients (54%), followed by

two or more casual partners (54.2%). Only one-quarter reported using a condom the last time they had group sex.

Two-thirds (66.7%) of women surveyed said that they had been forced to have sex against their will at some stage in their life. Twenty-six percent of the women who had ever been forced to have sex said that it was neighbor who forced them, and another 24% said it was their partner.

Table 9: Other Sexual Experiences

Sex Other	**n [N]**	**%**
Had anal sex in last 12 months?		
Yes	16 [69]	23.2
No	53 [69]	76.8
What was your relationship with this person?		
Client	6 [15]	40
Spouse/Boyfriend	5 [15]	33.3
Casual	3 [15]	20
Used a condom during last anal sex?		
Yes	2 [14]	14.3
No	12 [14]	85.7
Had group sex in last 12 months?		
Yes	26 [68]	38.2
No	42 [68]	61.8
Who was involved?		
2 or more clients	13 [24]	54.2
2 or more casual partners	7 [24]	29.2
2 or more sex workers	3 [24]	12.5
Used a condom during last group sex?		
Yes	6 [24]	25.0
No	18 [24]	75.0
Ever been forced to have sex against your will?		
Yes	46 [69]	66.7
No	23 [69]	33.3
What was your relationship to the last person who forced sex?		
Neighbour	12 [46]	26.1
Partner	11 [46]	23.9
Stranger	9 [46]	19.6
Other relative	9 [46]	19.6
Client	4 [46]	8.7

Table 10 shows the women's knowledge and experiences of STI. Over half of the women (56.7%) said they had heard of STI. Only 3% said they had ever been diagnosed with and STI.

However, three-quarters of the women (75.1%) said that they had experienced possible symptoms of STI over the past 12 months; the most common of which was pain or burning during urination (66.7%), followed by unusual discharge from the vagina (50%). Of the 75% of women who experienced some type of symptom, only 4% sought treatment for these symptoms. The main reason for not seeking treatment was because they did not think it was serious.

Table 10: STI Knowledge and Experiences

STI Knowledge and Experiences		
Have you heard of STI?	**n [N]**	**%**
Yes	38 [67]	56.7
No	29 [67]	43.3
Have you ever been diagnosed with and STI?		
Yes	1 [38]	2.6
No	37 [38]	97.4
Experienced any of the following symptoms in last 12 months?		
Discharge	34 [68]	50.0
Sores or uicers	13 [65]	20.0
Pain or burning	46 [69]	66.7
Did you seek treatment?		
Yes	2 [52]	3.8
No	50 [52]	96.2
Why did you not seek treatment		
Didn't think it was serious	31 [48]	64.6

Table 11 summarizes reported alcohol and drug use. Slightly less than half of the participants (42.6%) reported not drinking any alcohol in the past 12 months. Of those who did drink, 22% said they drank 2-3 times per week, with 13% drinking 4 or more times per week. The usual number of drinks consumed during a normal drinking session was 1 to 2 drinks (51.3%). However, 28.2% reported binge-drinking (5 or more drinks) as normal drinking behavior. Indeed, 53.8% of women who drink said they engaged in binge drinking on a weekly basis.

Most of the women reported having ever tried tobacco or betel nut. Less than half reported ever trying Marijuana (44.8%), snuff (42%) or inhalants (29%). Thirty-nine percent of women said they had a permanent tattoo, which was most commonly given by a friend or relative (72%). Of these women, more than half (55.6%) said the tattoo was performed with a dirty needle.

Table 11: Alcohol and Drug Use

Alcohol use	**n [N]**	**%**
How often did you drink alcohol in the past 12 months?		
Never	29 [68]	42.6
2-3 times per week	15 [68]	22.1
Monthly or less	10 [68]	14.7
4 or more times per week	9 [68]	13.2
2 to 4 times per month	5 [68]	7.4
# drinks on a typical occasion?		
1 or 2	20 [39]	51.3
3 or 4	7 [39]	17.9
10 or more	7 [39]	17.9
5 to 9	4 [39]	10.3
How often did you binge drink?		
Weekly	21 [39]	53.8
Daily or almost daily	8 [39]	20.5
Monthly or less	7 [39]	17.9
Drug Use		
Have you ever tried		
Tobacco	52 [67]	85.1
Betel Nut	60 [69]	87.0
Marijuana	30 [67]	44.8
Snuff	29 [69]	42.0
Inhalants	20 [69]	29.0
Permanent tattoo	27 [69]	39.1
Perfomed by whom?		
Friend or relative	18 [25]	72.0
Was the needle used by somebody else before hand?		
Yes	15 [27]	55.6
No	12 [27]	44.4

Table 12: HIV Knowledge

HIV Knowledge	**n [N]**	**%**
Heard of HIV?		
Yes	47 [61]	77.0
No	14 [61]	23.0
Do you know anyone infected with HIV?		
Yes	20 [47]	42.6
No	27 [47]	57.4
Correctly answered the following questions:		

1. A person can reduced chances of HIV infection by using a condom correctly	49 [68]	72.1
2. A person can get infected with HIV by sharing a meal	38 [67]	56.7
3. A person can get infected with HIV by mosquito bite	28 [68]	41.2
4. A person can reduce changes of HIV infection by having one, uninfected faithful partner	53 [69]	76.8
5. A health looking person can have HIV	50 [69]	72.5
6. A person can reduce chances of HIV infection by abstaining from sex	58 [67]	86.6
7. A person can get HIV by injecting with contaminate needles	55 [68]	80.9
8. A women can pass on HIV to her unborn baby	56 [69]	81.2
9. A woman can pass on HIV to her baby via breast feeding	56 [69]	81.2
10. A person can HIV via saliva	43 [69]	62.3
11. Only gay men get HIV	28 [69]	40.6

Table 12 summarizes HIV knowledge. Overall, 77% of the women had ever heard of HIV. Of these women, 43% said they knew somebody who was infected with HIV. The number of women with correct knowledge about HIV was calculated by identifying the proportion of women who correctly answered all of the first 5 questions in the table above. The proportion of women with correct HIV knowledge was 12.9%. This was lower than reported in the Pattiw Islands Survey, in which 24% of males and females had correct HIV knowledge. In general, the women in the current survey had better knowledge of HIV prevention (58.5%) than they did of HIV transmission (14.7%).[3] This is similar to the findings from the Pattiw Island survey.

Table 13 shows the experiences of HIV testing amongst the women surveyed. Three quarters (73.5%) believed that it was possible to receive a HIV test in their community. Despite this, only 17% had ever been tested prior to the survey. For most of the women who had been tested (87.5%), their last test had been conducted over 1 year ago. Sixty-two percent said their test was voluntary, and 75% received VCCT. Only 37.5% said they knew the result of their test.

Table 13: HIV Testing Experiences

HIV testing	**n [N]**	**%**
Is it possible for someone in your community to be tested?		
Yes	50 [68]	73.5
No	14 [68]	20.6
Ever been tested		

[3] Knowledge of HIV prevention was calculated as the proportion of women who correctly answering questions 1, 4 and 6 in table 12. Knowledge of HIV transmission was calculated as the proportion of women who correctly answering questions 2, 3, and 5 in table 12.

Yes	8 [47]	17.0
No	39 [47]	83.0
How long ago was your last test?		
Over 1 year ago	7 [8]	87.5
Was it voluntary?	5 [8]	62.5
Received result of HIV test	3 [8]	37.5
Received VCCT	6 [8]	75.0

Figure 1 shows the proportion of women who had heard HIV messages through various sources. The most common sources of awareness raising were billboards and posters, followed by radio, brochures, and outreach workers. Despite a peer education program for sex workers already in place in Chuuk, only half (49%) of the women reported hearing about HIV from a peer educator. However, it may be possible that those who answered 'outreach worker' were also referring to a peer educator.

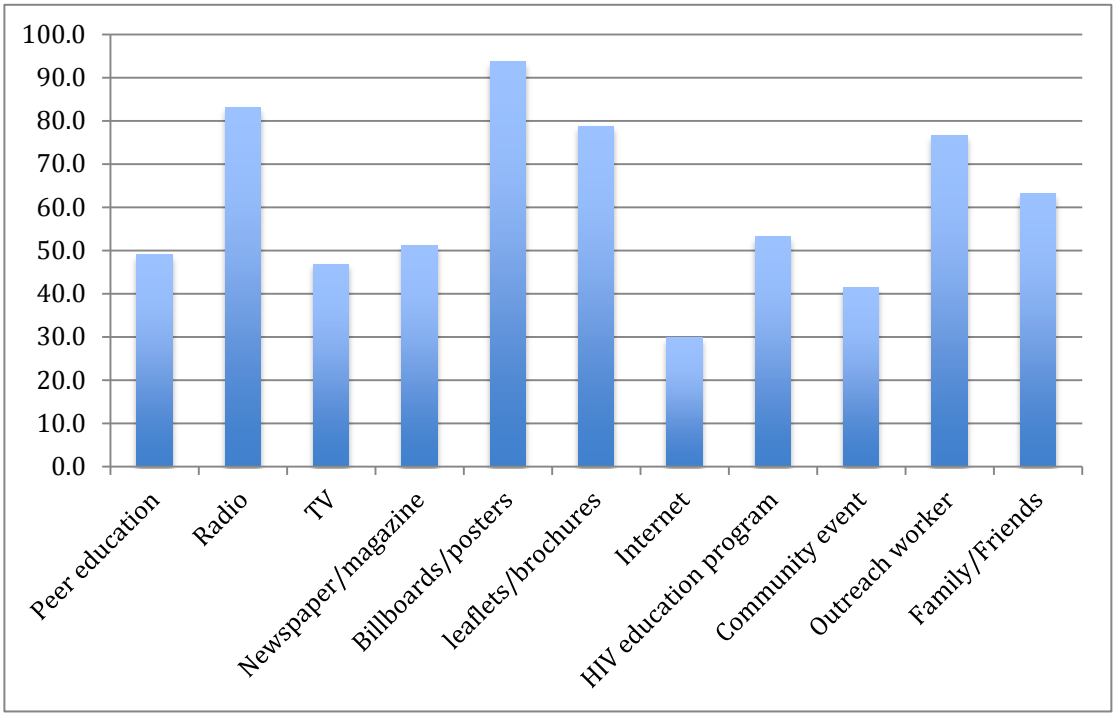

Figure 1: Proportion of women who had heard of HIV through various sources.

Table 14 shows the participants responses to statements regarding HIV stigma and discrimination. Positive attitudes of people living with HIV were reported by 22.8% of the

women surveyed[4]. This was similar to the findings from Pattiw Islands in which 18% of participants reported positive attitudes towards people living with HIV.

Table 14: Stigma and Discrimination

Stigma and Discrimination	Strongly Agree/Agree		Strongly disagree/Disagree	
	n [N]	%	n [N]	%
Willing to share a meal	16 [46]	34.8	19 [46]	41.3
Willing to buy food from a shopkeeper	17 [46]	37.0	29 [46]	63.0
Willing to care for relative	38 [46]	82.6	8 [46]	17.4
Keep family member status a secret	38 [46]	82.6	8 [46]	17.4
All newcomers should be tested	43 [46]	93.5	3 [46]	6.5
HIV positive people's names should be displayed in public	15 [46]	32.6	31 [46]	67.4
HIV positive people should live apart from the general population	33 [46]	71.7	13 [46]	28.3
Knowingly passing HIV should be a criminal offence	38 [43]	88.4	5 [43]	11.6

Table 15: STI Test Results

	Chlamydia		Gonorrhea		HIV		Syphilis	
Age Group	n [N]	%	n [N]	%	n [N]	%	n [N]	%
15 to 24	8 [49]	16.3	1 [49]	2.0	0 [49]	0	0 [49]	0
25+	4 [21]	19.0	1 [21]	4.8	0 [21]	0	0 [21]	0
Total	12 [70]	17.1	2 [70]	2.9	0 [70]	0	0 [70]	0

Overall there were no positive cases of HIV or Syphilis detected amongst the women. However, 17% of the women tested positive for Chlamydia, and 3% tested positive for gonorrhea. The rates of both Chlamydia and gonorrhea were slightly higher amongst those aged 25 years and older, although this difference was not significant.

[4] Positive attitudes were calculated as the proportion of women answering 'agree' or 'strongly agree' to all of the first three statements in table 14.

3. Conclusion and Recommendations

The current survey report provides an opportunity for bringing the issue of women who exchange sex for money or goods in Chuuk out into the open for discussion. Additionally, the survey has produced some new information about sex work in Chuuk that was not previously known, as well as help to dispel some myths about women who exchange sex for money or goods in Chuuk.

The results of the survey provide three main lessons for the Chuukese community regarding women who exchange sex for money or goods and the associated health issues. Firstly, the survey has helped to further define the nature of sex work in Chuuk, thereby clearly identifying the context in which sex work is occurring, as well as the key health and social issues associated with it. An important part of this context is the finding that sexual activity, including in exchange for sex and goods, is occurring amongst single young women, including teenagers. This finding provides important legal, cultural and health challenges for Chuuk that require collaboration with health, community, political, cultural and religious leaders. The context of sex in exchange for money or goods in Chuuk also has lessons for the HIV team, in particular regarding how condoms can be made more readily available.

The second lesson is that sex work in Chuuk involves high levels of risky sexual activities, including multiple sex partners, low condom use, low health seeking behavior regarding testing and treatment, and experiences of other high risk sex activities including forced sex and anal sex. Accompanying these issues is a discrepancy between health knowledge and health behavior, such as indicated by high knowledge yet low use of condoms. Such issues provide important challenges to Chuuk Health Services for ensuring that suitable health services are available for women who exchange sex for money or goods that are free from stigma and discrimination and offer a high level of confidentiality. These issues also present a challenge for health promotion activities, highlighting that such activities must move beyond the provision of health information to more effectively supporting behavior change.

Finally, the survey results provide some evidence that highlights how broader social and economic determinants impact on young women's decisions to exchange sex for money or goods, as well as their health status. While addressing these determinants may be largely outside of the scope of a peer education project, the project can be aware of such issues and seek to identify appropriate places for referral. For example, in response to the finding that most of the women selling sex for money are doing so because they do not have any other source of income, the peer educator project may be able to identify and link women to other projects aimed at income generation for women. Additionally, the peer educator project can act as advocates on behalf of the sex workers by raising awareness of these broader social and economic determinants, including stigma and discrimination, in communities and with government bodies.

Recommendations

The survey findings provide further evidence and support for the aims and objectives of the Chuuk Sex Worker project funded from 2010-2012 by the Response Fund. In particular, the findings reinforce the following objectives and activities:

1. The establishment of a supportive network for sex workers on Weno.
2. Efforts to increase the proportion of sex workers regularly using condoms.
3. Actions aimed at increasing the knowledge of STI and the possible symptoms of STI, linked to encouraging testing and treatment for these symptoms.

In addition, the following recommendations are suggested for enhancing the impact of the sex worker peer education project:

4. Review behavior change strategies currently/previously used in the peer education program and identify how they can be adapted to better promote behavior change. In particular, the survey data indicates a gap between knowledge and behaviors. Therefore behavior change strategies must consider how these contradictions can be overcome. In exploring what activities can be done, "education" sessions with members of the sex worker network should consider a 'problem solving approach' aimed at developing the capacity of sex workers to explore and indentify strategies for overcoming these contradictions between knowledge and behavior. Existing skills from Stepping Stones are likely to be applicable here.
5. Consider how the peer educator project can support advocacy and change regarding the social and economic determinants of sex work and health. Two possible actions are suggested for exploration. Firstly, providing space and opportunities for women to share their personal stories of sex work with each other can help in identifying and examining the broader determinants of sex work and health that they have in common. Secondly, compiling and using a referral list of possible programs, projects and organizations that may help address these broader determinants may also be considered.
6. In light of the two recommendations above, training should be provided to peer educators in order to develop their capacity for conducting problem solving and empowerment based education sessions.