

Second Generation Surveillance of
Antenatal Women, Seafarers,
Policemen and Youth
KIRIBATI

2008



Secretariat of the
Pacific Community

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List of Abbreviations

AIDS	Acquired Immune Deficiency Syndrome
ANC	Antenatal Clinic
BSS	Behavioural Surveillance Survey
BTC	Betio Town Centre
C.trachomatis	Chlamydia trachomatis
FHI	Family Health International
GFATM	Global Fund to Fight AIDS, Tuberculosis and Malaria
HIV	Human Immunodeficiency Virus
HSS	HIV Surveillance Survey
LCI	Lower Confidence Interval
MDG	Millennium Development Goals
MOH	Ministry of Health
N.gonorrhoeae	Neisseria gonorrhoea
NRL	National Reference Laboratory
PCR	Polymerase Chain Reaction
PICTs	Pacific Island Countries and Territories
SGS	Second Generation HIV Surveillance
SPC	Secretariat of the Pacific Community
SPS	STI Prevalence Surveillance
STI	Sexually transmitted infection
TPPA	Treponema Pallidum Particle Agglutination test
TUC	Tarawa Urban Centre
UNGASS	United Nations General Assembly Special Session
UCI	Upper Confidence Interval
VCCT	Voluntary and Confidential Counselling and Testing

Executive summary

The Republic of Kiribati is an island nation in the Pacific Ocean comprised of 32 atolls and one island (Banaba). Although the islands are widely dispersed over 3,500,000 square kilometres, it is estimated that one third of the population reside on one island, South Tarawa, the capital of Kiribati. The local people are known as I Kiribati and are of Micronesian ethnicity.

This report presents the findings of the second round of Second Generation Surveillance (SGS) surveys conducted in Kiribati in 2008. The first round of SGS was conducted 2004-05 and included two population groups, Antenatal women and Seafarers. In 2008, surveillance included a sexually transmitted infection (STI) prevalence survey (SPS) survey of Antenatal women, Human Immunodeficiency Virus (HIV) surveillance surveys (HSS) of Seafarers and Policemen and a behavioural surveillance survey (BSS) for youth.

Antenatal women were consecutively recruited from Prenatal Clinics in Betio Town Centre and Tarawa Urban Centre from March to June 2008. Nursing staff at the clinics administered a standardised questionnaire, and collected blood and urine specimens.

All seafarers attending for first aid training (refresher course prior to going to sea) at the Marine Training Centre at South Tarawa were invited to participate, and none refused to take part in the survey.

Policemen attending for monthly meetings at the central police station and police headquarters between March and June 2008 were recruited. While no policemen refused to participate in the survey 50 men declined to have blood taken to test for HIV antigen, Hepatitis B surface antigen and Syphilis.

Youth were opportunistically recruited from 'hot spots' from Betio Town Centre (BTC) and Tarawa Urban Centre (TUC) from March to June 2008. Youth volunteers administered a standardised questionnaire to all participating youth. No youth declined to participate.

Eight youth who identified themselves as transgender were excluded from the analysis, as numbers were too small to present statistically valid information.

Key findings for Antenatal Women

The STI Prevalence Survey included 206 women aged 15 to 46 years.

- Most women (82%) first attended for antenatal care in the second or third trimester of pregnancy.
- For women aged 15 to 24 years, only 44% correctly answered all five baseline questions on HIV transmission and major misconceptions.
- Less than one in four (25%) of women who reported potential STI symptoms had sought advice at a hospital or health clinic.
- After Hepatitis B, Chlamydia was the most commonly detected STI at 11.2% overall (15 to 24 years: 13%, 25 to 46 years 8%, however the difference is not significant).
- The mean age of first sex was 18.7 years for women aged 15 to 24 years and 20.5 years for women aged 25 to 46 years.
- Only eight women (4%) reported that they had ever had a HIV test and received their results.
- Twenty three percent of women aged 15 to 24 years and 34% of women aged 25 to 46 years reported that their pregnancies had not been planned. Of these, 71% reported that they did not use any form of contraceptive in the three months prior to becoming pregnant.
- Over 80% of women reported having only one sexual partner in the last 12 months.
- Less than one in five (19%) of antenatal women reported that they had ever used a condom, the majority of those who had using male condoms.
- Less than one in ten women (9%) reported having two simultaneous sexual relationships in the previous 12 months.
- Only three women (1.5%) reported either receiving or paying money, goods or favours in exchange for sex in the last 12 months, however twelve women (6%) refused to answer at least one of these questions.
- Over 90% of women indicated that they had heard of HIV or AIDS.

- While most HIV knowledge questions were correctly answered by close to 90% of women, 40% of women believed incorrectly that HIV could not be acquired through mosquito bites.
- Less than 60% of women reported that they would be willing to have casual contact with a person who has HIV and was not sick.
- 70% of women reported that they believed they could get a confidential HIV test in the community.
- HIV antigen was not detected among ANC women.

Key Findings for Seafarers

The HIV Prevalence Survey included 160 seafarers aged 19 to 49 years.

- Thirteen seafarers (9%) reported having at least one STI symptom in the last month and just under half (46%) had sought medical advice.
- Less than one in ten seafarers (9%) reported using a condom every time they had sex in the last 12 months.
- Of those who had had sex in the last twelve months the mean number of sexual partners was 3.2 (range 1-27).
- Over half (58%) of the seafarers who had travelled off island in the last 12 months reported that they had sex with someone other than their partner.
- Almost half (47%) of the seafarers who had sex in the last 12 months reported they had paid money in exchange for sex and one quarter reported giving goods or favours in exchange for sex (23%).
- The reported mean age of first sexual intercourse was 18 years for Seafarers.
- Only 44% of men who had had sex in the last 12 months reported having only one sexual partner. 27% reported four or more partners, including 4% who reported 11 or more partners.
- Ninety nine percent of seafarers reported that they had heard of HIV/AIDS prior to taking part in the survey.
- Only one in five seafarers (18%) agreed or strongly agreed that a person should be able to keep their HIV status private.

- The majority of seafarers reported that they would be willing to care for a family member who was sick with HIV in their own home (87%).
- Nearly 60% of Seafarers aged 25 to 49 years reported that they had a HIV test in the last 12 months and knew their result.
- Over one quarter of Seafarers tested were found to have the Hepatitis B antigen (27%) although none were found to have HIV.

Key Findings for Police

The HIV Prevalence Survey included 196 policemen 19 to 49 years.

- Forty Nine percent of men reported having more than one sexual partner in the last 12 months, including 15% who reported four or more partners.
- Over one third (36%) of Policemen reported that they had ever had sex with someone other than their partner while off island.
- Twelve Policemen (7%) reported that they had taken part in some form of transactional sex in the last 12 months, however only two used a condom every time.
- Eleven Policemen reported having sexual contact with another man in the last 12 months and none used a condom every time.
- Of policemen reporting having sex in the last twelve months the mean number of sexual partners was 2.1 (range 1- 10).
- The reported mean age of first sexual intercourse was 17.9 years for Policemen.
- Only 7% of Policemen reported using a condom every time they had sex in the last 12 months, and one in eight (12%) used a condom the last time that they had sex.
- Knowledge of HIV was high, with close to nine in ten correctly answering each question on transmission and common fallacies about how HIV can be acquired, except for transmission through mosquito bites (75%).
- Four in five Policemen (80%) reported that they would be willing to care for a family member with HIV in their own home.

- Only one quarter of Policemen agreed or strongly agreed that a person should be able to keep their HIV status private (27%).
- Six in ten Policemen (59%) reported that they had ever had a HIV test, and half were tested within the last 12 months.
- No new HIV infections were identified in the study..
- One in eight policemen tested positive on Hepatitis B antigen testing (17%).

Key Findings for Youth

The Behavioural Surveillance Survey included 176 participants aged 15 to 24 years.

- Over one third of males (35%) and 46% of females had participated in peer education and one quarter of both sexes reported participating in a HIV educational program.
- Only one in thirteen youth (8%) reported using a condom the first time they had sex. All reported using male condoms.
- For youth who reported having sex in the last 12 months, just over one quarter reported using a condom the last time they had sex (27%).
- Over a quarter (27%) of sexually active youth reported participating in transactional sex and 18% of males had had sex with another male in the past twelve months.
- Binge drinking (more than five standard drinks in one session) was common amongst both male and female youth (86% and 62% respectively of those reporting ever consuming alcohol).
- Four in five males (81%) and one third of females reported ever having sexual intercourse.
- Forty six percent of males and one third of females (30%) reported having sex in the previous 12 months.
- The average number of partners in the last 12 months was 3.6 for males and 3.3 for females.
- Of the youth reporting having sex in the last twelve months, 79% of males and 44% of females had more than one sexual partner.

- One third of sexually active youth reported overlapping sexual relationships (29%), and six youth (9%) reported having group sex in the last 12 months.
- Nearly one quarter of sexually active youth (23%) reported that they had been off island in the last 12 months and had sex with someone other than their usual sexual partner.
- Over nine in ten males (94%) and females (91%) reported that they had heard of HIV or AIDS prior to taking part in the survey.
- Each HIV knowledge questions was correctly answered by seventy to eighty percent of youth.
- Half of males (48%) and 39% of females correctly answered all five baseline questions on HIV transmission and major misconceptions.
- Fifty two percent of males and two thirds of females (67%) either agreed or strongly agreed that a person should be able to keep his/her HIV status private.
- Over one third of males (38%) but only 1 in 7 females (14.5%) reported ever having a HIV test. Of these approximately 90% had been tested in the last year and the majority of these knew their result.

Recommendations

A number of the recommendations that were made following the first round of SGS surveys in 2004/05 are still valid following this more recent round.

- Implement staggered surveys when two or more population groups are to be surveyed. Due to limited personnel it is difficult for PICTs to manage several surveys simultaneously. If surveys as staggered logistical or technical problems will be more readily identified and resolved, and personnel will have increased opportunity to gain sustainable skills.
- Use probabilistic sampling strategies which help to ensure representative samples and statistically valid estimates from surveys. When convenience sampling is used, there is no way of verifying whether the sample is representative of the population of interest. Future surveys therefore cannot be reliably compared with previous findings. Probabilistic sampling can be achieved even when sampling frames (population lists) are unavailable.

- Include high risk groups in future SGS surveys, for example sex workers or men who have sex with men. This will require formative research e.g. group mapping, estimation of population size and prevalence of risk behaviours in the population(s) of interest. Generic questionnaires can then be modified to include relevant behaviours and use appropriate language and terms.

Other recommendations based on findings:

Other recommendations based on findings:

- Use findings from the surveys to improve HIV prevention activities, including educational activities targeting groups at greater risk for infection.
- Present data to key personnel who can implement changes in policy and programs.
- Modify existing activities and programs using findings from surveys, e.g. sexual behaviours, condom use, knowledge and attitudes on HIV, access to testing for HIV and STIs
- Continue with STI screening programs implemented in 2008

Introduction

Background Kiribati

The Republic of Kiribati is an island nation in the Pacific Ocean comprised of 32 atolls and one island (Banaba). Although the islands are widely dispersed over 3,500,000 square kilometres, it is estimated that one third of the population reside on one island, South Tarawa, the capital of Kiribati. The local people are known as I Kiribati and are of Micronesian ethnicity.¹

In July 2008 the population of Kiribati was estimated at 110, 356, with 38% of people aged 0 to 14 years, 59% aged 15 to 64 years and 3% aged 65 years and older. The estimated population growth rate was 2.2% in 2008.²

Kiribati has one referral hospital, the Tungara Central Hospital which is located on South Tarawa. There are two other smaller hospitals, the Betio Hospital located on Betio (a small islet connected to the main island of South Tarawa by a causeway) and Kiritimati Hospital located on the Kiritimati Island (formerly known as Christmas Island).

HIV and STIs in Kiribati and the Pacific

The first case of Human Immunodeficiency Virus (HIV) was diagnosed in a male from Kiribati in 1991. Initially HIV was primarily confined to seafarers, their wives and children, but it has now been diagnosed in other population groups. At the end of 2008 there were 52 people known to have HIV in Kiribati, of which the majority was male. Of these, 23 people have subsequently died from AIDS, four of whom were children. The main mode of HIV transmission has been through heterosexual contact, followed by mother to child transmission.

Population groups considered to be vulnerable to HIV in Kiribati include young people, seafarers, seafarer's wives and their newborn babies, and those who exchange sex for money or resources.³

The first round of Second Generation Surveillance (SGS) surveys were conducted in Kiribati in 2004/2005 and included a sexually transmitted infection (STI) prevalence survey (SPS) of antenatal women and an HIV prevalence survey (HSS) among seafarers. No cases of HIV were diagnosed among either of these population groups. However, 13% of antenatal women were found to have a Chlamydia infection and 2.1% were found to have had exposure to Syphilis.⁴

Findings from SGS conducted in five other Pacific Island Countries and Territories (PICTs) at that time also found a high prevalence of STI's among antenatal women, of which Chlamydia was the most commonly detected. The prevalence of Chlamydia ranged from 6% to 29% for women from the six PICTs, and with estimates highest among women aged less than 25 years.^{4,5} As STIs can result in serious complications in adults and the babies of infected women, these surveys identified the need for improving STI surveillance and treatment in the Pacific.

Although the reported HIV prevalence in the general community is currently very low in all PICTs except Papua New Guinea (PNG), the risk of increased prevalence is still a major concern. This is because HIV is acquired through the same mechanisms as other STIs and blood borne infections which have already been shown to be prevalent in the PICTs. Two other important factors are that persons who already have an STI are known to be more susceptible to the transmission of HIV and research has shown a high prevalence of risk behaviours for acquiring HIV in the Pacific.⁷

The risk of the increased prevalence of HIV and Acquired Immunodeficiency Syndrome (AIDS) has resulted in increased attention being given to STIs and their control as an intervention to limit the spread of an HIV epidemic. One recent intervention has included the introduction of pilot programs for screening adults for Chlamydia, Gonorrhoea and Trichomoniasis in a number of PICTS in 2008. These programs will help to reduce the prevalence of STI's and facilitate ongoing surveillance of the prevalence these infections.

Kiribati has an ongoing commitment to increasing the quality of life for people who have HIV and to help reduce the prevalence of HIV in the community. The current Strategic Plan for 2008 through to 2011 includes four main areas for attention:

1. Strengthening and coordination of the national multi-sector response to STI/HIV and AIDS
2. Development and implementation of policy and guidelines on STI and HIV prevention, detection, care, and treatment
3. Education and prevention
4. Bloods safety and occupational safety

SGS background

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 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 subgroups, 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.⁸

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 STI's
- HIV serosurveillance
- HIV and AIDS Case reporting
- Screening donated blood.

Kiribati conducted SGS surveys in four population groups. All participants completed a questionnaire which provides information 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 (UNSW) in Australia, the World Health Organization (WHO) and the Secretariat of the Pacific Community (SPC).

The behavioural questionnaires are very 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.

Methodology and Interpretation of Survey Results

One of the most important reasons for conducting population based health surveys is to be able to describe the characteristics of a population and make comparisons between subgroups of interest. To facilitate statistically valid comparisons, data is normally weighted to the population of interest (for example youth aged 15 to 24 years), so that comparisons can be made on the basis of factors such as age, sex and area of residence.

As non-probabilistic sampling techniques were used to when conducting these surveys, it is not possible to determine whether samples are truly representative of entire populations of interest and the data have not been weighted to population(s).

No statistical tests have been performed for the presented data unless specifically shown in tables or stated in text, therefore comparisons between population subgroups are general trends and observations, and should not be taken to indicate statistically significant differences

The information in this report is presented as percentages or prevalence of individuals with a particular characteristic or behaviour. Prevalence differs from incidence, which is used to describe of the number of *new* cases of a condition in the population.

Where confidence intervals are presented in this report, the 95 percent confidence range has been used. This is the range between which the true population estimate is considered to be contained in 95 out of 100 times.

When confidence intervals overlap, this indicates that there is probably no difference in the estimates being compared. If the confidence intervals do not overlap, then the estimates are considered to be significantly different.

Confidence intervals are considered to be a conservative measure of difference. The Chi Square statistic is a more powerful statistical test than the confidence intervals and less likely to fail to detect significant differences if truly evident. Chi square tests

have been used to identify significant differences associated with demographic and risk factors for Chlamydia infections in antenatal women.⁹

Specimen Collection and testing

STI prevalence surveys involved testing for Chlamydia and Gonorrhoea, Syphilis, Hepatitis B surface antigen and HIV antigen. HIV prevalence surveys involved testing for Syphilis, Hepatitis B surface antigen and HIV antigen.

Participants who took part in SPS surveys were asked to provide a 10-15 ml first catch urine sample. Specimens were transferred to the central laboratory at the Tungara Central Hospital and frozen at -20 degrees Celsius. 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 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 Polymerase Chain Reaction (PCR) assay using primers and probes directed at a 90 base pair region of OPA gene.⁹

For participants involved in SPS and HSS surveys, a 10 ml blood sample was taken for testing. Screening for Syphilis by Rapid Plasma Reagin (RPR) and Treponema Pallidum Particle Agglutination test (TPPA), and for Hepatitis B and HIV by Enzyme Linked Immunosorbent Assay (ELISA) (Determine and Serodia).

Blood specimens were tested in the at the National Laboratory at the Tungara Central Hospital, excluding HIV confirmatory tests, which were sent to the Regional Reference Laboratory, Centre for Communicable Disease Control, Maitaika House, Suva, Fiji.

Table 1 Specimens collected and tests performed, SGS, Kiribati, 2008

Infection	Specimen	Tests
Chlamydia	Urine	PCR Assay
Gonorrhoea	Urine	PCR Assay
Syphilis	Blood	TPPA (if RPR was reactive) RPR RPR titre (if RPR was reactive). Cases were recorded as positive if titres were greater than or equal to 1:8.
Hepatitis B	Blood	Determine
HIV antibodies	Blood	Determine and Serodia
HIV Confirmatory	Blood	Confirmed according to the regional algorithm

Data analysis

Statistical analysis was performed using Epi Info Version 3.5.1, SPSS Version 16.0 and Excel 2007. The Chi Square test was used to determine associations for the presence or absence of Chlamydia and known risk factors.

STI Prevalence Survey of Antenatal clinic attendees

Survey Methodology

Table 2 shows an overview of the survey methodology used for the Antenatal women's survey conducted in Kiribati from March to June, 2008.

Table 2: Overview of the Survey Methodology, Antenatal Women

Methodology	Survey details
Population	<i>Antenatal women</i>
Survey type	<i>STI Prevalence Survey (SPS)</i>
Sampling method	<i>Consecutive recruitment</i>
Inclusion criteria	<i>Women attending the antenatal clinic for the first time for the pregnancy or had not been tested for an STI during the pregnancy</i>
Target Sample Size	<i>200</i>
Final Sample Size	<i>206</i>
Interview location(s)	<i>Prenatal Clinic(s) in Betio Town Centre (2), Tarawa Urban Centre (4)</i>
Administration of the survey	<i>Interviewer administered by nurses from antenatal clinics</i>
Type of consent	<i>Verbal. Interviewers signed a declaration not to release any information without the participant's approval.</i>
Time required for interview	<i>20-25 minutes</i>
Data collection period	<i>March to June 2008</i>

Eligibility criteria

Women were consecutively recruited from Antenatal Clinics from the Betio Town Centre and Tarawa Urban Centre if they were attending for the first time during their pregnancy or had not been tested for an STI during their pregnancy. No women declined to participate in the survey and 206 women were recruited for the survey.

Results

ANC survey

Demographic characteristics

Table 3 shows the demographic characteristics of women who took part in the survey.

Table 3: Reported Demographic Characteristics, Antenatal Women, Kiribati, 2008

	N	%		N	%
Age group (years)			Education		
15 - 24	111	53.9	Primary	26	12.6
25 - 46	95	46.1	Junior High School	24	11.7
Total	206	100	Senior High School	139	67.5
			Higher	17	8.3
			Total	206	100
Place of Birth			Occupation		
Kiribati ¹	193	94.6	Not employed	113	55.4
Nauru	5	2.5	Housewife/home duties	43	21.1
Aononraina	2	1.0	Other	28	13.7
Tuvalu	2	1.0	Clerical/Office work	20	9.8
Other ²	2	1.0	Total	204	100
Total	204	100.0			
Ethnicity					
Micronesian	203	98.5			
Polynesia	2	1			
Other	1	0.5			
Total	206	100			

¹ Includes Banaba island, ² One woman from China and one from Vanuatu

Just over half of the women were aged 16 to 24 years (54%), and the majority reported they were born in Kiribati (95%) and of Micronesian ethnicity (99%).

Overall, three quarters of women surveyed had completed senior high school, however approximately one in eight women reported that their highest level of education completed was primary school. The latter was more common for women aged 25 to 46 years (21%) compared to those aged 15 to 24 years (5%).

Approximately three quarters of women reported that they were either not employed (55%) or a housewife (21%). Teaching was the most commonly reported other occupation (10 women), followed by nursing (four women).

Table 4 shows the reported marital status and living arrangements for antenatal women by age group.

Table 4: Reported Marital Status and Living Arrangements, Antenatal Women by Age Group, Kiribati, 2008

	15-24		25-46	
	N	%	N	%
Marital Status				
<i>Ever married</i>	102	92.7	90	95.7
<i>Currently married</i>	100	90.9	87	92.6
Still in a relationship with the father of your unborn child				
	108	97.3	90	95.7
Living Arrangements				
<i>Living with your spouse</i>	93	84.5	86	91.5
<i>Living with a sex partner (non-married)</i>	9	8.2	2	2.1
<i>Not living with any sex partner</i>	8	7.3	6	6.4

Most women reported that they were currently married. The average age of first marriage was 19.1 years for women aged 15 to 24 years (Range: 14 to 26 years) and 20.7 years for women aged 25 to 46 years (Range: 15 to 34 years). The legal age for marriage in Kiribati is 18 years, but early marriage sometimes takes place, mainly in the outer islands.

The vast majority of women were still in a relationship with the father of their unborn child and most reported living with either a spouse or sex partner.

Pregnancy characteristics

Table 5 shows reported information on number of previous pregnancies, miscarriages, live births and living children, and the current stage of pregnancy (trimester).

Table 5 Pregnancy Characteristics, Antenatal Women by Age Group, Kiribati, 2008¹

	15-24		25-46	
	N	%	N	%
Number of previous pregnancies				
0	39	39.4	11	15.3
1	38	38.4	13	18.1
2	20	20.2	15	20.8
3	2	2	9	12.5
4 or more	0	0.0	24	33.4
<i>Total</i>	99	100.0	72	100.0
Number of miscarriages				
0	88	85.4	70	77.8
1	15	14.6	18	20
2 or more	0	0.0	2	2.2
<i>Total</i>	103	100.0	90	100.0
Number of live births				
0	61	59	15	16.9
1	27	26	18	20.2
2 or more	15	0.0	56	62.9
<i>Total</i>	103	100.0	89	100.0
Number of living children				
0	63	60.6	15	15.8
1	28	26.9	20	21.1
2	12	11.5	17	17.9
3	1	1	14	14.7
4 or more	0	0.0	29	30.5
<i>Total*</i>	104	100.0	95	100.0
Trimester of current pregnancy				
1	21	18.9	12	13.2
2	65	58.6	53	58.2
3	25	22.5	26	28.6
<i>Total</i>	111	100.0	91	100.0

Four in ten women aged 15 to 24 years reported that they had never been pregnant before (39%) and a further 38% reported only one previous pregnancy. In contrast, nearly nine in ten women aged 25 to 46 years (85%) reported having at least one previous pregnancy.

¹ The women aged 15 to 24 years who answered the questions on number of live births and number of living children differed across the two questions, and subsequently the numbers of women who reported having zero live births and zero living children are not consistent.

Fifteen percent of women aged 15 to 24 years and one in five women aged 25 to 46 years (22%) reported ever having a miscarriage and the majority these women reported having only one miscarriage.

Six in ten women from both age groups reported that they were in the second trimester of pregnancy, while 25% reported that they were into the third trimester of pregnancy.

One quarter of women aged 15 to 24 years (23%) and one third aged 25 to 46 years (34%) reported that their pregnancies had not been planned. Of these, eight in ten aged 15 to 24 years (81%) and six in ten aged 25 to 46 years (60%) also reported that they did not use any form of contraceptive in the three months prior to becoming pregnant.

Sexual behaviours

Table 6 shows reported mean and range of age at first sex, number of lifetime sex partners and in the last 12 months for antenatal women by age group.

Table 6: Reported Sexual History, Antenatal Women by Age Group, Kiribati, 2008

	15-24		25-46	
	Mean	Range	Mean	Range
Age at first sex	18.7	14 to 23	20.5	14 to 29
Number of sex partners in lifetime	1.6	1 to 18	1.7	1 to 13
Number of sex partners in the last 12 months	1.2	1 to 6	1.1	1 to 4

The mean age of first sex was approximately two years older for women aged 25 to 46 year compared to younger women. The reported numbers of sex partners in the lifetime and in the last 12 months were very similar for both age groups.

Over eight in ten women from both age groups reported only having one sexual partner in the last 12 months (15-24: 82%, 25-46: 85%). Only 8% reported having more than one partner, but 9% did not answer the question. Overall, 67.5% women reported only one lifetime sex partner.

Table 7 shows reported knowledge and use of condoms for antenatal women by age group.

Table 7: Reported Use of Condoms, Antenatal Women by Age Group, Kiribati, 2008

	15-24		25-46	
	N	%	N	%
Ever heard of a male condom	89	80.2	76	80.0
Ever heard of a female condom	44	39.6	32	33.7
Used a condom first time had sex	5	4.5	2	2.1
Ever used a condom				
<i>Male condom only</i>	20	18	18	18.9
<i>Female condom only</i>	1	0.9	0	0
Used a condom at last sex				
Yes	4	3.8	2	2.2
No	101	96.2	91	97.8
Condom use in past 12 months				
<i>Every time</i>	0	0.0	2	2.2
<i>Sometimes</i>	15	14.2	10	11.1
<i>Never</i>	91	85.8	78	86.7

One in five women from both age groups (20%) reported that they had not heard of the male condom, while two thirds of women had not heard of the female condom. Overall, less than one in five women reported that they had ever used a male condom, and only one woman reported ever using a female condom. Over 85% of women reported that they hadn't used a condom in the last 12 months.

Table 8 shows other sexual behaviour of antenatal women by age group, including the reported prevalence of overlapping relationships in the last 12 months, sex with someone other than usual partner while off island in the last 12 months, and ever being forced to have sex.

Table 8: Reported Sexual Behaviours and Forced Sex, Antenatal Women by Age Group, Kiribati, 2008

	15-24		25-46	
	N	%	N	%
More than two sexual relationships during the same time period, in the last 12 months	10	9.3	8	8.7
Been off been off-island in the last 12 months	13	11.8	17	18.3
Had sex with someone (other than partner) while off-island	4	3.7	4	4.3
Ever forced you to have sex	7	6.5	3	3.3

Approximately 9% of women in both age groups reported having two simultaneous sexual relationships in the previous 12 months.

Although off island travel was more commonly reported by women aged 25 to 46 years (18%) compared to younger women (12%), approximately four percent of women in both age groups reported sex with someone other than their partner while off island.

Forced sex was more commonly reported by women in the younger age group (6%) compared to women aged 24 to 46 years (3%). Partners were the most commonly reported persons to force sex (two thirds of cases where specified).

Table 9 shows the reported prevalence of receiving and paying money, goods or favours in exchange for sex in the previous 12 months for antenatal women.

Table 9: Reported Transactional Sex in the last 12 months, Antenatal Women by Age Group, Kiribati, 2008

	15-24		25-46	
	N	%	N	%
Received money, goods or favours in exchange for sex:				
Yes	1	0.9	1	1.1
No	105	94.6	94	98.9
No answer/Refused	5	4.5	0	0
Paid money, goods or favours in exchange for sex:				
Yes	1	0.9	2	2.1
No	106	96.4	89	93.7
No answer/Refused	3	2.7	4	4.2

Overall, only three women reported either receiving or paying money, goods or favours in exchange for sex in the last 12 months. However, seven women aged 15 to 24 years and five women aged 25 to 46 years refused to answer at least one of these questions, which increases the possibility that the prevalence of transactional sex may be higher than reported.

Alcohol and Substance use

Table 10 shows information on alcohol use for antenatal women during the 12 months before they became pregnant and whether they had drunk alcohol during their current pregnancy.

Table 10: Reported Frequency and Consumption of Alcohol, Antenatal Women by Age Group, Kiribati, 2008

	N	15-24 %	N	25-46 %
Frequency of alcohol use:				
<i>4 or more times a week</i>	2	1.9	0	0.0
<i>2 to 3 times a week</i>	3	2.8	1	1.1
<i>2 to 4 times a month</i>	14	13.0	0	0.0
<i>Monthly or less</i>	6	5.6	5	5.4
<i>Never</i>	83	76.9	86	93.5
Number of standard drinks usually consumed:				
<i>1 to 2</i>	6	27.3	3	50.0
<i>3 to 4</i>	6	27.3	1	16.7
<i>5 to 9</i>	7	31.8	0	0.0
<i>10 or more</i>	2	9.1	2	33.3
Frequency of drinking 5 or more standard drinks:				
<i>Daily or almost daily</i>	1	5.3	0	0
<i>Weekly</i>	3	15.8	0	0
<i>Monthly</i>	3	15.8	0	0
<i>Less than monthly</i>	10	52.6	1	25.0
<i>Never</i>	2	10.5	3	75.0
Has drunk alcohol while pregnant	7	16.7	1	3.3

Over three quarters of women aged 15 to 24 years and over nine tenths of women aged 25 to 46 years reported that they had not consumed alcohol in the 12 month period prior to becoming pregnant.

For women who reported consuming alcohol, 9 of 21 women aged 15 to 24 years (41%) and two of 6 women aged 25 to 46 years (33%) reported that they normally consumed five or more drinks.

Seven women from the younger age group and one woman aged 25 to 46 years reported consuming alcohol during their pregnancy.

Table 11 shows the reported prevalence of ever using recreational drugs, and use in the previous 12 months for antenatal women.

Table 11: Reported Recreational Drug Use in the Last 12 Months, Antenatal Women by Age Group, Kiribati, 2008

	Ever used		Used in last 12 months		
	N	%	N	% ever users	% all respondents
15-24					
Tobacco	16	14.4	6	37.5	5.4
Kava	4	3.6	2	50.0	1.8
Amphetamines/Ecstasy	1	0.9	0	0	0
Butane/gas/glue (sniffings)	0	0	-	-	-
Marijuana/cannabis	0	0	-	-	-
25-46					
Tobacco	22	23.2	15	68.2	15.8
Kava	3	3.2	2	66.7	2.1
Amphetamines/Ecstasy	0	0	-	-	-
Butane/gas/glue (sniffings)	0	0	-	-	-
Marijuana/cannabis	0	0	-	-	-

Tobacco was the most commonly reported drug used in the last 12 months by antenatal women. Reported tobacco use was three times higher for women aged 25 to 46 years (16%) compared with women aged 15 to 24 years (5.4%).

A low prevalence of kava use was also reported (2 percent). Excluding one woman who reported ever using amphetamines or ecstasy, no other drug use was reported.

HIV knowledge and attitudes

Table 12 shows the prevalence of having heard of HIV/AIDS prior to the survey and the responses to questions assessing knowledge and common misconceptions for antenatal women.

Table 12: Knowledge of HIV/AIDS, Antenatal Women by Age Group, Kiribati, 2008

	15-24		25-46	
	N	%	N	%
Before this survey, had you heard of HIV/AIDS	101	91.8	92	96.8
Having sex with only one, uninfected, faithful partner can reduce the chance of getting HIV:				
<i>True</i>	91	90.1	85	94.4
<i>False</i>	4	4	3	3.3
<i>Don't know</i>	6	5.9	2	2.2
Using condoms correctly can reduce the chance of getting HIV:				
<i>True</i>	100	99.0	91	100.0
<i>Don't know</i>	1	1.0	0	0.0
A healthy looking person can be infected with HIV:				
<i>True</i>	88	87.1	81	90.0
<i>False</i>	4	4	3	3.3
<i>Don't know</i>	9	8.9	6	6.7
A person can get HIV from mosquito bites:				
<i>True</i>	15	14.9	17	18.7
<i>False</i>	61	60.4	55	60.4
<i>Don't know</i>	25	24.8	19	20.9
A person can get HIV by sharing a meal with someone who is infected with HIV:				
<i>True</i>	7	7.1	3	3.3
<i>False</i>	84	85.7	81	89.0
<i>Don't know</i>	7	7.1	4	4.4
A mother can pass HIV to their baby during pregnancy, delivery or breastfeeding:				
<i>True</i>	94	93.1	84	92.3
<i>False</i>	4	4.0	6	6.6
<i>Don't know</i>	3	3.0	1	1.1

Approximately 8% of women aged 15 to 24 years and 3% aged 25 to 46 years reported that they had not heard of HIV or AIDS. Only women who reported that they had heard of HIV or AIDS were asked questions on the prevention and transmission of HIV.

Overall levels of knowledge were similar for both age groups. Knowledge that correct use of condoms can reduce the chance of acquiring HIV was almost universal amongst women who had heard of HIV. However, there is a discrepancy between this question and a previous question about having ever heard of condoms, so some of the survey participants may have guessed the correct answer.

Approximately nine in ten women from both age groups correctly answered the questions on: reducing risk by having one faithful partner, acquiring HIV from a healthy looking person, acquiring HIV by sharing a meal with someone who has the virus and mother to child transmission.

However, only 60% of women from both age groups knew that HIV cannot be acquired from mosquito bites.

Table 13 shows findings on attitudes towards those living with HIV for antenatal women.

Approximately seven in ten women reported that they would be willing to care for a relative with HIV in their own home and would not want their relatives HIV status to remain a secret.

However, less than six in ten women reported that they would be willing to have casual contact with shopkeeper or vendor and less than half agreed that a female teacher who has HIV and is not sick should be allowed to keep teaching.

Further, only 13% of women aged 15 to 24 years and 16% aged 25 to 46 years agreed that a person should be allowed to keep their HIV status private.

Table 13: Attitudes towards Those Living with HIV, Antenatal Women by Age Group, Kiribati, 2008

	15-24		25-46	
	N	%	N	%
If a family member had HIV, would you be willing to care for him/her in your home				
<i>Yes</i>	73	66.4	70	73.7
<i>No</i>	35	31.8	19	20
<i>Don't Know</i>	2	1.8	6	6.3
If a member of your family became ill with HIV, the virus that causes AIDS, would you want it to remain secret:				
<i>Yes</i>	21	19.3	22	23.4
<i>No</i>	83	76.1	66	70.2
<i>Don't Know</i>	5	4.6	6	6.4
Would you buy fresh vegetables from a shopkeeper or vendor if you knew that this person had HIV:				
<i>Yes</i>	41	37.3	29	30.9
<i>No</i>	63	57.3	55	58.5
<i>Don't Know</i>	6	5.5	10	10.6
In your opinion, if a female teacher has HIV and is not sick, should she be allowed to continue teaching in the school:				
<i>Should be allowed</i>	41	38.0	46	51.1
<i>Should not be allowed</i>	57	52.8	33	36.7
<i>Don't know/not sure/depends</i>	10	9.3	11	12.2
A person should be able to keep his/her HIV status private (no one else needs to find out:				
<i>Agree</i>	6	5.5	5	5.3
<i>Strongly agree</i>	8	7.3	10	10.6
<i>Disagree</i>	39	35.8	28	29.8
<i>Strongly disagree</i>	49	45.0	43	45.7
<i>Don't Know</i>	7	6.4	8	8.5

Table 14 shows reported exposure to HIV prevention activities within the community for antenatal women.

Table 14 Exposure to HIV Prevention Activities, Antenatal Women by Age Group, Kiribati, 2008

	15-24		25-46	
	N	%	N	%
Heard messages about HIV on radio	103	93.6	90	94.7
Read messages about HIV in newspapers	89	80.9	78	82.1
Read leaflets or Pamphlets about HIV/AIDS	64	58.2	65	68.4
Received HIV information from outreach workers visiting the community/village	69	62.7	59	62.1
Seen messages about HIV on TV	33	30.0	38	40.0
Seen 'The Love Patrol' film or CD	6	5.5	3	3.2

Most women reported hearing messages about HIV on the radio and eight in ten women had read messages about HIV in the newspapers. Approximately six in ten women reported that they had read messages about HIV on leaflets or pamphlets, and received information from outreach workers. Exposure to messages about HIV on television and having seen “The Love Patrol” were least common.

Access to testing

Table 15 shows reported access to HIV testing, prevalence of testing and receiving results for antenatal women.

Approximately seven in ten women reported that they believed they could get a confidential HIV test in the community. While over half of those who did not believe they could get a confidential test did not provide a reason for this, the two most commonly reported reasons were “the testing site too public” and “everyone will find out”.

Only four women reported that they were tested for HIV within the last 12 months and the most common reason for having a test was that it was part of a medical check.

Overall, only six women aged 15 to 24 years and two women aged 25 to 46 years reported that they had ever had a HIV test and received their results.

Table 15: Reported Access to Testing, Antenatal Women by Age Group, Kiribati, 2008

	15-24		25-46	
	N	%	N	%
Believe it is possible for someone in the community to get a confidential test	76	71.0	70	74.5
Reasons why you can't get a confidential test:				
<i>No answer/refused</i>	18	58.1	13	54.2
<i>Testing site too public</i>	8	25.8	4	16.7
<i>Everyone will find out</i>	3	9.7	1	4.2
<i>Testing site too difficult to get to</i>	1	3.2	1	4.2
<i>HIV testing is not available</i>	0	0	2	8.3
<i>Other</i>	1	3.2	0	0.0
Has ever been tested for HIV	10	9.2	5	5.5
When had last HIV test:				
<i>In the last 3 months</i>	1	0.9	0	0.0
<i>In the last year</i>	2	1.8	1	1.1
<i>Over a year ago</i>	5	4.6	3	3.3
Reason why had last HIV test:				
<i>Medical check</i>	5	4.6	3	3.3
<i>I asked for it</i>	2	1.8	0	0.0
<i>Blood donor</i>	1	0.9	0	0.0
Received result of HIV test	6	5.5	2	2.2

Symptoms of STIs

Table 16 shows the reported prevalence of ever being diagnosed with a STI, symptoms in the last month and treatment seeking behaviours for antenatal women.

Table 16: Prevalence of Symptoms of STIs, Antenatal Women by Age Group, Kiribati, 2008

	15-24		25-46	
	N	%	N	%
Ever been diagnosed with a sexually transmitted disease or infection by a doctor or health worker	5	4.5	1	1.1
Symptoms in the last month:				
<i>Unusual genital or anal discharge</i>	6	5.7	10	11.5
<i>Rash, ulcer or sore around your genitals</i>	8	7.5	8	9.2
<i>Lower abdominal pain during sex</i>	24	22.4	22	25.6
<i>At least one symptom</i>	30	27.0	27	28.4
Has seen someone for treatment of symptoms	5	16.7	7	25.9
If you were worried you had a STI where would you go for help:				
<i>Health Clinic</i>	95	85.6	80	84.2
<i>Hospital</i>	13	11.7	13	13.7
<i>No answer</i>	3	2.7	2	2.1

Only five women aged 15 to 24 years (4%) and one woman aged 25 to 46 years (1%) reported that they had ever been diagnosed with a STI. One woman reported being diagnosed with Syphilis, another reported Trichomonas and the remaining four women did not know.

Over one quarter of women reported having at least one symptom in the previous month which could indicate the presence of a STI. While nearly all women reported that they would go to the health clinic or hospital if they thought they had a STI, only 17% of women aged 15 to 24 years and 26% aged 25 to 46 years who reported symptoms also reported that they had sought treatment. This suggests that antenatal women may not have knowledge of symptoms which can indicate the presence of STIs.

Prevalence of STIs

Table 17 shows the results of STI testing for antenatal women in Kiribati by age group.

Table 17: Prevalence of STIs, Antenatal Women by Age Group, Kiribati, 2008

	N Reactive/ positive	N tested	%	LCI	UCI
15-24					
HIV	0	102	0	0.0	0.0
Hepatitis B (Antigen)	16	102	15.7	9.2	24.2
Chlamydia	14	109	12.8	7.2	20.6
Gonorrhoea	0	109	0	0.0	0.0
Syphilis	3	102	2.9	0.6	8.4
25-46					
HIV	0	92	0	0.0	0.0
Hepatitis B (Antigen)	14	91	15.4	8.7	24.5
Chlamydia	8	94	8.5	3.7	16.1
Gonorrhoea	0	94	0	0.0	0.0
Syphilis	6	91	6.6	2.5	13.8

Hepatitis B surface antigen was detected in approximately one in seven women from both age groups, indicating prior exposure to the Hepatitis B Virus.

Chlamydia was next the most commonly detected STI and was detected in 13% of women aged 15 to 24 years and 8.5% of women aged 25 to 46 years.

Syphilis was detected in three women aged 15 to 24 years (3%) and six women aged 25 to 46 years (7%) by RPR and TPPA testing. However RPR titres were not available for all cases, so the prevalence of active Syphilis could not be estimated.

No women were found to have Gonorrhoea or HIV detected.

Table 18 shows the prevalence of Chlamydia by selected demographic and risk factors for SGS conducted in 2008.

Table 18 Prevalence of Chlamydia by selected demographic and risk factors, Antenatal Women, Kiribati, 2008

	Total N	Chlamydia N	%
Age			
<i>Less than 25 years</i>	109	14	12.8
<i>25 to 46 years</i>	94	8	8.0
Currently married			
<i>Yes</i>	185	16	8.6
<i>No</i>	16	4	25.0
Education			
<i>Primary</i>	26	3	11.5
<i>Secondary</i>	160	19	11.9
<i>Higher</i>	17	0	0.0
Age at first sex			
<i>Less than 18 years</i>	40	4	10.0
<i>18 years or older</i>	146	18	12.3
Ever used a condom			
<i>Yes</i>	8	0	0.0
<i>No</i>	195	22	11.3
N of sex partners in life			
<i>One</i>	137	15	10.9
<i>Two or more</i>	51	7	13.7
N of sex partners in last 12 months			
<i>One</i>	169	19	11.2
<i>Two or more</i>	15	2	13.3
Sex for money/favours in last 12 months			
<i>Yes</i>	3	0	0
<i>No</i>	187	20	10.7
Concurrent partners in the last 12 months			
<i>Yes</i>	179	20	11.2
<i>No</i>	18	2	11.1

Using the Chi Square test, no statistically significant differences between subgroups were found to any of the demographic or risk factors. However, there was limited power to detect differences as a result of the small numbers of women within some subgroups.

UNGASS indicators

Table 19: UNGASS indicators, Antenatal Women by Age Group, Kiribati, 2008

	15-24 yrs		25-49yrs	
	N	%	N	%
7. Percentage of women aged 15-49 who received an HIV test in the last 12 months and who know their results	3	2.7	0	0.0
13. Percentage of antenatal women aged 15-24 who both correctly identify ways of preventing the sexual transmission of HIV and who reject major misconceptions about HIV transmission	49	44.1		
15. Percentage of antenatal women aged 15-24 who have had sexual intercourse before the age of 15	3	2.7		
16. Percentage of antenatal women aged 15-49 who have had sexual intercourse with more than one sexual partner in the past 12 months	8	7.2	7	7.4
17. Percentage of antenatal women aged 15-49 who have had sexual intercourse with more than one sexual partner in the past 12 months reporting the use of a condom during their last sexual intercourse	3	37.5	0	0.0

Three antenatal women aged 15 to 24 years and none aged 25 to 49 years reported that they had a HIV test in the last 12 months and received their results.

UNGASS indicator 13 is used to determine the proportion of young people aged 15 to 24 years who know essential facts about HIV. Less than half of the women aged 15 to 24 years correctly answered the five questions used to determine baseline knowledge:

- Having only one, uninfected, faithful partner can reduce the chance of acquiring HIV
- Using condoms correctly can reduce the chance of getting HIV
- A healthy looking person can be infected with HIV
- A person can get HIV from mosquito bites
- A person can get HIV by sharing a meal with someone who is infected with HIV

Only three women aged 15 to 24 years (3%) reported that they had sex before they were 15 years of age.

Eight women aged 15 to 24 years (7%) and seven women aged 25 to 46 years (7%) reported that they had more than one sexual partner in the last 12 months. Of these, three women aged 15 to 24 years reported using a condom at last sex.

HIV Prevalence Survey of Seafarers

Survey Methodology

Table 20 shows an overview of the survey methodology used for the Seafarer's HIV Surveillance Survey.

Table 20: Overview of the Survey Methodology, Seafarers, Kiribati, 2008

Methodology	Survey details
Population	<i>Seafarers</i>
Survey type	<i>HSS</i>
Sampling method	<i>Consecutive recruitment</i>
Inclusion criteria	<i>All male seafarers attending for first aid training (refresher course) at the Marine Training Centre who were aged 15 to 49 years</i>
Target Sample Size	200
Final Sample Size	160
Interview location(s)	<i>Marine Training Centre, Betio</i>
Administration of the survey	<i>Interviewer administered by NGO volunteers and MoH staff</i>
Type of consent	<i>Verbal consent</i>
Time required for interview	20-25
Data collection period	<i>March to June 2008</i>

Male seafarers who attended for first aid training at the Marine Training Centre between March and June 2008 were invited to participate in the survey. No seafarers refused to take part in the survey.

Eligibility criteria

Seafarers were eligible to participate if they were aged 15 to 49 years. Although 184 seafarers were recruited; eighteen men aged 50 to 58 years and four transgender participants were excluded, leaving a final sample size of 160 seafarers.

Results

Demographic characteristics.

Table 21 shows the demographic characteristics of seafarers who took part in the survey.

Table 21: Reported Demographic Characteristics, Seafarers, Kiribati, 2008

	N	%		N	%
Age group (years)			Education		
19-24	17	10.6	Never Attended School	2	1.3
25-29	47	29.4	Primary	4	2.5
30-34	37	23.1	Junior High School	20	12.7
35-39	26	16.3	Senior High School	39	24.7
40-44	10	6.3	Higher	93	58.9
45-49	23	14.4	Total	158	100.0
Total	160	100.0			
			Ethnicity		
Place of Birth			Micronesian	158	100.0
Kiribati	157	98.7			
Nauru	1	0.6			
Vanuatu	1	0.6			
Total	159	100.0			

The seafarers were aged 19 to 49 years, with a mean age of 33.2 years. There were 17 men aged 19 to 24 years (11%) and 143 aged 25 to 49 years (89%).

All except two seafarers were born in Kiribati (includes Aononraina and Abaiang Islands) and all were of Micronesian ethnicity. The majority of seafarers reported that they had completed senior high school or higher (83%).

Table 22 shows reported marital status and living arrangements for seafarers.

Table 22: Reported Marital Status and Living Arrangements, Seafarers, Kiribati, 2008

	N	%
Marital Status		
<i>Ever married</i>	133	84.2
<i>Currently married</i>	127	80.4
Living Arrangements		
<i>With spouse</i>	78	51.0
<i>With family</i>	73	47.7
<i>With a sex partner (non-married)</i>	2	1.3

Eighty four percent of seafarers reported that they had ever been married and the vast majority of these men were currently married (96%).

Almost all men reported living with their spouse (51%) or with family (48%).

Marine experiences

Table 23 shows an overview of marine experiences for the seafarers.

Table 23 Marine experiences, Seafarers, Kiribati, 2008

	N	%		N	%
Year training was completed			Type of work:		
<i>1976 to 1979</i>	16	11.0	<i>Able bodied seaman (AB)</i>	48	32
<i>1980 to 1989</i>	14	9.8	<i>Ordinary seaman (OS)</i>	44	29.3
<i>1990 to 1999</i>	47	32.3	<i>Motorman</i>	22	14.7
<i>2000 to 2007</i>	69	47.3	<i>Qualified steward</i>	9	6
Ever worked on overseas ships	150	94.3	<i>Bosun</i>	8	5.3
Period away the last time worked on an overseas ship:			<i>Fitter</i>	7	4.7
<i>1 to 6 months</i>	7	4.9	<i>Cook</i>	6	4
<i>7 to 12 months</i>	103	72.1	<i>Engineer</i>	3	2
<i>1 to 2 years</i>	27	18.9	<i>MTC trainee/cadet</i>	3	2
<i>2 to 5 years</i>	4	2.8			

Nearly half of the seafarers reported that they had completed their marine training between 2000 and 2007 (47%) and over nine in ten reported they had worked on overseas ships (94%). Over 95% of seafarers reported that they were away for more than 6 months on their last overseas ship.

Able bodied seaman (32%) and ordinary seaman (29%) were the two most common types of work performed.

Sexual behaviours

Table's 24 and 25 show the prevalence of ever having sexual intercourse, age of the first sexual partner, prevalence of sexual intercourse in the last 12 months, mean age of first sex and number of sexual partners in the last 12 months.

Table 24: Reported Sexual History, Seafarers, Kiribati, 2008

	N	%
Ever had sexual intercourse	151	95.0
Age of first sexual partner:		
<i>Younger</i>	33	22.0
<i>Same age</i>	67	44.7
<i>Less than 5 years older</i>	9	6.0
<i>5 to 10 years older</i>	26	17.3
<i>More than 10 years older</i>	5	3.3
<i>Don't know</i>	10	6.7
Has had sex in the last 12 months	138	86.8

Table 25: Reported Sexual History (B), Seafarers, Kiribati, 2008

	Mean	Range
Age when first had sex:	18.0	10-30 years
Number of sex partners in the last 12 months:	3.2	1-27

Ninety five percent of seafarers reported that they had ever had sexual intercourse and the most commonly reported age of first sex partners were younger (22%) or the same age as the respondent (45%). Overall, 87% of seafarers reported that they had sexual intercourse in the last 12 months.

The average age of first sexual intercourse was 18 years, and 95% of seafarers reported having sex by the time they were 24 years old. The average number of sexual partners for seafarers who had sex in the last 12 months was 3.2 (Range: 1 to 27).

Figure 1 shows the distribution of reported numbers of sexual partners for seafarers who had sex in the last 12 months. While 55 (44%) of seafarers reported having only one partner, 29% reported two or three partners and the remaining 27% reported four or more partners.

Figure 1: Reported Number of Sexual Partners in the Last 12 Months, Seafarers, Kiribati, 2008

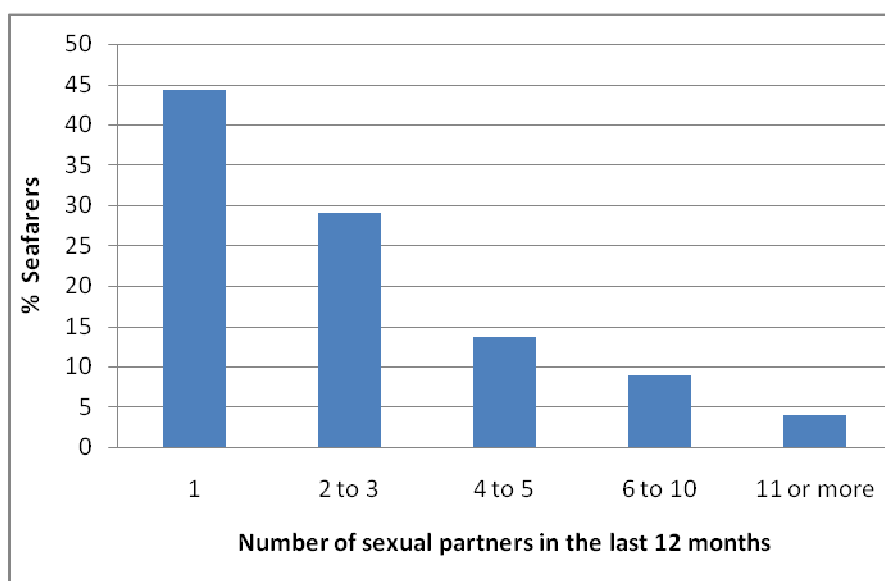


Table 26 shows reported prevalence of ever using condoms for all seafarers who had ever had sex, and frequency of condom use and condom use at last sex for seafarers who reported having sex in the last 12 months.

Table 26: Reported Condom Use, Seafarers, Kiribati, 2008

	N	%
Used a condom first time had sex	19	12.6
Condom use in past 12 months		
<i>Every time</i>	12	8.9
<i>Sometimes</i>	66	48.9
<i>Never</i>	57	42.2
Used a condom at last sex	15	11.0

One in eight (13%) of seafarers who had ever had sex reported using a condom the first time they had sex and all reported that they had used male condoms. One third of seafarers (32%) also reported that they had not heard of condoms when they first had sex (not presented in table).

Overall, less than one in ten seafarers (8.9%) reported using a condom every time they had sex in the last 12 months. The three most common reasons for not using a condom at last sex were 'trusting partner' (23%), 'I didn't want to' (20%) and 'condoms not easily available' (19%).

Table 27 shows the reported prevalence of off-island travel, having sex while off is land, overlapping sexual relationships, group sex and forced sex for seafarers who reported having sex in the last 12 months.

Table 27 Reported Sexual Behaviours, Seafarers, Kiribati, 2008

	N	%
Has been off been off-island in the last 12 months	110	82.7
Had sex with someone (other than partner) while off-island	64	58.7
Two or more sexual relationships during the same time period, in the last 12 months	21	16.2
Had sex with more than two people at the same time (group sex)	7	5.6
Ever forced you to have sex, even though you did not want to?	4	3.2

More than four in five seafarers (83%) reported that they had been off island in the last 12 months. Over half of those who had travelled off island reported that they had sex with someone other than their partner.

One in 6 seafarers (16%) reported having two or more sexual relationships at the same time, and 1 in 18 seafarers (6%) reported that they had group sex during the last 12 months.

Four seafarers who had ever had sexual intercourse reported that they had ever been forced to have sex (3%). The persons reported to have forced sex were strangers (2), partner (1) and neighbour (1). Three seafarers refused to answer this question.

Seafarers who reported having sex in the last 12 months were asked whether they had paid or received money, goods or favours in exchange for sex during this period.

Table 28 shows the prevalence of reported transactional sex behaviours. Although 138 seafarers reported having sex in the last 12 months, only 122 to 125 seafarers responded to the leading question for each type of transactional sex

Table 28: Reported Transactional Sex, Seafarers, Kiribati, 2008

	N	%
Paid money in exchange for sex (N=125)	59	47.2
Frequency of condom use (N=54)		
<i>Every time</i>	33	61.1
<i>Sometimes</i>	16	29.6
<i>Never</i>	5	9.3
Used a condom last time paid for sex (N=58)	41	70.7
Paid goods or favours in exchange for sex (N=125)	29	23.2
Frequency of condom use (N=29)		
<i>Every time</i>	10	34.5
<i>Sometimes</i>	11	37.9
<i>Never</i>	8	27.6
Used a condom last time paid for sex (N=29)	14	48.3
Received money in exchange for sex (N=122)	3	2.5
Received goods or favours in exchange for sex (N=125)	6	4.8

The most commonly reported type of transaction sex was paying money (47%) followed by giving goods or favours (23%) in exchange for sex.

For seafarers who reported paying money in exchange for sex, nearly two thirds (61%) reported using a condom every time, and 71% reported using a condom the last time that they paid for sex. The average number of partners in the 12 month period was 3.2 (Range: 1 to 27).

For seafarers who reported paying goods or favours in exchange for sex, only one third reported using a condom every time, and 48% reported using a condom the last time that they paid for sex. The average number of partners in the 12 month period was 2.1 (Range: 1 to 7).

Receiving money (2%) or goods or favours (5%) in exchange for sex were much less commonly reported.

Male to male sex

One in eight (12%) of seafarers who reported that they had ever had sex reported that they had ever had sexual contact with another man.

Of these, two seafarers reported that they had sexual contact with another man in the last 12 months, and one man declined to answer this question.

Alcohol and Substance use

Table 29 shows the reported frequency of alcohol consumption and the number of standard drinks normally consumed by seafarers in the last 12 months.

Table 29 Reported Frequency and Consumption of Alcohol in the last 12 months, Seafarers, Kiribati, 2008

	N	%
Frequency of alcohol consumption:		
<i>4 or more times a week</i>	4	3.0
<i>2 to 3 times a week</i>	27	20.0
<i>2 to 4 times a month</i>	51	37.8
<i>Monthly or less</i>	27	20.0
<i>Never</i>	26	19.3
Number of standard drinks usually consumed:		
<i>1 to 2</i>	5	5.2
<i>3 to 4</i>	4	4.1
<i>5 to 9</i>	33	34.0
<i>10 or more</i>	55	56.7

Approximately 80% of seafarers reported consuming alcohol. Although the frequency was diverse, (from less than monthly to four or more times a week), one third of seafarers who consumed alcohol reported they normally consumed at least 5 standard drinks (34%), and another 57% reported consuming ten or more standard drinks.

Table 30 shows the reported prevalence of ever using drugs and recreational drug use in the last month.

Table 30: Reported Recreational Drug Use, Seafarers, Kiribati, 2008

	Ever used		Used in last month		
	N	%	N	% all respondents	% ever users
Kava	42	26.3	25	15.6	59.5
Tobacco	38	23.8	19	11.9	50.0
Marijuana/cannabis	5	3.1	1	0.6	20.0
Sniffings/inhalants (Butane/gas)	3	1.9	1	0.6	33.3
Ecstasy/Ice	2	1.3	1	0.6	50.0
Viagra/Cialis/Sex enhancers	2	1.3	0	0	0.0

Kava and Tobacco were the most commonly reported drugs used by seafarers. Approximately one quarter of seafarers reported ever using Kava (26%) and Tobacco (24%). One in six seafarers reported consuming Kava (16%) and one in eight (12%) reported using Tobacco in the last month.

Marijuana was the third most commonly used drug although only five seafarers reported ever using and one reported using marijuana in the last month.

Less than two percent of seafarers reported using sniffings/inhalants, Ecstasy/Ice and sex enhancing drugs. In addition only one seafarer reported using sniffings/inhalants and Ecstasy/Ice in the last month. There was no reported use of sex enhancing drugs in the last month.

HIV knowledge and attitudes

Almost all seafarers reported that they had heard of HIV/AIDS prior to taking part in the survey (99%) and over two thirds of those who had heard of HIV/AIDS said that they know someone who has HIV/AIDS or has died from an AIDS related condition.

The level of knowledge among seafarers was generally very high. Over nine in ten seafarers who had heard of HIV/AIDS were aware that having sex with only one, uninfected, faithful partner can reduce the chance of getting HIV (91%), using condoms correctly can reduce the chance of getting HIV (99%), that a healthy looking person can be infected with HIV (92%) and that a person cannot get HIV by sharing a meal with someone who is infected with HIV (92%). However 12% believed incorrectly that HIV could be acquired from mosquito bites and a further 9% reported that they were unsure.

Table 31 shows the reported prevalence of having heard of HIV/AIDS prior to the survey, knowing someone who has HIV/AIDS, and knowledge of how HIV can be acquired for seafarers.

Table 31: Knowledge of HIV/AIDS, Seafarers, Kiribati, 2008

	N	%
Before this survey, had heard of HIV/AIDS	155	98.7
Know someone who is infected with HIV/AIDS or has died of an AIDS related condition	98	68.5
Having sex with only one, uninfected, faithful partner can reduce the chance of getting HIV:		
True	136	90.7
False	10	6.7
Don't know	4	2.7
Using condoms correctly can reduce the chance of getting HIV:		
True	142	98.6
False	2	1.4
A healthy looking person can be infected with HIV:		
True	139	92.1
False	10	6.6
Don't know	2	1.3
A person can get HIV from mosquito bites:		
True	19	12.4
False	120	78.4
Don't know	14	9.2
A person can get HIV by sharing a meal with someone who is infected with HIV:		
True	6	3.9
False	142	91.6
Don't know	6	3.9
A mother can pass HIV to their baby during pregnancy, delivery or breastfeeding:		
True	131	85.6
False	17	11.1
Don't know	5	3.3

Although the majority of seafarers reported that they would be willing to care for a family member who was sick with HIV in their own home (87%), over one third reported that they would want it to remain a secret if a member of their family became sick with HIV.

Many seafarers reported a willingness to have casual contact with a person in the community with HIV/AIDS. Over three quarters of seafarers (77%) reported that they would be will to buy fresh vegetables from a shopkeeper or vendor if they knew that

the person had HIV and over two thirds (68%) agreed that a female teacher who has HIV and is not sick, should be allowed to continue teaching.

Although there was generally a high reported level of tolerance towards people with HIV in the community only one in five (18%) of seafarers agreed or strongly agree that a person should be able to keep their HIV status private.

Table 32 shows reported attitudes towards those living with HIV for seafarers.

Table 32: Reported Attitudes towards Those Living with HIV, Seafarers, Kiribati, 2008

	N	%
If a member of your family became sick with HIV, would you be willing to care for her or him in your own household?		
Yes	135	87.1
No	17	11.0
Don't know	3	1.9
If a member of your family became ill with HIV, the virus that causes AIDS, would you want it to remain secret?		
Yes	56	36.4
No	89	57.8
Don't know	9	5.8
Would you buy fresh vegetables from a shopkeeper or vendor if you knew that this person had HIV?		
Yes	120	77.4
No	32	20.6
Don't know	3	1.9
In your opinion, if a female teacher has HIV and is not sick, should she be allowed to continue teaching in the school?		
Yes	103.0	68.2
No	26.0	17.2
Don't know/not sure/depends	22.0	14.6
A person should be able to keep his/her HIV status private (no one else needs to find out)		
Agree	12	7.9
Strongly agree	15	9.9
Disagree	40	26.5
Strongly Disagree	66	43.7
Don't know	18	11.9

Access to testing

Table 33: Reported Access to Testing, Seafarers, Kiribati, 2008

	N	%
Believe it is possible for someone in the community to get a confidential test	98	73.1
Ever been tested for HIV	126	85.1
When did you have your last HIV test		
<i>In the last 3 months</i>	71	59.7
<i>In the last year</i>	28	23.5
<i>Over a year ago</i>	20	16.8
Why did you have your last HIV test:		
<i>As part of a physical exam</i>	117	94.4
<i>Blood donor</i>	5	4.0
<i>I asked for it</i>	2	1.6
Received result of HIV test	105	87.5

Three quarters of seafarers (73%) believed that it was possible for someone in the community to obtain a confidential HIV test in Kiribati (Table 33). Only 8 seafarers provided reasons why they did not believe it was possible. The two most common responses were that the testing place was too public (three of eight) and everyone would find out (three of eight).

Overall, 85% of seafarers reported that they had ever been tested for HIV. Of 124 seafarers who responded, four fifths reported that they had been tested in the last year (83%). The vast majority reported that they were tested as part of a physical examination (94%) and nearly nine in ten reported receiving their results (88%).

Exposure to HIV Education and Prevention Activities

Table 34 shows reported exposure to information for the media and educational activities with the community for seafarers.

Table 34 Reported Exposure to HIV Education and Prevention Activities, Seafarers, Kiribati, 2008

	N	%
Heard messages about HIV on radio	153	95.6
Read messages about HIV in newspapers	150	93.8
Seen messages about HIV on TV	126	78.8
Participated in HIV education program	101	63.1
Participated in HIV peer education program	60	37.5
Attended HIV community event	47	29.4
Seen "The Love Patrol"	28	17.5
Heard about the VCCT services available	17	10.6

Seafarers most commonly reported that they had ever obtained messages about HIV from the radio (96%) and newspapers (94%).

Nearly two thirds (63%) had ever participated in an education program and over one third (37%) had ever participated in a peer education program.

Only 1 in 10 seafarers reported that they had heard about the VCCT services available (11%).

Symptoms of STIs

Overall, 1 in 7 seafarers reported that they had ever been diagnosed with an STI. Gonorrhoea was the most commonly reported STI for seafarers.

Thirteen seafarers reported having at least one symptom in the last month which could indicate the presence of a STI. Although 96% of seafarers reported that they would go to the hospital or a health clinic if they thought they had an STI, only 46% of those who reported symptoms had sought treatment.

Table 35 shows the reported prevalence of ever being diagnosed with a STI, infections respondents were diagnosed with, symptoms of STIs in the past month and treatment seeking behaviours for seafarers.

Table 35: Prevalence of Symptoms of STIs, Seafarers, Kiribati, 2008

	N	%
Ever been diagnosed with a sexually transmitted disease or infection by a doctor or health worker:	21	14.2
Infection(s) respondents were diagnosed with:		
<i>Gonorrhoea</i>	7	4.7
<i>Syphilis</i>	3	2.0
<i>Trichomonas</i>	0	0.0
<i>Genital Herpes</i>	0	0.0
<i>Genital Warts</i>	1	0.7
Symptoms in the last month:		
<i>Unusual genital or anal discharge</i>	0	0
<i>Rash, ulcer or sore around your genitals</i>	3	2.1
<i>Stinging, burning or pain when passing urine</i>	10	6.6
<i>At least one symptom</i>	13	9.0
Has seen someone for treatment of symptoms	6	46.2
If worried you had a STI, where would you go for help:		
<i>Hospital</i>	75	54.7
<i>Health Clinic</i>	57	41.6
<i>Friends</i>	3	2.2
<i>Other</i>	2	1.5

Prevalence of STIs and Blood borne Diseases, Seafarers, Kiribati, 2008

Table 36 show the prevalence of HIV, Hepatitis B surface antigen and Syphilis for seafarers.

Table 36: Prevalence of STIs and Blood borne Diseases, Seafarers, Kiribati, 2008

	N Reactive/ positive	N tested	%	LCI	UCI
HIV	0	159	0.0	0.0	0.0
Hepatitis B (Antigen)	43	159	27.0	20.3	34.7
Syphilis	0	159	0.0	0.0	0.0

Over one quarter of seafarers (27%) were found to the have the Hepatitis B surface antigen, indicating prior exposure to the Hepatitis B virus.

No seafarers were found to have HIV or Syphilis.

One specimen was inadequate specimen and no further testing was conducted.

UNGASS indicators

Table 37 shows the findings for UNGASS indicators for Seafarers. Findings are presented for seafarers aged 25 to 49 years only, due to the insufficient numbers of seafarers aged 19 to 24 years.

Table 37: UNGASS indicators, Seafarers, Kiribati, 2008

	25-49yrs	
	N	%
<i>7. Men aged 15-49 who received an HIV test in the last 12 months and who know their results.</i>	81	56.6
<i>16. Percentage of men aged 15-49 who have had sexual intercourse with more than one sexual partner in the past 12 months</i>	62	43.4
<i>17. Percentage of men aged 15-49 who have had sexual intercourse with more than one sexual partner in the past 12 months reporting the use of a condom during their last sexual intercourse</i>	14	22.6
<i>19. Percentage of men reporting the use of a condom the last time they had anal sex with a male partner</i>	0	0.0

Just over half of Seafarers aged 25 to 49 years reported that they had a HIV test in the last 12 months and knew their result.

Four in ten Seafarers aged 25 to 49 years reported that they had sexual intercourse with more than one partner in the last 12 months.

One in four Seafarers aged 25 to 49 years who reported having more than one partner in the last 12 months, also reported that they had used a condom at last sexual intercourse.

Only two Seafarers aged 25 to 49 years reported having anal sex in the last 12 months and neither reported using a condom at last anal sex.

HIV Prevalence Survey of Policemen

Survey Methodology

Table 38 shows an overview of the survey methodology used for the HIV surveillance survey of Policemen in Kiribati.

Table 38: Overview of the Survey Methodology, Policemen, Kiribati, 2008

Methodology	Survey details
Population	<i>Policemen</i>
Survey type	<i>HSS</i>
Sampling method	<i>Consecutive recruitment</i>
Inclusion criteria	<i>All Policemen attending for monthly meetings at the central police station and headquarters who were aged 15 to 49 years</i>
Target Sample Size	200
Final Sample Size	196
Interview location(s)	<i>TUC and BTC</i>
Administration of the survey	<i>Self complete</i>
Type of consent	<i>Verbal</i>
Time required for interview	<i>20-25 minutes</i>
Data collection period	<i>March to July 2008</i>

Policemen attending for monthly meetings at the central police station (Tarawa Urban Centre) and police headquarters (Betio Town Centre) between March and June 2008 were invited to participate in the survey. While no policemen refused to participate in the survey, 50 men declined to have blood taken to test for HIV antigen, Hepatitis B surface antigen and Syphilis. Syphilis testing was unable to be completed as kits for confirmatory testing were out of stock during the study period.

Eligibility criteria

Policemen were eligible to participate if they were aged 15 to 49 years. Although 203 men were recruited, six policemen who did not have their age recorded and one policeman aged 50 years were excluded from the analysis.

Results

Demographic characteristics.

Table 39 shows the demographic characteristics of male Policemen who took part in the survey.

Table 39: Reported Demographic Characteristics, Policemen, Kiribati, 2008

	N	%		N	%
Age group (years)			Highest level of education		
19-24	28	14.3	Junior high school	6	3.1
25-29	49	25.0	No answer/Refused	1	0.0
30-34	37	18.9	Primary school	19	9.7
35-39	30	15.3	Senior high school	53	27.2
40-44	29	14.8	Tertiary or higher education	117	60.0
45-49	23	11.7	Total	196	100.0
Total	196	100.0			
			Current rank		
Country of Birth			Constable	56	31.3
			Non-commissioned officer (NCO)	55	30.7
Kiribati	193	98.5	Special police	39	21.8
Aononraina	1	0.5	Officer	26	14.5
Binikiti	1	0.5	Constable Detective	2	1.1
Solomon Islands	1	0.5	Special constable	1	0.6
Total	196	100.0	Total	179	100.0

Policemen were aged 19 to 49 years, with a mean age of 33.4 years. Of 196 policemen; 28 were aged 19 to 24 years (14%) and 168 were aged 25 to 49 years. All except one policeman were born in Kiribati (includes Aononraina and Binikiti Islands).

Nearly 9 in 10 Policemen had completed senior high school or higher education (87%). Nearly one third reported that they were Constables (31%) and one third Non-commissioned officers (31%).

Table 40 shows reported marital status and living arrangements for Policemen.

Table 40: Reported Marital Status and Living Arrangements, Policemen, Kiribati, 2008

	N	%
Marital Status		
<i>Ever married</i>	178	91.8
<i>Currently married</i>	171	88.1
Living Arrangements		
<i>With spouse</i>	127	64.8
<i>With family</i>	63	32.1
<i>With sex partner (Non-married)</i>	6	3.1

Nine in ten Policemen (92%) reported that they had ever been married and overall 88% of Policemen were currently married.

Almost two thirds of men reported living with their spouse (65%) and one third with family (32%).

Sexual behaviours

Table 41 shows the mean age of first sex and mean number of sexual partners in the last 12 months for Policemen.

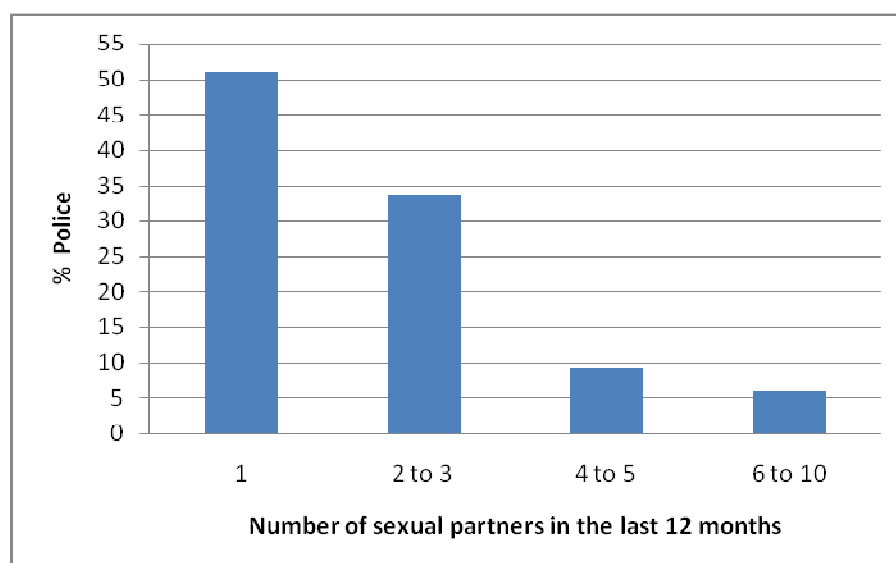
Table 41: Reported Sexual History (1), Policemen, Kiribati, 2008

	Mean	Range
Age at when first had sex	17.9	12-25 years
Number of sex partners in the last 12 months	2.1	1-10

Although the mean age of first sex for Policemen was 17.9 years, two thirds of Policemen (66%) reported that they were aged between 12 and 18 years when they first had sexual intercourse. Thirty eight Policemen reported that they did not know how old they were when they first had sex and three Policemen reported that they had not had sexual intercourse.

Figure 2 shows the distribution of reported numbers of sexual partners for Policemen who had sex in the last 12 months

Figure 2: Reported Number of Sexual Partners in the Last 12 Months, Policemen, Kiribati, 2008



The mean number of sex partners in the last 12 months was 2.1. Of the 151 Policemen who responded, 77 (51%) reported having only one partner, 23% reported two partners and 11% reported having three partners, and 15% reported having four or more partners in the last 12 months.

Table 42 shows reported prevalence of condom use for Policemen in their lifetime and for the last 12 months.

Table 42: Reported Condom Use, Policemen, Kiribati, 2008

	N	%
Used a condom first time had sex	20	10.4
Ever used a condom	129	67.2
Used a condom at last sex	21	12.4
Condom use in past 12 months:		
<i>Every time</i>	12	7.1
<i>Sometimes</i>	75	44.1
<i>Never</i>	83	48.8
Reasons for not using a condom:		
<i>I didn't want to</i>	61	35.5
<i>Sex doesn't feel as good</i>	43	25.0
<i>None easily available</i>	28	16.3
<i>Trust wife or partner</i>	22	12.8
<i>Partner didn't want to</i>	21	12.2
<i>Too embarrassed</i>	4	2.3
<i>Don't know how to use one</i>	4	2.3
<i>Too expensive</i>	1	0.6

Only one in ten Policemen (10%) reported using a condom the first time they had sex. Two thirds of Policemen (67%) reported that they had ever used a condom and one in eight (12%) used a condom the last time that they had sex. Only 7% of Policemen reported using a condom every time they had sex in the last 12 months.

The three most common reasons for not using a condom were 'I didn't want to' (35%) and 'sex doesn't feed as good' (25%) and 'none easily available' (16%)

Table 43 shows the reported prevalence of Policemen having sex with someone other than their partner while off island, prevalence of casual sex in the last 12 months and associated condom use.

Table 43: Other Sexual Behaviours, Policemen, Kiribati, 2008

	N	%
Ever had sex with someone (other than partner) while off-island	61	36.3
Has had a casual sex partner in the last 12 months	90	46.4
Used a condom the last time you had sex with a female casual partner	18	20.9
How often used a condom with casual female partners:		
<i>Always</i>	9	10.0
<i>Sometimes</i>	44	48.9
<i>Never</i>	37	41.1

Over one third of Policemen reported that they had ever had sex with someone other than their partner while off island.

Nearly half of the Policemen reported that they had a casual sex partner in the past 12 months (46%). Of these, only one in five Policemen (21%) reported that they had used a condom at last sex. Overall, only one in ten Policemen reported that they always used a condom with a casual partner in the last 12 months.

Policemen were asked whether they had ever paid or received money, goods or favours in exchange for sex (transactional sex).

Table 44 shows the prevalence of reported transactional sex behaviours. Only 171 of 193 men (89%) who reported ever having sexual intercourse responded to questions on ever having some form of transactional sex.

Table 44: Reported Prevalence of Transactional Sex, Policemen, Kiribati, 2008

	N	%
Ever given money in exchange for sex	6	3.5
Ever given goods or favours in exchange for sex	12	7.0
Ever received money in exchange for sex	3	1.8
Ever received goods or favours in exchange for sex	6	3.5
Paid or received money, goods or favours in the last 12 months	12	7.0
Frequency of condom use for those reporting transactional sex in last 12 months:		
<i>Every time</i>	2	22.2
<i>Sometimes</i>	3	33.3
<i>Never</i>	4	44.4

The most commonly reported type of transactional sex was 'ever giving goods or favours in exchange for sex' (7%). Overall, one in fourteen Policemen (7%) reported that they had taken part in some form of transactional sex in the last 12 months.

Only nine of twelve Policemen who reported transactional sex provided information on frequency of condom use. Of these, only one in five (22%) reported using a condom every time they had some form of transactional sex.

Male to male sex

Table 45: Reported Prevalence of Men Having Sex with Men, Policemen, Kiribati, 2008

	N	%
Has ever had sexual contact with another man	16	8.3
Has had sexual contact with another man in the last 12 months	11	6.0
Used a condom the last time had sex with a male partner	2	18.2
How often did you use a condom with male partners:		
<i>Always</i>	0	0.0
<i>Sometimes</i>	3	27.3
<i>Never</i>	8	72.7

Sixteen Policemen (8%) reported that they had ever had sexual contact with another man, while nine men refused to answer (5%). Eleven men (6%) reported having sexual contact with another man in the last 12 months, and one man declined to answer. Only one in five Policemen (18%) who had sexual contact in the last 12 months with a male reported that they had used a condom at last sex.

Substance use

Table 46 shows the reported frequency of alcohol consumption and the number of standard drinks normally consumed for Policemen.

Table 46: Reported Frequency and Consumption of Alcohol in the last 12 months, Policemen, Kiribati, 2008

	N	%
Frequency of alcohol use		
<i>Daily or almost daily</i>	18	10.5
<i>Weekly</i>	34	19.9
<i>Monthly</i>	16	9.4
<i>Less than monthly</i>	45	26.3
<i>Never</i>	58	33.9
Number of standard drinks usually consumed		
1 or 2	7	5.3
3 or 4	10	7.6
5 or 6	16	12.2
7,8 or 9	26	19.8
10 to 19	46	35.1
20 or more	26	19.8

Less than one third of Policemen reported consuming alcohol weekly or more often (30%), 35% monthly or less, and 34% reported that they had not consumed alcohol in the last 12 months.

Of those who reported consuming alcohol, one third (32%) reported that they normally consumed 5 to 9 standard drinks and a further 55% reported that they usually consumed 10 or more standard drinks.

Table 47 shows the reported prevalence of ever trying recreational drugs and using drugs in the last month.

Table 47: Reported Recreational Drug Use, Policemen, Kiribati, 2008

	Ever used		Used in last month		
	N	%	N	% of all respondents	% of ever users
Tobacco	86	43.9	81	41.3	94.2
Kava	103	52.6	96	49.0	93.2
Marijuana/cannabis	7	3.6	0	0.0	0.0
Speed/Ice/Ecstasy	2	1.0	0	0.0	0.0
Inhalants/Sniffings	3	1.5	0	0.0	0.0
Viagra/Cialis/sex enhancers	2	1.0	0	0.0	0.0

Over half of the Policemen reported that they had ever tried Kava (53%) and 49% reported that had consumed Kava in the last month. Tobacco use was also common, with 44% of Policemen ever using tobacco and 41% using tobacco in the last month.

Very few Policemen reported ever trying other recreational drugs and none reported using any other types of drugs in the last month. One Policeman reported that he had injected drugs in the last 12 months (cocaine) and three declined to answer questions on injecting drug use.

HIV knowledge and attitudes

All Policemen were asked to complete six standard questions on HIV knowledge (Table 48).

Table 48: Knowledge of HIV/AIDS, Policemen, Kiribati, 2008

	N	%
Having sex with only one, uninfected, faithful partner can reduce the chance of getting HIV:		
Yes	161	82.6
No	14	7.2
Don't know	20	10.3
Using condoms correctly can reduce the chance of getting HIV:		
Yes	173	89.2
No	5	2.6
Don't know	16	8.2
A healthy looking person can be infected with HIV:		
Yes	174	89.7
No	6	3.1
Don't know	14	7.2
A person can get HIV from mosquito bites:		
Yes	24	12.4
No	146	75.6
Don't know	23	11.9
A person can get HIV by sharing a meal with someone who is infected with HIV:		
Yes	9	4.7
No	169	87.6
Don't know	15	7.8
A mother can pass HIV to their baby during pregnancy, delivery or breastfeeding:		
Yes	175	90.2
No	4	2.1
Don't know	15	7.7

Approximately nine in ten Policemen knew that using condoms correctly can reduce the chance of getting HIV (89%), a healthy looking person can be infected with HIV (90%), a person *can't* get HIV by sharing a meal with someone who is infected with HIV (88%) and a mother can pass HIV to their baby during pregnancy, delivery or breastfeeding (90%).

The prevalence was lower for knowledge that having sex with only one, uninfected, faithful partner can reduce the chance of getting HIV (83%) and a person *can't* get HIV from mosquito bites (76%).

Table 49: Attitudes towards Those Living with HIV, Policemen, Kiribati, 2008

	N	%
If a member of your family became sick with HIV, would you be willing to care for her or him in your own household?		
Yes	156	80.4
No	22	11.3
<i>Don't know</i>	16	8.2
If a member of your family became ill with HIV, the virus that causes AIDS, would you want it to remain secret?		
Yes	47	24.2
No	123	63.4
<i>Don't know</i>	24	12.4
Would you buy fresh vegetables from a shopkeeper or vendor if you knew that this person had HIV?		
Yes	91	46.7
No	74	37.9
<i>Don't know</i>	30	15.4
In your opinion, if a female teacher has HIV and is not sick, should she be allowed to continue teaching in the school?		
Yes	98	50.5
No	53	27.3
<i>Don't know/not sure/depends</i>	43	22.2
A person should be able to keep his/her HIV status private (no one else needs to find out)		
<i>Agree</i>	28	14.4
<i>Strongly agree</i>	24	12.4
<i>Disagree</i>	69	35.6
<i>Strongly Disagree</i>	73	37.6
<i>Don't know</i>	194	100.0

Four in five Policemen (80%) reported that they would be willing to care for a family member with HIV in their own home (Table 48). Two thirds of Policemen (63%)

reported that if a family member became ill with HIV, they would not want it to remain a secret.

Approximately half of Policemen reported that they would be willing to have casual contact with a person if they knew they had HIV (Shopkeeper/vendor: 47%).

Only one quarter of Policemen agreed or strongly agreed that a person should be able to keep their HIV status private (27%).

Access to testing

Table 50 shows findings for respondents' confidence in the privacy of HIV testing, prevalence of HIV testing and receiving results, reasons for undergoing testing and knowledge of where to go for an HIV test.

Table 50: Reported Access to Testing, Policemen, Kiribati, 2008

	N	%
Believe it is possible for someone in the community to get a confidential test	120	61.9
Reasons why you can't get a confidential test		
<i>Testing site too public</i>	18	24.3
<i>Testing site too difficult to get to</i>	17	23.0
<i>HIV testing is not available</i>	4	5.4
<i>Everyone will find out</i>	3	4.1
<i>Opening hours not convenient</i>	2	2.7
Ever been tested for HIV	114	58.8
When did you have you last HIV test		
<i>In the last 3 months</i>	18	17.5
<i>In the last year</i>	30	29.1
<i>Over a year ago</i>	55	53.4
Why did you have your last HIV test:		
<i>As part of a physical exam</i>	48	42.5
<i>Blood donor</i>	54	47.8
<i>I asked for it</i>	11	9.7
Received result of HIV test	81	71.7
Know where to go to receive an HIV test	98	52.7
Has been given condoms in the last 12 months	103	55.7

Less than two thirds of Policemen reported that they believed that it was possible for someone to get a confidential HIV test in the community (62%). The two most common reasons for not believing that it was possible were that the testing site was too public (24%) and site too difficult to get to (23%).

Six in ten Policemen (59%) reported that they had ever had a HIV test and half of these tests were done in the last 3 to 12 months. Of those tested, most reported that

testing was done as part of a physical exam (43%) or when donating blood (48%). Three quarters of Policemen (72%) who had ever been tested, reported that they had received the results of their test.

Only half of Policemen (53%) reported that they knew where to go for an HIV test and just over half (56%) reported being given condoms in the last 12 months.

Exposure to HIV Education and Prevention Activities

Table 51 shows the proportions of Policemen who reported that they had exposure to messages about HIV from the media or within the community, and participation in HIV educational activities.

Table 51: Exposure to HIV Education and Prevention Activities, Policemen, Kiribati, 2008

	N	%
In the last 12 months has noticed any messages about HIV on:		
<i>Radio</i>	162	82.7
<i>Billboards</i>	86	43.9
<i>Posters</i>	83	42.3
<i>TV</i>	43	21.9
<i>None of the above</i>	9	4.6
Participated in HIV education activities in the last 12 months:		
<i>At work</i>	62	31.6
<i>In service training</i>	55	28.1
<i>Peer education</i>	43	21.9
<i>None of the above</i>	75	38.3

Radio was the most commonly reported medium for receiving messages about HIV in the community.

Approximately two thirds of Policemen (62%) reported that they had participated in HIV educational activities at work, during in service training or through peer education in the previous 12 months.

Symptoms of STIs

Table 52: Prevalence of Symptoms of STIs, Policemen, Kiribati, 2008

	N	%
Symptoms in the last month:		
<i>Unusual anal discharge</i>	5	2.6
<i>Unusual genital discharge</i>	2	1.1
<i>Rash, ulcer or sore around your genitals</i>	19	9.9
<i>Stinging, burning or pain when passing urine</i>	15	7.8
<i>At least one symptom</i>	30	15.5
Has seen someone for treatment of symptoms	8	26.7

One in six Policemen (16%) reported that they had at least one symptom in the last month which could indicate the presence of a STI (Table 52). The two most commonly reported symptoms were rash, ulcer or sore around the genitals (10%), and stinging, burning or pain when passing urine (8%).

Only one quarter of Policemen with symptoms (27%) reported that they had attended for treatment.

Prevalence of STIs and Blood Borne Infections,

Table 53 shows the prevalence of HIV and Hepatitis B surface antigen for Policemen.

Table 53: Prevalence of STIs and Blood Borne Infections, Policemen, Kiribati, 2008

	N Reactive/ positive	N tested	%	LCI	UCI
HIV	1	145	0.7	0.0	3.8
Hepatitis B (Antigen)	25	146	17.1	11.4	24.2

Fifty Policemen declined to undergo testing for HIV, Syphilis and Hepatitis B surface antigen.

Of the 146 policemen tested, twenty five (17%) were found to have the Hepatitis B surface antigen indicating prior exposure to the Hepatitis B virus.

Three policemen were found to have positive RPR tests, but as no confirmatory for Syphilis was available it is not possible to determine the prevalence of syphilis.

No new cases of HIV were identified during the study. One person known to be living with HIV participated in the study.

UNGASS indicators

Table 54 shows the findings for UNGASS indicators for Policemen.

Table 54: UNGASS indicators, Policemen aged 25 to 49 years, Kiribati, 2008

	N	%
<i>7. Percentage of men aged 15-49 who received an HIV test in the last 12 months and who know their results.</i>	28	16.7
<i>16. Percentage of men aged 15-49 who have had sexual intercourse with more than one sexual partner in the past 12 months</i>	61	36.3
<i>17. Percentage of men aged 15-49 who have had sexual intercourse with more than one sexual partner in the past 12 months reporting the use of a condom during their last sexual intercourse</i>	9	14.8
<i>19. Percentage of men reporting the use of a condom the last time they had anal sex with a male partner</i>	2	20.0

One in six Policemen aged 25 to 49 years reported that they had a HIV test in the last 12 months and knew their result.

Just over one third of Policemen aged 25 to 49 years reported that they had sexual intercourse with more than one partner in the last 12 months.

One in seven Policemen aged 25 to 49 years who reported having more than one partner in the last 12 months, also reported that they had used a condom at last sexual intercourse.

Ten Policemen aged 25 to 49 years reported having sex with a man in the last 12 months and two reported using a condom at last anal sex.

Behavioural Surveillance Survey of Youth

Survey Methodology

Table 55 shows an overview of the methodology used for the behavioural surveillance survey of youth in Kiribati.

Table 55: Overview of the Survey Methodology, Youth, Kiribati, 2008

Methodology	Survey details
Population	<i>Youth</i>
Survey type	<i>BSS</i>
Sampling method	<i>Convenience sample</i>
Inclusion criteria	<i>Youth aged 15 to 24 years</i>
Target Sample Size	200
Final Sample Size	176
Interview location(s)	<i>Locations' identified by peer educators. Sites included Betio town centre and Tarawa urban centre.</i>
Administration of the survey	<i>Interviewer administered questionnaire</i>
Type of consent	<i>Verbal</i>
Time required for interview	<i>20-25 minutes</i>
Data collection period	<i>March to June 2008</i>

Eligibility criteria

Youth were eligible to participate if they were aged 15 to 24 years. Subsequently, 15 participants were excluded because either age and/or sex were missing (15) and three excluded because questionnaires were incomplete. Eight youth who identified themselves as transgender were also excluded from the analysis as numbers were too small to present statistically valid information.

Results

Demographic characteristics.

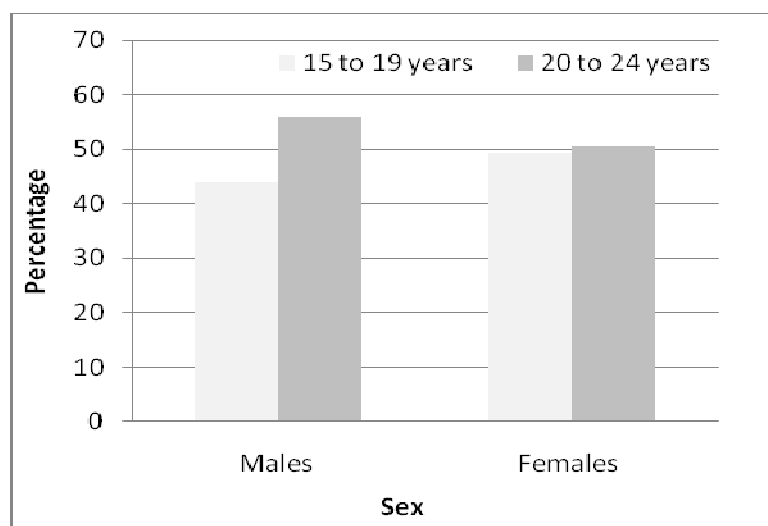
Table 56 shows the demographic characteristics of youth who took part in the survey.

Table 56: Reported Demographic Characteristics, Youth, Kiribati, 2008

	N	%		N	%
Sex			Age group (years)		
<i>Female</i>	85	48.3	<i>15 to 19</i>	82	46.6
<i>Male</i>	91	51.7	<i>20 – 24</i>	94	53.4
<i>Total</i>	176	100.0	<i>Total</i>	176	100.0
Place of Birth			Living arrangements		
<i>Kiribati</i>	171	97.7	<i>With immediate family</i>	89	50.9
<i>Aononraina</i>	3	1.7	<i>With relatives</i>	80	45.7
<i>Binikiti</i>	1	0.6	<i>With peers/friends</i>	4	2.3
<i>Total</i>	175	100.0	<i>Other</i>	2	1.1
			<i>Total</i>	175	100.0
Ethnicity			Education		
<i>Micronesian</i>	175	99.4	<i>Never attended school</i>	10	5.7
<i>Mixed ethnicity</i>	1	0.6	<i>Primary school</i>	48	27.6
<i>Total</i>	176	100	<i>Junior secondary school</i>	8	4.6
			<i>Senior secondary school</i>	102	58.6
Marital status			<i>Tertiary or higher education</i>	6	3.4
<i>Not married</i>	155	88.6	<i>Total</i>	174	100.0
<i>Married</i>	20	11.4			
<i>Total</i>	175	100.0			

Of the 176 participants included in the survey 52% were male and 48% were female. Figure 3 shows the age and sex distribution of respondents. For males, a higher proportion of respondents were aged 20 to 24 years (56%) compared to 15 to 19 years. For females, there were similar proportions of respondents in both age groups.

Figure 3: Age and Sex Distribution, Youth, Kiribati, 2008



All respondents reported that they were born on one of the Kiribati islands and all except one youth were of Micronesian ethnicity. Almost nine in every ten youth were unmarried, and 96% were living with either family or relatives.

One quarter of the youth reported that their highest level of education was primary schooling (27%), and ten youth (6%) reported that they had not attended school.

Sexual behaviours

Table's 57 and 58 show the prevalence of ever having sexual intercourse, age of the first sexual partner, prevalence of having sexual intercourse in the last 12 months, mean age of first sex and mean number of sexual partners in the last 12 months.

Table 57: Reported Sexual History (1), Youth, Kiribati, 2008

	Males		Females	
	N	%	N	%
Ever had sexual intercourse	74	81.3	28	33.3
Age of first sexual partner				
<i>Younger or same age</i>	31	50.8	13	48.1
<i>Less than 5 years older</i>	10	16.4	5	18.5
<i>5 or more years older</i>	20	32.8	9	33.3
<i>Total</i>	61	100.0	27	100.0
Has had sex in the last 12 months	42	46.2	25	29.8

N.B: These results should be used with caution, as estimates are based on statistically small numbers of youth.

Table 58: Reported Sexual History (2), Youth, Kiribati, 2008

	Males	Females
Age at first sex in years		
<i>Mean</i>	16.9	18.0
<i>Range</i>	11-23	14-23
Number of sex partners in the last 12 months		
<i>Mean</i>	3.6	3.3
<i>Range</i>	1-8	1-20

N.B: These results should be used with caution, as estimates are based on statistically small numbers of youth.

Over four in five males (81%) and one third of females (33%) reported that they had ever had sexual intercourse. One half of both males (51%) and females (48%) reported that their first sexual partner was younger or the same age as themselves.

Less than half of the males (46%) and one third of females (30%) reported that they had sex in the previous 12 months. The average number of partners in the last 12 months was 3.6 for males and 3.3 for females. Over half of females (56%) reported that they had only had one sexual partner in the last 12 months compared with only 21% of males.

Table 59 shows reported prevalence of condom use for youth.

Table 59: Reported Condom Use, Youth, Kiribati, 2008*

	N	%
Youth who reported ever having sex (N=102):		
1. Used a condom at first sex		
<i>Male condom</i>	8	7.8
<i>Female condom</i>	0	0
2. Ever used a condom		
<i>Male condom</i>	57	56.4
<i>Female condom</i>	2	2.0
Youth who reported having sex in the last 12 months (N=67):		
1. Frequency of condom use in the last 12 months		
<i>Every time</i>	2	3.3
<i>Sometimes</i>	32	52.5
<i>Never</i>	27	44.3
2. Used a condom at last sex		
<i>Male condom</i>	16	23.9
<i>Female condom</i>	2	3.0

N.B: These results should be used with caution, as estimates are based on statistically small numbers of youth.

Eight youth (8%) reported using a condom the first time they had sex. All reported using male condoms. Over half of youth who had ever had sex reported that they had used a male condom at least once (56%) and two youth reported ever using a female condom (2%).

For youth who reported having sex in the last 12 months (sexually active youth), 32 (52%) reported that they sometimes used a condom and 27 (44%) reported they never used a condom. Sixteen youth reported using a male condom the last time they had sex (24%).

The most common reasons for not using condoms were that none were easily available (37%), sex doesn't feel as good (12%), too drunk/too high to use one (10%) and partner didn't want to use one (10%).

Table 60 shows the reported prevalence of overlapping sexual relationships, group sex, off island sex and forced sex for youth who reported having sex in the last 12 months.

Table 60: Other Sexual Behaviours, Youth Who Reported Having Sex in the Last 12 Months, Kiribati, 2008

	N	%
Two or more sexual relationships in the same time period, in the last 12 months	19	28.8
Sex with more than two people at the same time	6	9.2
Been off been off island in the last 12 months	30	44.8
Had sex with someone (other than partner) while off island	15	22.4
Ever forced to have sex	13	21.0
Relationship with the person who forced sex:		
<i>Stranger</i>	5	45.5
<i>Partner</i>	4	36.4
<i>Neighbour</i>	2	18.2

N.B: These results should be used with caution, as estimates are based on statistically small numbers of youth.

Almost one third of sexually active youth reported that they had more than two sexual relationships at the same time (29%) and six (9%) reported having group sex in the last 12 months.

Nearly one quarter of sexually active youth (23%) reported that they had been off island in the last 12 months and had sex with someone other than their usual sexual partner.

A history of forced sex was reported by one in five youth who had had sex in the last twelve months (21%), although seven of the 69 sexually active youth did not answer this question. Seven of the youth who reported forced sex were male (54%) and the remaining six were female (46%). Strangers were the most commonly reported perpetrators (five) followed by partners (four) and neighbours (two).

Sexually active youth were asked whether they had paid or received money, goods or favours in exchange for sex during this period.

Table 61 shows the prevalence of reported transactional sex.

Table 61: Reported Transactional Sex, Youth Who Reported Having Sex in the Last 12 Months, Youth, Kiribati, 2008

	N	%
Received money, goods or favours in exchange for sex in last 12 months	10	14.9
Paid money, goods or favours in exchange for sex in last 12 months	11	16.9
Either received or paid money, goods or favours in exchange for sex in last 12 months	18	26.9

N.B: These results should be used with caution, as estimates are based on statistically small numbers of youth.

Six males and four females reported receiving money, goods or favours in exchange for sex in the last 12 months. Of the eleven youth who reported paying money, goods or favours in exchange for sex, ten were males and one was female.

Overall, over one quarter of sexually active youth (27%) had either received and/or paid money, goods or favours in exchange for sex.

Male to male sex

Table 62 the reported prevalence of male to male sex for youths in Kiribati.

Table 62: Reported Male to Male Sex, Youth, Kiribati, 2008

	N	%
Ever had sexual contact with another man	26	35.6
Had sexual contact with another man in the last 12 months	13	17.8
Used a condom at last anal sex	5	38.5
	Mean	Range
Number of male partners in the last 12 months	2.1	1 to 5

N.B: These results should be used with caution, as estimates are based on statistically small numbers of youth.

Over one third (36%) of male youths who reported ever having sexual intercourse reported that they had ever had sexual contact with another man. One half of these

(13) reported having sexual contact with another man in the last 12 months (18% of sexually active males).

Condom use at last sex was reported by just over one third of male youth who had sex with males in the last 12 months. The reported number of partners ranged from one to five, with an average of 2.1 partners.

Reported Alcohol and Substance use

Table 63 shows reported frequency and quantities of alcohol consumed by youth in Kiribati.

Table 63: Reported Frequency and Consumption of Alcohol, Youth, Kiribati, 2008

	Males		Females	
	N	%	N	%
Frequency of alcohol use				
<i>4 or more times a week</i>	22	27.8	5	6.2
<i>2 to 3 times a week</i>	22	27.8	13	16.0
<i>2 to 4 times a month</i>	5	6.3	1	1.2
<i>Monthly or less</i>	15	19.0	5	6.2
<i>Never</i>	15	19.0	57	70.4
Number of standard drinks usually consumed				
<i>1 to 2</i>	1	1.9	2	9.5
<i>3 to 4</i>	6	11.5	6	28.6
<i>5 to 9</i>	21	40.4	12	57.1
<i>10 or more</i>	24	46.2	1	4.8

A higher proportion of females (70%) compared with males (19%) reported that they did not consume alcohol. Over half of males (56%) reported consuming alcohol two or more times per week compared with only one in five females (22%).

Of youth who reported consuming alcohol, forty five males (86%) and thirteen females (62%) reported that they consumed 5 or more standard drinks in a usual drinking session.

Higher proportions of males compared to females reported using all drugs.

Over half of the males reported ever using Kava (54%) and over one third reported using Kava in the last month (35%). Tobacco was the second most commonly used drug for males, with 47% reporting ever trying and over one quarter using tobacco in the last month (26%).

For females, one in five (18%) reported ever using Kava and only 4% reported using Kava in the last month. Tobacco was the most commonly reported drug used by females, with nearly one in five females ever trying tobacco (18%) and 7% using Tobacco in the last month.

Although over one in ten males reported ever trying Marijuana and inhaling Butane/Gas, only one male reported using Marijuana and two reported using Butane/Gas in the last month.

Six females (7%) reported ever using Marijuana and 5 (6%) reported ever using Butane/Gas. However, no females reported using these drugs in the last month.

Two males and one female reported ever using sex enhancing drugs, though no respondents reported using these drugs in the last month.

Table 64 shows the reported prevalence of use of recreational drugs and use in the last month.

Table 64: Reported Recreational Drug Use, Youth, Kiribati, 2008

	Ever used		Used in last one month		
	N	%	N	% of all respondents	% of ever users
Males					
Tobacco	43	47.3	24	26.4	55.8
Kava	49	53.8	32	35.2	65.3
Marijuana/cannabis	12	13.2	1	1.1	8.3
Sniffings (e.g. butane/gas/glue)	11	12.1	2	2.2	18.2
Viagra/Cialis/sex enhancers	2	2.2	0	0.0	0.0
Females					
Tobacco	16	18.8	6	7.1	37.5
Kava	15	17.6	3	3.5	20.0
Marijuana/cannabis	6	7.1	0	0.0	0.0
Sniffings (e.g. butane/gas/glue)	5	5.9	0	0.0	0.0
Viagra/Cialis/sex enhancers	1	1.2	0	0.0	0.0

HIV knowledge and attitudes

Table 65 shows the proportions of youth who had heard of HIV prior to the survey, knew someone with HIV/AIDS, and knowledge of HIV transmission, prevention and common fallacies for youth who reported that they had heard of HIV/AIDS.

Table 65: Knowledge of HIV/AIDS, Youth, Kiribati, 2008

	Males		Females	
	N	%	N	%
Before this survey, had heard of HIV/AIDS	85	94.4	77	90.6
Know someone who is infected with HIV/AIDS or has died of an AIDS related condition	34	42.0	42	57.5
Having sex with only one, uninfected, faithful partner can reduce the chance of getting HIV:				
True	62	76.5	50	69.4
False	7	8.6	12	16.7
Don't know	12	14.8	10	13.9
Using condoms correctly can reduce the chance of getting HIV:				
True	75	91.5	67	93.1
False	4	4.9	4	5.6
Don't know	3	3.7	1	1.4
A healthy looking person can be infected with HIV:				
True	68	82.9	53	73.6
False	5	6.1	15	20.8
Don't know	9	11.0	4	5.6
A person can get HIV from mosquito bites				
True	10	12.2	6	8.3
False	55	67.1	57	79.2
Don't know	17	20.7	9	12.5
A person can get HIV by sharing a meal with someone who is infected with HIV:				
True	1	1.2	7	9.7
False	68	82.9	61	84.7
Don't know	13	15.9	4	5.6
A mother can pass HIV to their baby during pregnancy, delivery or breastfeeding:				
True	65	79.3	60	83.3
False	2	2.4	3	4.2
Don't know	15	18.3	9	12.5

Over nine in ten males (94%) and females (91%) reported that they had heard of HIV or AIDS prior to taking part in the survey. Of these, 42% of males and over half of females (57%) reported that they knew someone who has HIV/AIDS or had died of an AIDS related condition.

Over 90% correctly responded that using a condom correctly every time can reduce the chance of acquiring HIV (over 90% for both sexes).

For males, correct responses were lowest for knowing that a person cannot acquire HIV from mosquito bites (67% correctly responded).

For females, correct responses were lowest for knowing that having sex with only one, uninfected, faithful partner can reduce the chance of getting HIV (69% correctly responded).

Table 66 shows responses to questions related to attitudes towards those living with HIV in the community.

Attitudes were generally similar for both sexes, although a higher proportion of males (77%) compared to females (69%) agreed that they would be willing to care for a family member with HIV in their own home. In addition, approximately half of females and 40% males said that they would not want it to remain a secret if a family member had HIV.

One in five male (49%) and female (53%) youth reported that they would be willing to purchase fresh vegetables from a vendor or shopkeeper if they knew the person had HIV.

Just over half of the males (52%) and two thirds of females (67%) either agreed or strongly agreed that a person should be able to keep his/her HIV status private.

Table 66: Attitudes towards Those Living with HIV, Youth, Kiribati, 2008

	Males		Females	
	N	%	N	%
If a family member had HIV, would you be willing to care for him/her in your home				
Yes	69	76.7	58	69.0
No	12	13.3	21	25.0
Don't Know	9	10.0	5	6.0
If a member of your family became ill with HIV, the virus that causes AIDS, would you want it to remain secret:				
Yes	37	40.7	26	31.0
No	16	39.6	43	51.2
Don't Know	18	19.8	15	17.9
Would you buy fresh vegetables from a shopkeeper or vendor if you knew that this person had HIV:				
Yes	45	49.5	44	53.0
No	31	34.1	31	37.3
Don't Know	15	16.5	8	9.6
In your opinion, if a female teacher has HIV and is not sick, should she be allowed to continue teaching in the school:				
Should be allowed	46	50.5	36	42.9
Should not be allowed	21	23.1	25	29.8
Don't know/not sure/depends	24	26.4	23	27.4
A person should be able to keep his/her HIV status private (no one else needs to find out):				
Agree	11	12.2	10	11.9
Strongly agree	36	40.0	46	54.8
Disagree	21	23.3	10	11.9
Strongly disagree	4	4.4	5	6.0
Don't Know	18	20.0	13	15.5

Access to testing

Table 67 shows the prevalence of Youth believing that it is possible to obtain a confidential HIV test and access to testing for youth.

Table 67: Reported Access to Testing, Youth, Kiribati, 2008

	Males		Females	
	N	%	N	%
Believe it is possible for someone in the community to get a confidential test				
Yes	26	28.9	34	40.5
No	27	30.0	20	23.8
Don't know	37	41.1	30	35.7
Reasons why you can't get a confidential test				
<i>HIV testing is not available</i>	23	35.9	15	30.0
<i>Testing site too difficult to get to</i>	9	14.1	11	22.0
<i>Testing site too public</i>	7	10.9	6	12.0
<i>Everyone will find out</i>	0	0.0	2	4.0
<i>Opening hours not convenient</i>	3	4.7	1	2.0
Ever been tested for HIV	34	37.8	12	14.5
When did you have you last HIV test				
<i>In the last 3 months</i>	10	32.3	5	41.7
<i>In the last year</i>	18	58.1	6	50
<i>Over a year ago</i>	3	9.7	1	8.3
Why did you have your last HIV test?				
Blood donor	22	64.7	6	50.0
I asked for it	8	23.5	4	33.3
Medical check	2	5.9	1	8.3
Received result of HIV test	33	97.1	12	100

Approximately 7 in 10 males and 6 in 10 females either did not believe they could get a confidential HIV test or were unsure if they could get one in their community. The main reasons given for not being able to obtain a confidential test were that HIV testing was not available, the testing site is too difficult to get to and the testing site is too public.

Over one third of males (38%) and 1 in 7 females (14.5%) reported ever having a HIV test, and of these approximately 90% had been tested in the last year.

Two thirds of males reported that they were tested because they donated blood (65%) and one quarter (24%) reported that they asked to be tested. For females, one half reported that they were tested because they donated blood (50%) and one third (33%) reported that they asked to be tested. Almost all knew their test result.

Exposure to Prevention Activities

Table 68: Exposure to HIV Prevention and Educational Activities, Youth, Kiribati, 2008

	Males		Females	
	N	%	N	%
Heard messages about HIV on radio	85	93.4	74	87.1
Read messages about HIV in newspapers	73	80.2	63	74.1
Seen messages about HIV on TV	42	46.2	32	37.6
Attended HIV community event	36	39.6	35	41.2
Participated in HIV peer education program	32	35.2	39	45.9
Participated in HIV education program	23	25.3	23	27.1
Seen 'The Love Patrol'	19	20.9	16	18.8
Heard of the VCCT services available	19	20.9	22	25.9

Table 68 shows that radio was the most common form of receiving messages about HIV from the media for both sexes (Males: 93%; Females: 87%).

One third of males (35%) and 46% of females had participated in peer education and one quarter of both sexes reported participating in a HIV educational program.

One in five youth of both sexes reported that they had seen "The Love Patrol" and a similar proportion had heard of the VCCT services available on South Tarawa.

History of STIs and Symptoms of STIs in the last month

Table 69 shows the reported history of STIs for youth.

Table 69: Reported History of STIs, Youth, Kiribati, 2008

	Males		Females	
	N	%	N	%
Has ever been diagnosed with a STI by a doctor or health worker	6	6.7	4	4.5
Infection(s) respondents were diagnosed with				
<i>Gonorrhoea</i>	3	3.4	1	1.3
<i>Syphilis</i>	2	2.2	0	0.0
<i>Trichomonas</i>	1	1.1	2	2.5
<i>Genital Herpes</i>	0	0.0	0	0.0
<i>Genital Warts</i>	0	0.0	0	0.0

One in fifteen males and 1 in 22 females reported that they had ever been diagnosed with an STI. The most commonly diagnosed STIs were Gonorrhoea for males and Trichomonas for females.

Table 70 shows the reported prevalence of symptoms in the last month which may indicate the presence of a STI.

Table 70: Prevalence of Symptoms for STIs, Youth, Kiribati, 2008

	Males		Females	
	N	%	N	%
Symptoms in the last month:				
Unusual genital or anal discharge				
Yes	1	1.1	7	8.2
No	48	52.7	72	84.7
No answer/refused	42	46.2	6	7.1
Rash, ulcer or sore around genitals				
Yes	6	6.7	7	8.2
No	30	33.3	72	84.7
No answer/refused	54	60.0	6	7.1
Stinging, burning or pain when passing urine (males only):				
Yes	5	5.6		
No	69	76.7		
No answer/refused	16	17.8		
Lower abdominal pain in between periods or during sex (females only):				
Yes			18	22.0
No			56	68.3
No answer/refused			8	9.8
Has sought treatment for symptoms				
	5	62.5	7	35
If you were worried you had a STI where would you go for help:				
Health Clinic	52	59.8	42	51.9
Hospital	28	32.2	36	44.4
Other	7	8.0	3	3.7

The most commonly symptoms reported by males were rash, ulcer or sore around the genitals (7%), and stinging, burning or pain when passing urine (6%). Of note, 42 males declined to answer the question on genital or anal discharge (46%) and 54 declined to answer the question on rash, ulcer and sore around the genitals.

Lower abdominal pain between periods or during sex in the last month was the most commonly reported symptom by females (22%).

Although over 90% of youth reported that they would go to a hospital or health clinic for advice if they thought they had an STI, only two thirds of males and one third of females reported that they had sought treatment for their symptoms.

UNGASS indicators

Table 71 shows the findings for UNGASS indicators for Youth.

Table 71: UNGASS indicators, Youth, Kiribati, 2008

	Males		Females	
	N	%	N	%
<i>7. Percentage of women and men aged 15-24 who received an HIV test in the last 12 months and who know their results.</i>	18	19.8	6	7.1
<i>13. Percentage of young women and men aged 15-24 who both correctly identify ways of preventing the sexual transmission of HIV and who reject major misconceptions about HIV transmission</i>	44	48.4	33	38.8
<i>15. Percentage of young women and men aged 15-24 who have had sexual intercourse before the age of 15</i>	7	7.7	1	1.2
<i>16. Percentage of women and men aged 15-24 who have had sexual intercourse with more than one sexual partner in the past 12 months</i>	19	20.9	9	10.6
<i>17. Percentage of women and men aged 15-24 who have had sexual intercourse with more than one sexual partner in the past 12 months reporting the use of a condom during their last sexual intercourse*</i>	6	31.6	3	33.3
<i>19. Percentage of men reporting the use of a condom the last time they had anal sex with a male partner</i>	5	38.5		

One in five males reported that they had a HIV test in the last 12 months and knew their result compared with one in fourteen females.

Half of males (48%) and one in four females both correctly identified ways of preventing sexual transmission of HIV and rejected the three major misconceptions about HIV transmission.

One in five males (21%) and one in ten females (11%) reported that they had sexual intercourse with more than one partner in the last 12 months.

One in three males and females who reported having more than one partner in the last 12 months, also reported that they had used a condom at last sexual intercourse.

Of thirteen males who reported having sex with another male in the last 12 months, five reported they had used a condom at last anal sex.

Discussion

No new cases of HIV were detected among any of the groups who took part in the surveys conducted in Kiribati. However 50 of the 196 Policemen surveyed declined blood testing.

STI testing suggest that the prevalence of Chlamydia is high among Antenatal women (15-24: 12.8%, 25-46: 8.5%), although it has not increased since the previous survey in 2005. One in twenty Antenatal women aged 15 to 24 years (5%) was also found to have either an early or previous syphilis infection, and current infections are a health risk for both mother and child.¹¹

A high proportions of Antenatal women, Seafarers and Policemen were found to have acquired the Hepatitis B surface antigen (Antenatal women: 16%, Seafarers: 27%, Policemen: 17%), for which unprotected sexual intercourse is a known risk factor. This is of concern because of the potential long-term health implications that can be associated with this condition.¹² As the risk factors for acquiring HIV are similar to other STI's, the high prevalence of these conditions is an important finding.

Although most respondents had heard of condoms, and were aware that condoms can reduce the chance of acquiring HIV, only 18% of Antenatal women reported that they had ever used a one. Seafarers reported condom use in the last twelve months was 58%, but only 11% used a condom last time they had sex. Reported ever use of condoms for Youth was 58% and was a little higher Policemen (67%), however only 27% of sexually active Youth and 12% of sexually active Policemen reported using a condom at last sex.

Risk behaviours for Antenatal women included: 17% of women reporting having more than one sex partner in the last 12 months, and 9% of women reporting two or more simultaneous relationships in the last 12 months.

Risk behaviours for Seafarers included: 47% of all men reporting having more than one sex partner in the last 12 months, 27% of sexually active seafarers have four partners or more in the last 12 months, 47% of sexually active men reporting paying money for sex, 23% giving goods or favours for sex in the last 12 months, 16% of men reporting two or more simultaneous relationships in the last 12 months and inconsistent condom use.

Risk behaviours for Policemen included: 49% reporting having more than one sex partner in the last 12 months, 7% of sexually active Policemen taking part in some kind of transactional sex in the last 12 months and 46% reporting having a casual

sexual relationship in the last 12 months, 6% had sexual contact with another male in the last 12 months and inconsistent condom use.

While less than half (46%) of male youth and less than a third (30%) of female youth reported having sex in the last twelve months, there were risk behaviours reported amongst those who were sexually active. Risk behaviours for Youth included: 79% males and 44% females reporting more than one sexual partner in the last 12 months, one third of reporting overlapping sexual relationships (29%), and six youth (9%) reporting having group sex in the last 12 months. Transactional sex (sex in exchange for money, goods or favours) was high amongst sexually active youth surveyed at 27%. The percentage of male youth surveyed who had had sexual contact with a man was 29%, or 36% of sexually active youth.

While 70% of females and 20% of males reported never drinking alcohol, of those who did, 86% of males and 62% of females usually consumed more than five standard drinks in a session (binge drinking).

While a high proportions of Antenatal women aged 15 to 24 years and Youth correctly answered individual questions on HIV transmission and common misconceptions used to assess baseline knowledge, less than half could answer all five questions correctly (Antenatal women aged 15 to 24 years: 44%, Male Youth: 48%, Female Youth: 39%). This suggests that community awareness of HIV has still not achieved satisfactory levels.

In addition, only 57% of Antenatal women, 47% of Policemen and 51% of Youth reported that they would have casual contact with a shopkeeper or vendor if they knew they had HIV suggesting concern about contracting the illness through casual contact and/or fear of discrimination through association with persons who have HIV. In contrast, 77% of Seafarers indicated that they would be willing to have casual contact. This information should be used when revising ongoing HIV educational campaigns run by the MOH.

Most women surveyed attended for antenatal care during the second or third trimester of pregnancy. In addition, over 75% of women reporting symptoms which could be associated with an STI had sought treatment, suggesting a lack of awareness of STI symptoms. Increased awareness of the importance of attending in early pregnancy and seeking treatment for potential STIs is recommended to minimise potential complications for women and babies.

Only 23% of women aged 15 to 24 years and 34% aged 25 to 46 years reported that they had planned their pregnancy. Of those who did not plan their pregnancy, only a quarter used any contraceptives in the three months prior to becoming pregnant. Identification of barriers associated with contraceptive use and increased awareness of available contraceptives is needed to reduce unplanned pregnancies.

Recommendations

A number of the recommendations that were made following the first round of SGS surveys in 2004/05 are still valid following this more recent round.

- Implement staggered surveys when two or more population groups are to be surveyed. Due to limited personnel it is difficult for PICTs to manage several surveys simultaneously. If surveys are staggered logistical or technical problems will be more readily identified and resolved, and personnel will have increased opportunity to gain sustainable skills.
- Use probabilistic sampling strategies which help to ensure representative samples and statistically valid estimates from surveys. When convenience sampling is used, there is no way of verifying whether the sample is representative of the population of interest. Future surveys therefore cannot be reliably compared with previous findings. Probabilistic sampling can be achieved even when sampling frames (population lists) are unavailable.
- Include high risk groups in future SGS surveys, for example sex workers or men who have sex with men. This will require formative research e.g. group mapping, estimation of population size and prevalence of risk behaviours in the population(s) of interest. Generic questionnaires can then be modified to include relevant behaviours and use appropriate language and terms.

Other recommendations based on findings:

- Use findings from the surveys to improve HIV prevention activities, including educational activities targeting groups at greater risk for infection.
- Present data to key personnel who can implement changes in policy and programs.
- Modify existing activities and programs using findings from surveys, e.g. sexual behaviours, condom use, knowledge and attitudes on HIV, access to testing for HIV and STIs
- Continue with STI screening programs implemented in 2008

Indicators UNGASS and MDG

This is a list of relevant UNGASS indicators

Indicators	
National Commitment and Action	
National Programmes: blood safety, antiretroviral therapy coverage, prevention of mother-to-child transmission, co-management of TB and HIV treatment, HIV testing, prevention programmes, services for orphans and vulnerable children, and education.	
7. Percentage of women and men aged 15-49 who received an HIV test in the last 12 months and who know the results	Population-based survey
8. Percentage of most-at-risk populations that have received an HIV test in the last 12 months and who know the results	Behavioural surveys
9. Percentage of most-at-risk populations reached with HIV/AIDS prevention programmes	Behavioural surveys
Knowledge and Behaviour	
13. Percentage of young women and men aged 15–24 who both correctly identify ways of preventing the sexual transmission of HIV and who reject major misconceptions about HIV transmission*	Population-based survey
14. Percentage of most-at-risk populations who both correctly identify ways of preventing the sexual transmission of HIV and who reject major misconceptions about HIV transmission	Behavioural surveys
15. Percentage of young women and men who have had sexual intercourse before the age of 15	Population-based survey
16. Percentage of adults aged 15–49 who have had sexual intercourse with more than one partner in the last 12 months	Population-based survey
17. Percentage of adults aged 15–49 who had more than one sexual partner in the past 12 months who report the use of a condom during their last intercourse*	Population-based survey
18. Percentage of female and male sex workers reporting the use of a condom with their most recent client	Behavioural surveys
19. Percentage of men reporting the use of a condom the last time they had anal sex with a male partner	Behavioural surveys
20. Percentage of injecting drug users who reported using sterile injecting equipment the last time they injected	Special survey
21. Percentage of injecting drug users who report the use of a condom at last sexual intercourse	Special survey
Impact	
22. Percentage of young women and men aged 15–24 who are HIV infected*	HIV sentinel surveillance and
23. Percentage of most-at-risk populations who are HIV infected	HIV sentinel surveillance

*Millennium Development Goals indicator

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