BEHAVIOURAL SURVEILLANCE SURVEY

among youth in the Cook Islands 2012.

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Penrhyn
Rakahanga
Pukapuka
Northern Group
Manihiki
Nassau
Suwarrow
Cook Islands
worldatlas.com
South Pacific Ocean
150 mi
150 km
Palmerston
Aitutaki
Manuae
Southern Group
Mitiaro
Takutea
Atiu
Mauke
CLICK HERE FOR LARGER MAP
Rarotonga
Avarua
Mangaia

Philippines
Marshall Islands
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ASIA
Palau
Micronesia
1400 mi
1400 km
Papua New Guinea
EQUATOR
0°
Nauru
Kiribati
Cook Islands
Pacific Ocean
Indonesia
Tuvalu
East Timor
Solomon Islands
Tahiti (France)
Vanuatu
Fiji
Samoa
Tonga
TROPIC OF CAPRICORN
23.5°
Australia
OCEANIA
Sydney
New Zealand
Tasmania (Australia)
Indian Ocean
180°

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List of Abbreviations

AIDS	Acquired Immune Deficiency Syndrome
ANC	Antenatal Clinic
BSS	Behavioural Surveillance Survey
C.trachomatis	Chlamydia trachomatis
FHI	Family Health International
GAPR	Global AIDS Progress Report
GFATM	Global Fund to Fight AIDS, Tuberculosis and Malaria
GDP	Gross Domestic Product
HIV	Human Immunodeficiency Virus
IDU	Injecting Drug Use
IQR	Inter Quartile Range
MDG	Millennium Development Goals
MOH	Ministry of Health
NHSTC	National HIV STI and Tuberculosis Committee
NGO	Non-Governmental Organisation
NRL	National Reference Laboratory
PCR	Polymerase Chain Reaction
PICTs	Pacific Island Countries and Territories
PLWHA	People living with HIV or AIDS
SGS	Second Generation HIV Surveillance
SPC	Secretariat of the Pacific Community
STI	Sexually Transmitted Infection
TPPA	Treponema Pallidum Particle Agglutination test
UNGASS	United Nations General Assembly Special Session
UNICEF	United Nations Children's Fund
VCCT	Voluntary Confidential Counselling and Testing
VDRL	Venereal Diseases Research Laboratory test

Executive Summary

Executive summary

In 2012, a behavioural survey among youth was conducted. Its aims were to assess the knowledge, attitudes and risk behaviours among youth in order to better identify how to deliver targeted interventions aiming to reduce risk of HIV and STI infections. 674 youth were recruited from various islands in the Cook Islands. Key findings from the survey are listed below:

- There was an encouraging increase in HIV testing and receipt of results. 31% of youth had been tested in 2012, up from 16% in 2006. We expect to see an increase in this number now that the Cook Islands have the capacity to conduct both screening and confirmatory testing in country. There was a slight decrease in those who believed it was possible for someone to get a confidential HIV test in Cook Islands down to 55% from 64% in 2006. The most common reason for reporting it wasn’t possible related to issues around confidentiality (51%).

- Participants acquired knowledge about sex through a variety of sources. The most useful sources reported being via lovers, followed by sex education in school. There are opportunities to increase knowledge related to HIV and STI transmission and prevention and voluntary testing among the youth through the strengthening of sex education in school so that youth receive reliable information. 66% of youth felt they were able to control the level and kinds of sexual activity (Figure 3).

- Behaviours that place youth at risk include early sexual debut with 40% of youth having had sexual intercourse prior to 15. This is an increase from the 31% observed during the 2006 survey. Low condom use at first sex at 42%. Almost a quarter of the participants (145) reported having ever had forced sex, (similar to the 2006 youth survey) and 12% (75) reported forced sex in the last 6 months.

- It should be noted that 80% of forced sex was by someone close to the person.
- High alcohol consumption with 73% of youth consuming alcohol in the past year, down from 80% in 2006. 61% of youth that were under 18 years had consumed alcohol in the past year.

- Low transactional sex with 8% having paid for sex and 10% paid to have sex.
- Reported illicit drug use was generally very low, however 19 respondents reported use of injecting drugs (heroin and cocaine), 13 of whom had been off island in the past year.

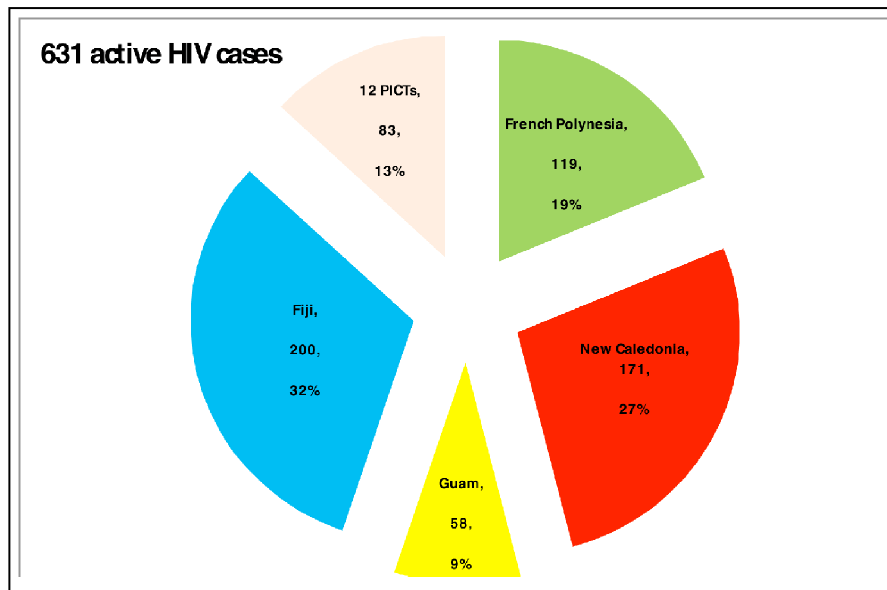
The results of this survey provide updated follow up information on behavioural risk factors among youth and will help to inform the strategic health direction in the Cook Islands.

Introduction

Cook Islands overview: Cook Islands consist of 15 islands and atolls spread over an area of 2 million km^2 located in the South Pacific Ocean. Although widely dispersed, the islands can be categorized into two main clusters: the northern and southern groups. The southern group comprises nine islands and includes approximately 90 per cent of the total land mass. Most islands of the southern group have fertile soils and tropical vegetation, and this group includes Rarotonga, the largest and most populated island. The northern group consists of six islands, primarily low lying coral atolls. The population of Cook Islands was estimated at 15,324 in 2011(SPC, 2012). There has been a population shift from the outer islands to the main population centers in Rarotonga and Aitutaki with 85% (13,097) living there. Life expectancy at birth is 72.8 years and it has an infant mortality rate of 11.6 deaths per 1,000 live births. The economy is largely dependent on tourism with a majority of tourists coming from New Zealand.

HIV epidemiology in the Pacific region: Excluding PNG, there is a very low prevalence across the region. Five countries (Cook Islands, Nauru, Niue, Pitcairn and Tokelau) have no known people living with HIV as of December 31st 2011. The estimated prevalence among adults aged between 15-49 years in the remaining 16 PICTs is low and ranges from 0.002 % to 0.078 %. Since 1984 a total of 1,609 HIV cases have been reported. The 1,363 cumulative HIV cases in four PICTs (Fiji (UNAIDS, 2012), New Caledonia (DASS, 2012), French Polynesia (BISES, 2012) and Guam (DPHSS, 2012)) represent 84 % of all reported cases, with only 246 (16%) from the remaining 17 PICTs. The current distribution of the 631 active cases as of December 31st 2011 is similar (figure1) (Wanyeki, 2011).

Figure 2: HIV case distribution by PICT



Transmission routes: The primary mode of HIV transmission in the 21 PICTs is heterosexual contact, with over half of all HIV infections attributed via this route. Over one quarter (27%) of HIV infections were via men who have sex with men and five percent via injecting drug use (IDU). This varies significantly by country.

Cook Islands STI health services: Routine HIV testing is conducted for all blood donors and antenatal (ANC) women. STI and HIV tests can be conducted in all clinics, however, the majority of other clients only use these services when they have symptoms or think they may have been at risk of acquiring an STI. Clinic hours are between 8am-4pm. The main laboratory is situated on Rarotonga and all outer islands specimens are sent to Rarotonga to be tested. Private Doctors send their patients and/ or specimens to the hospital laboratory for testing so all STI results are captured and maintained centrally. There are 5 accredited VCCT sites, two within the Ministry of Health on Rarotonga at the ANC department of Rarotonga hospital and in the outpatient division of Tupapa Community Health Clinic. Two are NGO clinics (Cook Islands Family Welfare Association and Cook Islands Red Cross Society) and one is an outer island site at Aitutaki Hospital. Mobile VCCT outreach was conducted on the islands of Aitutaki, Pukapuka and Mangaia in 2012. HIV became a reportable infection in 2004. As of December 31st 2012 Cook Islands has reported a total of 3 HIV cases. These were recorded in 1997, 2003 and 2010. It is suspected that infection for all 3 cases occurred outside of the Cooks. The only case that was diagnosed in the Cook Islands was in 2010. None of these cases currently live in the Cook Islands. 2,490 HIV tests

were conducted in 2010/2011 with only 1 positive identified and 1,300 were conducted in 2012.

SGS background: Second generation surveillance (SGS) involves strengthening the existing HIV surveillance systems to improve the quality and breadth of information. In 2006 a behavioural survey among youth (SGS, 2006) was undertaken. An STI prevalence survey was also conducted among antenatal women. In 2009, a behavioural survey was conducted among akava'ine (SGS_MSM, 2009) and men who have sex with men (MSM). Akava'ine is a local Cook Islands term for transgender males who do not identify with or live according to their biological or birth gender.

Survey goal: From August to November 2012 the behavioural survey among youth was repeated. Its aims were to assess the knowledge, attitudes and risk behaviours among youth in order to better identify how to deliver targeted interventions to reduce risk of HIV and STI infections. It also aimed at evaluating if there were any significant changes in behaviour over time. This paper describes and discusses the results.

(Cook Islands young people at an HIV workshop)

Methodology

Methodology

Table 1: Survey methodology summary

Methodology	Survey details
Population	Youth
Survey type	Behavioural survey
Sampling method	Convenience
Inclusion criteria	Resident youth aged between 15-24 years of age
Target Sample Size	590
Final Sample Size	674
Interview location(s)	Youth gathering locations in Rarotonga, Aitutaki, Atiu, Mangaia, and Mauke. Youth from the Northern group were interviewed when they visited Rarotonga for National celebrations.
Survey administration	Self administered by completing a questionnaire on a Samsung Galaxy tablet with a trained surveyor available to clarify any questions
Type of consent	Verbal.
Time required for interview	30-40 minutes
Specimens collected	None
Laboratory testing	None
Data collection period	August 1st – November 9th 2012

Questionnaire

The questionnaire was based on the 2006 survey that was initially developed by FHI and was modified for use in the Pacific by the WHO, SPC and CDC. It was further modified in 2012 by Cook Islands. Using survey software (Survey, 2012) it was then uploaded into a Galaxy tablet 10.1. Standard questions used to measure key indicators enables results to be compared over time and across countries. An additional set of questions around alcohol were added by the NCD team and an additional set of questions around sexuality were added in by a PhD student conducting independent research on sexuality among youth. A copy of the questionnaire is available (Appendix A).

Research approval

The SGS survey protocol was approved by the health research committee. Appendix B contains a copy of the approval letter from the committee.

Sampling method and recruitment

Convenience sampling was utilized. Initially seven young people comprising of Ministry of Health staff and youth peer educators were trained to explain the questionnaire, use the tablets and recruit participants. One surveyor dropped out leaving 6 to conduct the surveys. Surveyors were assigned to regions they identified with. In general they spoke the local language of the areas they would recruit from. For each completed survey the recruiter received an allowance of 10 NZ$. Participants that completed the survey were given an incentive worth 10 NZ$ in the form of either a cell phone top up, a movie voucher, a petrol voucher or a calling card. Initially recruiters went house to house but this was then changed to venues where youth congregate such as sporting venues, hostels, eateries and other venues where youth congregate. Participants from the northern group were interviewed in Rarotonga during the National celebration ceremonies in August.

Sample size

The 2006 census (Statistics, 2006) was used to obtain a breakdown of the population aged between 15-24. Twenty percent of this population was to be surveyed. An assumption was made that 15% of participants would decline to participate and this was factored into the sample size estimation. Youth were proportionally sampled from all population settlements across the Cook Islands.

Table 2: Sample selection

Island Group	# of youth 15-24 years (2006)	Desired sample (20%)	Assuming 15% decline to participate	Final sample interviewed
Rarotonga	1,669	334	393	451
Southern group	602	120	142	186
Northern group	235	47	55	37
Cook Islands total	2,506	501	590	674

Inclusion criteria

A total of 674 resident youth, who were aged between 15-24 were interviewed. Each participant could only participate once in the study.

Survey administration

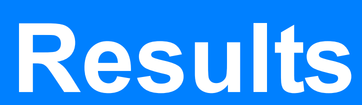
Six surveyors recruited youth and had the survey questionnaire pre-programmed into a galaxy tablet. The surveyor explained the survey to each participant.
There were 13 participants that declined to participate. Participants that accepted to partake in the survey then went to a private place and completed the questionnaire on a Samsung Galaxy tablet 2 10.1. Surveyors were present in a nearby location if clarifications were required. The survey took approximately 30 - 40 minutes to complete, however some took over an hour as some participants required clarifications and help with using the tablets. This occurred more frequently in the northern island participants where there are lower literacy levels and English is a second language. At the conclusion of the interview each participant was offered health information, condoms and referral forms if they wanted to seek counselling for domestic violence or other health services.

Data management

The questionnaires were programmed into a galaxy tablet. After completion of approximately 100 interviews the data was downloaded onto a desktop computer and stored in a secure encrypted folder. The full dataset was then merged, exported and analyzed using Epi Info 3.5.4.

Study limitations and lessons learnt

There were lower literacy levels in participants from the northern islands and some questions may not have been fully understood. Keeping the questions as clear as possible would help. The time taken to complete and the novelty of the tablet may have jeopardized some confidentiality in some settings, as other youth would try to peek in to see what was going on, especially in hostels and group settings. Only one interview could be conducted at a time and some willing participants did not wait around. Initially interviewers were going from house to house to administer the survey using the tablets. However in some instances this was seen as an invitation for sex and potentially placed the interviewers at risk. The interviewers adapted their approach and conducted the interviews at youth gathering locations but with a private area where the participants could confidentially complete the questionnaire. Selection bias may have occurred as the majority of participants were selected for areas where youth gather. Marginalised youth (Rarotonga only) may not necessarily gather at these venues.
When a new technology is utilised it is important to pilot and fine tune the process to prevent any problems during actual implementation. Duplicate records were created by the software which resulted in time being taken during analysis to eliminate duplicate records.


Results

Results

- 687 participants were interviewed and 13 declined to complete the survey leaving a total of 674 who completed the survey. 300 (44%) were male and 374 (56%) female
- The median age was 18 years with an IQR of 16 to 21, and was the same across genders.
- 574 (85%) of the participants were Polynesian. 332 (49%) were born on Rarotonga followed by 81 (12%) born in New Zealand and 80 (12%) born in Aitutaki (Table 3).
- 320 (48%) were part of the Cook island Christian church followed by 133 (20%) who were Catholic and 77 (11%) who were part of the Seventh day Adventist church.

3.1 Demographics

Table 3: Reported demographic characteristics

Variable	Values	Number	Percent
Place of birth	Palmerston	1	0.1%
	Rakahanga	3	0.4%
	Mitiaro	9	1.3%
	Penryhn	16	2.4%
	Pukapuka	16	2.4%
	Manihiki	17	2.5%
	Mauke	20	3.0%
	Mangaia	26	3.9%
	Other country	28	4%
	Atiu	45	6.7%
	Aitutaki	80	12%
	New Zealand	81	12%
	Rarotonga	332	49%
Ethnic group	Melanesian	2	0.3%
	Micronesian	3	0.4%
	Caucasian	6	0.9%
	Mixed Ethnicity	32	4.7%
	Other	57	8.4%
	Polynesian	574	85.2%

Table 4: Reported socio-demographic characteristics

Variable	Values	Number	Percent
Education among those >18	Never attended school	5	2%
	No answer / refused	2	1%
	Some primary school	1	0%
	Completed primary school	9	3%
	Some secondary school	106	35%
	Completed secondary school	150	49%
	Completed higher (university, tertiary)	34	11%
	Total	307	100%
Occupation	Missing	3	0.4%
	Transport worker (e.g. driver)	5	0.7%
	Professional (e.g. Dr, Lawyer)	7	1.0%
	Police/ Military/ Security	8	1.2%
	Fisherman / Seafarer	10	1.5%
	Tourism	10	1.5%
	Farmer	15	2.2%
	Home Duties	20	3.0%
	Not employed	20	3.0%
	Clerical/ Office work	24	3.6%
	Construction/ Labourer	32	4.7%
	Retail/ Sales work	40	5.9%
	Other	57	8.5%
	Hospitality	68	10.1%
	Student	355	52.7%

- 643 (95%) of the participants had completed primary school. Among participants that were older than 18 there were 184 (60%) who had completed high school (Table 4).
- A majority of the participants were still students (355, 53%) and among those employed the most common employment was in the hospitality industry (68, 10%) (Table 4).

Table 5: Living arrangements

Variable	Values	Number	Percent
Current living arrangements	Missing	2	0.3%
	Living Alone	18	2.7%
	Living with spouse / friends	91	14%
	Living with Relatives	168	25%
	Living with Parents	395	59%

- Most youth live either with their parents (59%) or with relatives (25%) (Table 5).

3.1 Sexual knowledge acquisition

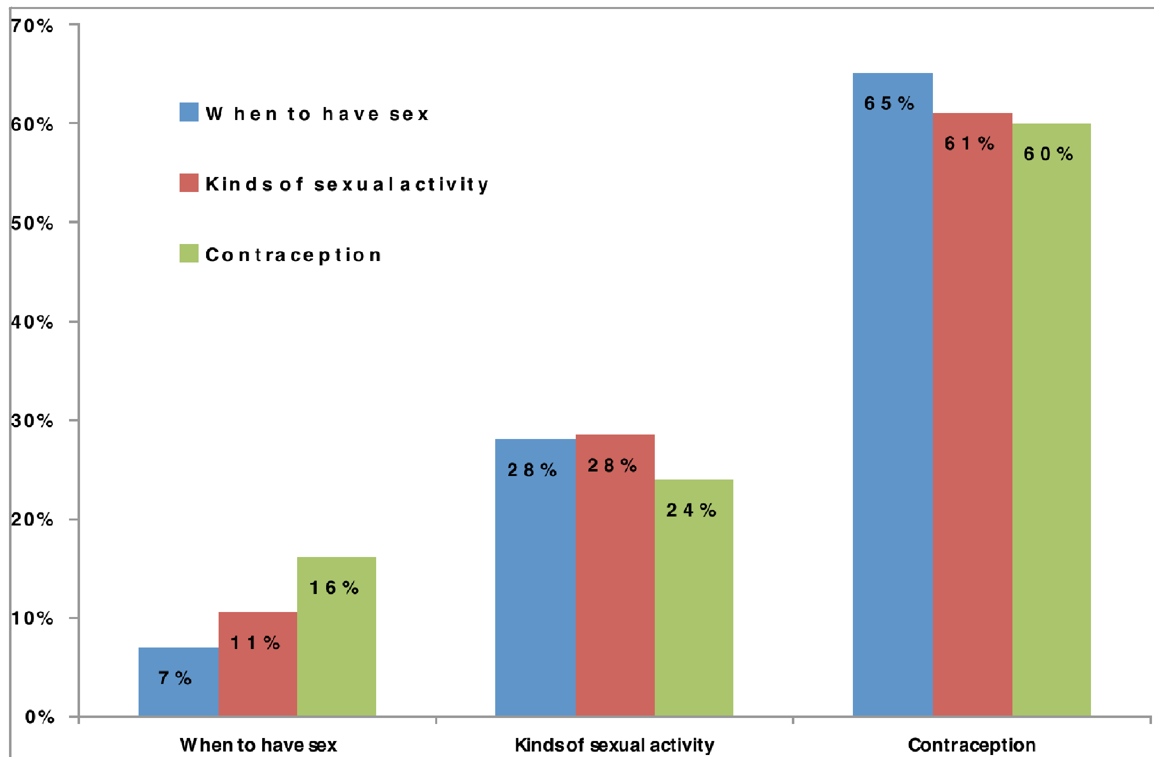
Table 6: Sexual knowledge acquisition

	Number	Percent
Have been sexually active	518	(77)
Most useful source of sexual education		
Romantic novels	182	27%
Parents	227	34%
Magazines	249	37%
The internet	272	41%
Pornographic magazines, movies	303	45%
Educational books about sex	304	45%
Youth peer educators	341	51%
TV, Movies, Music videos	378	56%
Parties	378	56%
Other family members	381	57%
School sex education	385	57%
Lovers	471	70%
Able to control the level and kinds of sexual activity	447	66%

What you have control over	No control	Some	Lots
Kinds of sexual activity	47 (11%)	127 (28%)	273 (61%)
Contraception	72 (16%)	107 (24%)	268 (60%)
When to have sex	31 (7%)	125 (28%)	291 (65%)

- 518 (77%) of participants indicated they had been sexually active. Note that a broad definition was used and it included participating in petting (hugging, kissing, touching), having oral sex or sexual intercourse with someone.
- Participants acquired knowledge about sex through a variety of sources. The most useful sources reported being via lovers followed by a school sex education, family members, parties and TV (Table 6).
- 447 (66%) of participants reported that they felt able to control the level and kinds of sexual activity they had. Those who reported they had control were then asked to clarify what they had control over. Of these 72 (16%) felt that they had no control over contraception use (Figure 3).

Figure 3: Participants ability to control the level and kinds of sexual activity



(A surveyor introduces the SGS survey to a potential participant)

3.2 Sexual behaviours

Table 7: Reported sexual history	Number	Percent
Ever heard of a male condom	636	(94)
Ever heard of a female condom	566	(84)
Used condom at first sexual encounter	260	(42)
Used a male condom	250	(40)
Used a female condom	10	(2)
Paid for sex in the last 12 months	17	(3)
Median number of paid sex partners	3	IQR (1.5, 5.5)
Gave goods or favours for sex in the last 12 months	48	(8)
Median number of sex partners for favours	2	IQR (1, 5)
--		
Received cash or goods for sex in the last 12 months	64	(10)
Received cash in exchange for sex in the last 12 months	33	(5.3)
Median number of paid sex partners	2	IQR (2, 9)
Used a condom during last paid sex	17	(52)
Received goods/favours for sex in the last 12 months	48	(8)
Median number of sex partners for favours	2	IQR (1, 5)
--		
Multiple (>=2) sexual relationships within same time period	133	(20)
--		
Has been off-island in the last 12 months	366	(59)
sex with non-partner off-island	96	(16)
--		
Ever been forced to have sex	145	(23)
Forced to have sex in the last 6 months	75	(12)
Median age at first forced sex	16	IQR (14, 17)
Approximate median age of perpetrator	19	IQR (17, 23)
Relationship of perpetrator		
Parent	3	(2)
Neighbour	4	(3)
Work Colleague	6	(4)
Relative	8	(6)
Family friend	23	(16)
Stranger	29	(20)
Partner	44	(30)
Location where sex took place		
Neighbours place	5	(3)
Relatives home	13	(9)
At home	28	(19)
Other	40	(28)
At a party	59	(41)
Touched male penis or vice versa for sexual pleasure	40/357	(11)
Anal sex	20	(6)
Median male partners in last 12 months	4	IQR(1.5, 15)
Condom use ever during anal sex	16	(80)
Condom use during last anal sex	13	(65)

- 619 (92%) of the participants had at least one sexual encounter based on the age of sexual debut. The median age at first sex was 15 with an IQR of 13 to 16. Median sexual debut for males was 14 (12, 15) while for females it was one year later at 15 (13, 17). Age at first sex ranged from 5 years to 22 years. 40% of youth (271/674) had sexual intercourse before the age of 15.

- Among those who reported having sex the median number of different sex partners in the last 12 months was 2 with an IQR of 1 to 4. This varied significantly by reported sexual classification with a median of 7.5 among lesbians, 6 among homosexuals, 3 among akavaine to a low of 1 among heterosexuals.

- 260 (42%) reported condom use at their first sexual encounter.

- Of those that had multiple sex partners 15% used a condom every time during sex.

- Commercial sex was low with 51 (8%) participants having paid for or provided goods to someone in order to have sex, while 64 (10%) of participants received cash or goods from someone in exchange for sex.

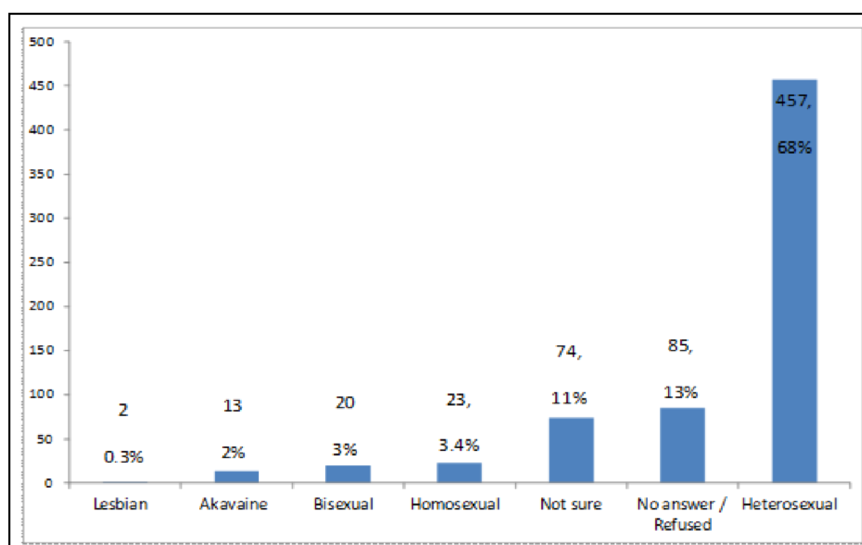
- 145 participants (23%) had been forced to have sex. 90 were females and 55 were males. The median age when this occurred was 16 with and IQR of 14 to 17.

- Approximately half (59%) of participants had travelled out of Cook Islands in the last 1 year and of those 96 (16%) had sex with a non regular partner while off island.

- Almost a quarter of the participants (23%) reported having being forced to have sex. 72 (12%) reported having being forced to have sex in the past 6 months (Table 7).

- 80% of forced sex was by someone close to the person. In 72 cases (50%) it was by either, a family friend, relative, work colleague, neighbour or a parent). For 44 cases (30%) it was by a partner. For the remaining 29 cases (20%) it was by a stranger.

Figure 4: Self identified sexual orientation



- There were 300 males. However, there were 357 participants that were either male or identified themselves as Akavaine (transgender), Homosexual or were unsure. 20 (6%) of these reported having had anal sex with another male. 65% (13) of these reported condom use at their last anal sexual encounter.

3.3 Reported historical sexually transmitted infections

Table 8: Reported sexually transmitted infections

	Number	Percent
Ever been diagnosed with an STI	90	(13)
Symptoms in the last 1 month	115	(17)
Lower abdominal pain	31	(5)
Unusual genital or anal discharge	40	(6)
Rash, ulcer or sore around your genitals	44	(6)
Sought treatment	37	(31)
If worried about an STI where would you go for help		
Religious healer	5	1%
Would not get help	8	1%
Other	19	3%
Traditional healer	24	4%
Friends	53	8%
Health clinic	535	79%
Reasons for not seeking help at a health clinic		
Too expensive	5	4%
Too busy	7	5%
No answer/ refused	12	9%
Other	12	9%
Don't know	19	14%
Too public	27	20%
Too scared/ embarrassed	54	40%

- 90 (13%) of the participants recalled having ever been diagnosed with an STI (Table 8).
- 115 (17%) had symptoms of an STI in the last one month and 37 (31%) of these participants sought treatment.
- 535 (79%) would seek help at a health clinic if they were worried about an STI, however 109 (16%) would seek help from a variety of other locations.
- For those who would not see help at a health clinic 71 (60%) gave reasons related to confidentiality/embarrassment

(Condoms easily accessible through strategically placed condom dispensers)

3.4 Substance abuse

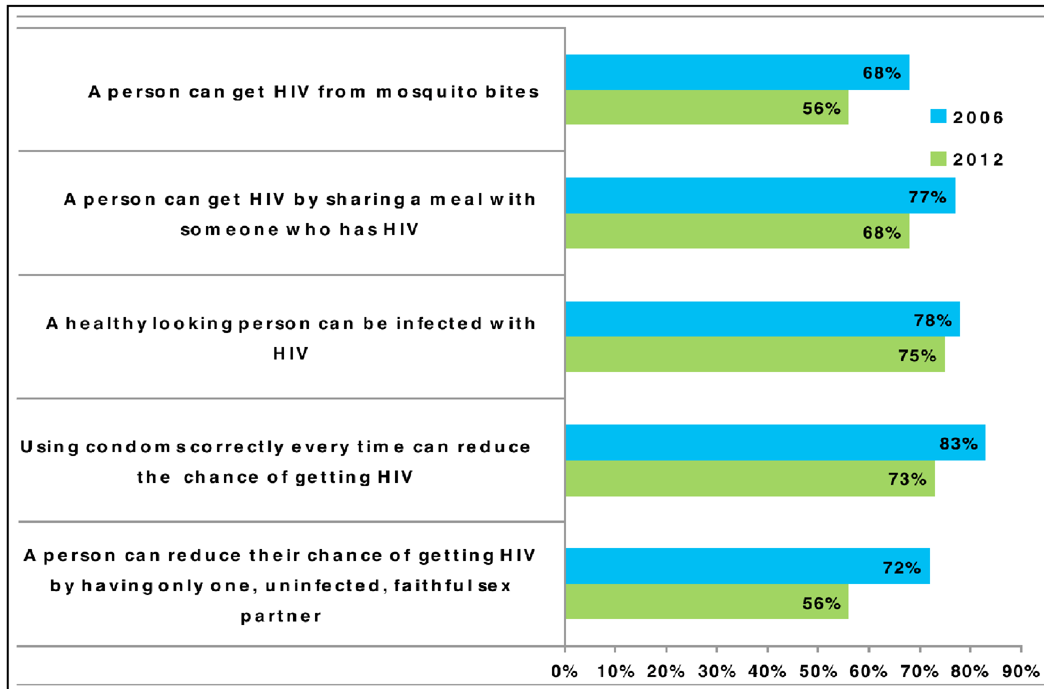
Table 9: Alcohol and drug use

	Number	Percentage
Frequency of alcohol use in last 12 months		
Never	170	(25)
Special occasions	123	(18)
Monthly or less	46	(7)
2 to 4 times a month	60	(9)
2 to 3 times a week	155	(23)
4 or more times a week	73	(11)
Don't Know	34	(5)
No answer/refuse	13	(1)
Number of standard drinks usually consumed		
1 to 2	81	(17)
3 to 4	73	(15)
5 to 9	144	(29)
10 or more	186	(38)
No answer/missing	7	(1)
Able to enjoy parties/events when alcohol is not served	453	(67)
Ever tried		
Sniffing (butane/ gasoline/ kerosene/ glue)	15	(2)
Marijuana	41	(6)
Mushrooms	44	(7)
Kava	45	(7)
Amphetamines/ Ecstasy	71	(11)
Tobacco	410	(61)
None of the above	258	(38)
Injecting drug use in the last 12 months	19	(3)
Heroin	5	
Coke	3	
Other	5	
Had sex at last injecting drug use	7	(36)

- 491 (73%) of all participants drank alcohol in the past 12 months, while among those under 18 years old 177 (61%) drank alcohol in the past 12 months.
- The frequency of alcohol use among those that did use alcohol was relatively high, and units consumed were high with a median consumption of 7.5 drinks at a time.
- 410 (61%) participants had tried tobacco, followed by 71 (11%) trying ecstasy (Table 9).
- Low injection drug use was reported among 19 participants, 7 (36%) of them had sex at the last injection drug use and 2 of the 7 did not use a condom.13 of these participants had been off island in the last 12 months.

3.5 HIV prevention knowledge

Figure 5: HIV prevention knowledge in 2006 and 2012



- A majority (84%) of the participants had heard of HIV or AIDS. Comprehensive prevention knowledge as measured by the GAPR indicator (GAPR, 2012) (correct identification of all 5 ways of preventing the sexual transmission of HIV and rejection of common misconceptions about HIV transmission) was relatively low at 25% (167/674). However individual correct responses (Figure 5) to components of this were higher and were primarily pulled down by 2 variables (not knowing that a person can reduce their chances of getting HIV by having only one, uninfected, faithful sex partner and thinking that HIV can be transmitted via mosquitoes).

- Low knowledge on the former is worrying, especially given that participants reported having a median number of two different sexual partners in the last 12 months (Table 10).

Table 10: Prevention knowledge and rejects major misconceptions about HIV transmission

Correct knowledge of prevention strategies	*Number*	*%*
A person can reduce their chance of getting HIV by having only one, uninfected, faithful sex partner	376	(56)
Using condoms correctly every time can reduce the chance of getting HIV	495	(73)
Knowledge questions		
A pregnant woman who has HIV or AIDS can pass HIV on to her unborn baby	521	(77)
Correctly rejects common misconceptions		
A healthy looking person can be infected with HIV	506	(75)
A person can get HIV by sharing a meal with someone who has HIV	458	(68)
A person can get HIV from mosquito bites	380	(56)

3.6 Attitudes towards Those Living with HIV

Table 11: Participants attitudes towards those living with HIV

Agreed with Statement	*Number*	%
If I knew a shopkeeper of food seller had HIV, I would still buy food from them	359	(53)
If a relative of your family became ill with HIV, I would be willing to care for them in my household	515	(76)
If a member of my family became ill with HIV, I would want it to remain a secret	343	(51)
If a teacher has HIV and is not sick should they be allowed to continue teaching	281	(42)
A person should be able to keep their HIV status private	380	(57)

3.7 HIV awareness campaigns and media

Table 1: Participants reached through various awareness campaigns and media

Read leaflets or pamphlets about HIV /STI	63	(19)
Received HIV information from outreach workers	79	(40)
Read messages about HIV /STI in newspapers	94	(56)
Heard messages about HIV / STIs on the radio	102	(78)
Seen messages about HIV / STIs on TV	128	(86)
Seen messages about HIV/ STI on billboards	140	(87)

- Billboards, TV and radio were the top three reported methods for reaching the population with messages on HIV/STIs. (Table 12)

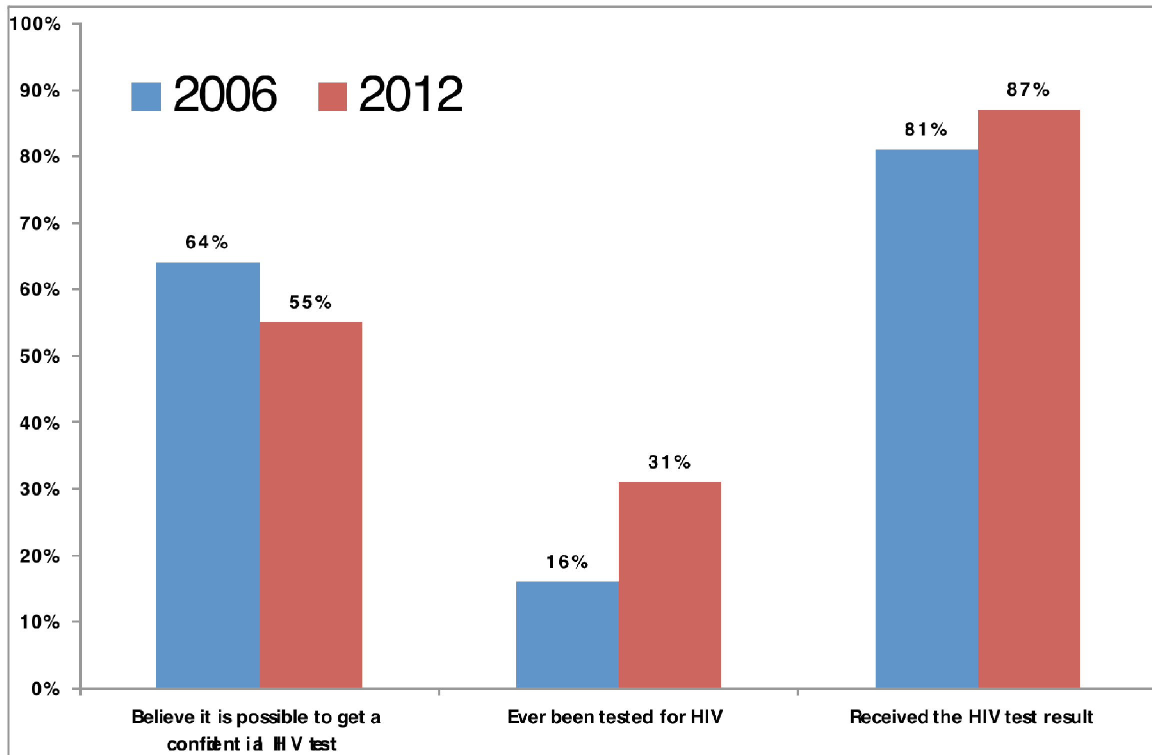
3.8 Access to HIV/STI testing and health services

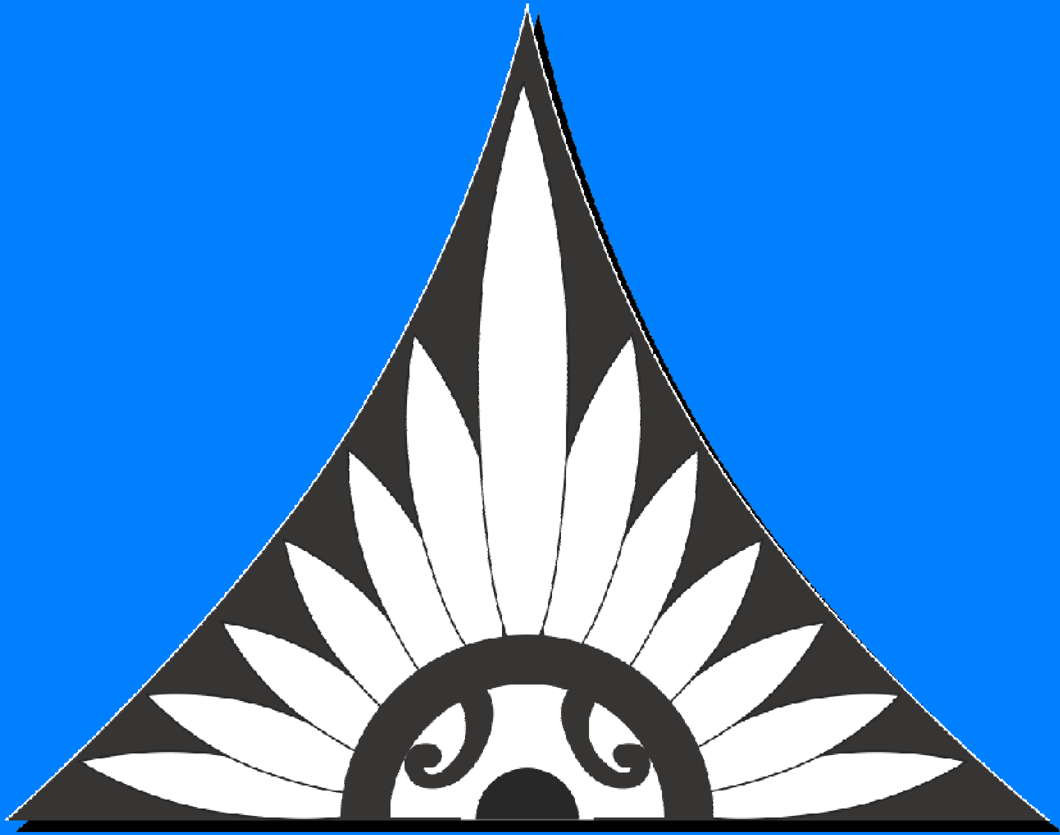
Table 13: Reported access to testing and health services

	Number	Percentage
Believe it is possible for someone in the community to get a confidential test	368	(55)
Testing site is too difficult to get to	*2*	*1%*
Opening hours are not convenient	*5*	*2%*
HIV testing is not available	*32*	*11%*
Testing site is too public	*34*	*11%*
Other	*35*	*12%*
No answer/ refused	*71*	*24%*
Everyone will find out	*121*	*40%*
Have ever had a test for HIV or for an STI	208	(31)
No answer/ refused	2	1%
Don't know	16	8%
In the last three months	66	32%
In the last year	79	38%
Over a year ago	45	22%
Received results of last test	181	87%
Location of test		
Other	12	5%
Non government/ private health centre	13	6%
Community clinic or program	21	10%
Overseas	28	14%
Ministry of health centre	134	64%
Reason for test		
Work permit or scholarship requirement	6	3%
No answer / refused	11	5%
Routine Antenatal screening	14	7%
Blood donor	23	11%
I asked for it	77	37%
Medical Check	77	37%

- Approximately half of the participants (55%) reported that it was possible to get a confidential HIV test.
- A relatively low proportion of participants 208 (31%) had ever been tested at some point in their life. Of these the majority 145 (70%) had been tested within the last year.
- A high proportion 181 (87%) of those tested had received their results.
- It was encouraging to observe an increase in the proportion of participants that had received an STI/HIV test up to 31% in 2012 compared to 16% in 2006. It was also encouraging to observe that 87% of those that tested received their results. (Figure 6)

Figure 6: HIV testing in 2006 and 2012





Discussion

Discussion

This behavioural survey among youth provides important information for the future strategic direction of HIV/STI programmes in the Cook Islands.

Demographics:

The Cook Islands offers free primary and secondary education. 95% (643) participants had completed primary school. Among participants that were older than 18 there were 184 (60%) who had completed high school or more (Table 4). This was lower than expected especially given the fact that secondary school education is free.

Sexual knowledge acquisition

Participants acquired knowledge about sex through a variety of sources. The most useful sources reported being via lovers followed by a school sex education, family members, parties, TV and peer educators (Table 6).There are opportunities to increase knowledge related to HIV and STI transmission and prevention and voluntary testing among the youth. One approach could be the strengthening of sex education in school so that youth receive reliable information and can then make appropriate informed decisions. Another approach could be to strengthen information dissemination through youth peer educators as youth are likely to be more receptive to learning from a peer.

Closely linked to sexual education as well as personal empowerment was a question on whether participants felt they were able to control the level and kinds of sexual activity. It was encouraging to see that 66% indicated they did have control. When this was broken down, areas that may require strengthening are:

- Contraception: Where 40% indicated they had some to no control over this.
- The kinds of sexual activity: 39% had some to no control over this.
- When to have sex: 35% had some to no control over this (Figure 3).

Sexual behaviours

The results of the survey indicate several risky sexual behaviours amongst youth as indicated by early age of sexual debut, low condom use, multiple concurrent sex partners within the same time period, and a relatively high occurrence of forced sex. These behaviours place youth at high risk of contracting an STI.

77% (518) participants indicated they had been sexually active. Note that a broad definition was used and it included participating in petting (hugging, kissing, touching), having oral sex or sexual intercourse with someone. When comparing this to the variable that later asked the age at first sex there was a discrepancy. 92% (619) participants later indicated that they had had a sexual encounter based on age at first sex. A lesson learnt from this would be to explicitly ask participants if they had ever had sex and then limit future responses to that subset. Based on this we estimate that the true value of participants that had a sexually encounter may be somewhere in-between the 2 values. 72% of participants from the 2006 youth survey indicated that they had at least one sexual encounter.

Similar to the 2006 survey, in 2012 the median age at first sex was 15. Sexual debut for males was 14 years and one year later for females. Age at first sex ranged from 5 years to 22 years. It will be important to investigate more into cases where sex is occurring prior to the age of consent, in particular the younger age groups. Closely related to this was the finding that almost a quarter of the participants (145) reported having ever had forced sex, (similar to the 2006 youth survey and MSM survey) and 12% (75) reported forced sex in the last 6 months. 80% of forced sex was by someone close to the person. In 72 cases (50%) of it was by either, a family friend, a relative, a work colleague, a neighbour or a parent). For 44 cases (30%) it was by a partner. For the remaining 29 cases (20%) it was by a stranger.

Consistent condom use is an important strategy for protection against HIV/STIs, and unplanned pregnancies. The survey showed that 42% of the youth did not use a condom at their first sexual encounter. This may help explain the number of unplanned pregnancies. The 2006 ANC survey indicated that only one third of pregnancies were planned and that nearly half of the women aged 25 to 44 years were pregnant for at least the fourth time. It highlights the importance of educating youth on condom use as well as sexual and reproductive health.

Transactional sex is generally regarded as a higher risk activity especially when condoms are not consistently used. 51 youth (8%) had paid for sex or provided goods for sex in the

last 12 months, while 61 (10%) of the youth had received cash or goods for sex in the last 12 months. Approximately half had used a condom at the last transactional sex.

Reported historical sexually transmitted infections

A relatively low percentage of participants (13%) had ever been diagnosed with an STI, while 17% indicated they had symptoms of an STI in the last 1 month. It was encouraging to hear that a majority (79%) would seek help at a health clinic if they were worried about an STI (Table 8). In the context of low condom use and circulating asymptomatic STIs it will be important to educate the youth about risk behaviours that increase their probability of contracting an STI and the health risks associated with these STIs. The findings may also highlight the impact of the ongoing STI promotion and prevention campaigns that encourage sexually active people to seek medical assistance if symptoms are apparent.

Substance abuse

In 2012 three in four youth had used alcohol in the last 12 months and among those that drank the median units consumed was high at 7.5 units at a time. What was worrying was that even among those under 18 years 61% (177/289) of them had drank alcohol in the past 12 months. While illicit drug use was low, it was worrying to see that 19 youth had used injecting drugs in the last 12 months and 7 of those had sex during their last injection drug use of which 2 did not use a condom. IDU is a known high risk factor for HIV transmission.

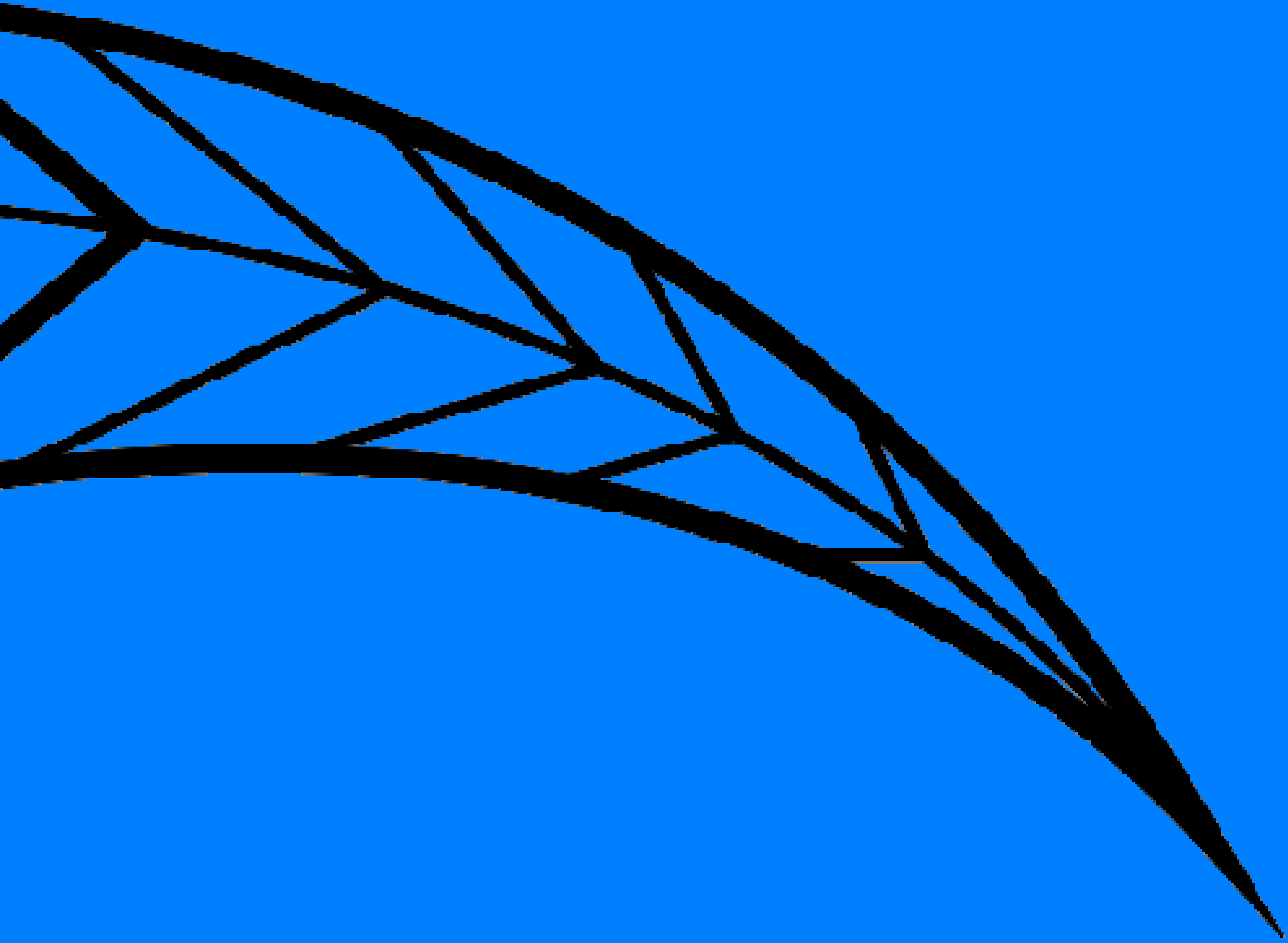
Survey strengths that should be noted:

Cook Islands has lead the way in terms of their ability to adapt and use cutting edge technology through the use of handheld tablets to conduct interviews in a confidential fashion and also improve efficiency and reduce data entry errors in the process by eliminating the need to collect data on paper forms and then type the information in retrospectively. Other countries are encouraged to learn from their experience using this approach.

The time taken between survey start and production of the final report was impressive and helped minimize the risk of recall bias as to what was actually done as well as enables the rapid production of evidence so that appropriate interventions can be put in place.
The sample was a good representation of the youth population not just in Rarotonga but across the various islands In the Cooks. On several of the outer islands such as Atiu and Mauke all youth were surveyed. On Rarotonga there was a small possibility that marginalised youth were missed out as they were hard to reach and do not necessarily

converge at popular youth gathering locations. Their sexual characteristics may differ from the findings of this survey.

It was encouraging to observe and increase in the proportion of participants that had received a test for STI or HIV up to 31% in 2012 compared to 16% in 2006. It was also encouraging to observe that 87% of those that tested received their results. Cook Islands now has the capacity to conduct in country screening and confirmatory HIV testing. We may expect to see more youth tested for HIV and STIs in the first half of 2013 as the cost for the HIV test and the test for Chlamydia are covered by the global fund, however in later years we expect to see a decrease in the number of youth tested for Chlamydia when funding for these tests are no longer covered.



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