Evaluation of the NSW Aboriginal Sexual and Reproductive Health Program

April 2015

Prepared for NSW Ministry of Health by

The Aboriginal and Torres Strait Islander Health Program, Kirby Institute

In collaboration with

Aboriginal Health and Medical Research Council of New South Wales

Family Planning NSW

Seven Aboriginal Community Controlled Health Services located throughout NSW

Aboriginal Sexual and Reproductive Health workers involved in the Aboriginal Sexual and Reproductive Health Program

The state-wide Aboriginal Sexual health and hepatitis network coordinator

Acknowledgements

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Acknowledgements

We acknowledge the Aboriginal Sexual and Reproductive Health workers and Aboriginal Community Controlled Health Services involved in the Program for ongoing support for the evaluation including the design of data collection tools, focus testing the questionnaire, contributing clinical data, advising on data quality, providing information for stocktake meetings, presentations at conferences, input into the design, content, interpretation of findings and recommendations in the report; and other support throughout the evaluation project.

We appreciate the input from Dr Deborah Bateson, Director of Clinical Services & Medical Director of Family Planning NSW, for the interpretation of contraception data; and Professor Sarah Larkins from James Cook University for kindly providing a copy of a relevant survey which assisted with the design of the evaluation survey. We also acknowledge the important role of the GOANNA survey, [1] from which a number of questions in the Evaluation survey were drawn.

We also acknowledge the contributions of the following staff from the Kirby Institute, UNSW Australia: Amalie Dyda for her contribution to analyses during the evaluation project, Dr Stephen Anthony for his support with technical issues, including clinical data extraction and validations, and

Andrew Nakhla for his technical and administrative support to the research team. We would also like to thank Dr Dougie Boyle, from University of Melbourne, and his team, for the ongoing support and advice regarding GHRANITE. Finally we thank Victor Tawil, Centre for Population Health, NSW Ministry of Health, for his ongoing support.

Table of Contents

Executive Summary

Background

The NSW Aboriginal Sexual and Reproductive Health (SRH) Program

The NSW Aboriginal Sexual and Reproductive Health (SRH) Program was funded through the National Partnership Agreement (NPA) between the Commonwealth and NSW Ministry of Health (MoH) for Indigenous Early Childhood Development (NPA-IECD). Funding was administered by the NSW MoH and the SRH Program ran from June 2010- June 2014. The program focussed on health promotion and its overall aim was to increase Aboriginal youth's (aged 12-19 years) access to sexual and reproductive health programs. The specific objectives were to increase; sexual and reproductive health literacy, self-reported confidence and intention in discussing sexual and reproductive health issues, access to sexual and reproductive health care, knowledge of pregnancy choices, use of condoms and reduce sexually transmissible infections (STIs).

Aboriginal Sexual and Reproductive health worker (Aboriginal SRH worker) positions were established in seven Aboriginal Community Controlled Health Services (ACCHSs) and one Local Health District (LHD) across NSW. There was an even ratio of male to female workers. These positions engaged with Aboriginal youth through health promotion activities and education sessions that were tailored to each community. Other stakeholders participating in the SRH program included the Aboriginal Health and Medical Research Council (AH&MRC), Family Planning NSW, NSW MoH and the Kirby Institute.

The Aboriginal SRH workers were supported in their roles by the NSW Aboriginal Sexual health and hepatitis network coordinators (NSW Health) and additional positions based at Family Planning NSW and the AH&MRC. Community consultation, evaluation and planning were embedded into the program during development. Regular sharing and coordination meetings for Aboriginal SRH workers and stakeholder partners were held throughout the program. The program included a capacity development component, with training programs for Aboriginal SRH workers delivered by both the AH&MRC's Aboriginal Health College (AHC) and Family Planning NSW separately. Additionally, Aboriginal SRH workers were involved in the dissemination of findings and outputs from the program through oral and poster presentation at several national conferences.

Sexual and reproductive health activities

Health promotion initiatives were led by Aboriginal SRH workers, on the premise that they had access to their communities, and knowledge that would help inform the development of locally appropriate means of implementing health promotion activities. Aboriginal SRH workers delivered SRH education and health promotion activities targeting Aboriginal youth during planned activities, these included: camps, sporting events, SRH workshops (some including parents/carers), SRH training of peers, specific training targeting GPs and other healthcare providers (including those based at ACCHSs), school based programs, programs to reach kids out of school, general health

screening days and opportunities, community events and other campaigns, enhancement of SRH services (for example some Aboriginal SRH workers negotiated with Sexual Health Specialists to provide clinical services directly at the ACCHS), condom distribution (made available at ACCHSs and through social marketing), and various arts-based programs (e.g. state-wide hip hop workshops, dance and logo design competitions). Additionally, some Aboriginal SRH workers were able to provide one-on-one consultations with youth either in the ACCHS or community setting although this was known to be a primary healthcare role. Although the focus of the activities was among 12-19 year olds, most programs included a broader age group (ie included up to age 26yo and older).

Evaluation

An evaluation of the Aboriginal SRH program was conducted by the Kirby Institute in partnership with other significant stakeholders. The purpose of the evaluation was to assess the impact of the program against the SRH programs Key Performance Indicators (KPIs). A research officer was employed by the Kirby Institute from 2012 to 2014 to facilitate this evaluation. The evaluation had four components; 1) a survey of Aboriginal youth aged 16-25 years conducted in 2013/2014. Survey participants were mainly recruited while attending the ACCHS but also during some external programs run by the ACCHSs. Each ACCHS had a target of 50 survey participants which equated to approximately all clients attending the ACCHSs in a month (The GOANNA Report); 2) regular analyses of aggregated clinic data from participating ACCHSs of attendees aged 15-24 years which includes a comparison from before the program commenced (January-June 2010) to after commencement (July-December 2013); 3) information on program activities were gathered at 'stocktake meetings' at the midpoint and end of the program; and 4) 'the most significant change' evaluation process was undertaken by participants at the end of project stocktake (findings not presented in the Executive summary).

Key Findings

The key findings of the evaluation are described below, and more detailed findings are presented in the body of this report.

Program reach

There were at least 67 local projects implemented over the course of the program, and it is estimated that there were 7653 and 4757 local participants during the first and second half of the program respectively. Note that this includes participants of the state-wide SRH campaign and that individuals could participate in more than one activity.

The survey of 248 Aboriginal youth aged 16-25 years old (median age 20 years) who attended the ACCHS or other programs run by the ACCHSs showed 66% of survey respondents participated in at least one SRH activity (70% of 16-19 year olds and 60% 20-25 year olds).

Access to sexual and reproductive health care

Service attendance

The number of Aboriginal youth aged 15-24 years attending the ACCHS for medical consultations increased by 28% from before the program commenced (January-June 2010) to after commencement (July-Dec 2013) (Figure 13). For the 15-19 year old age group, attendance increased by 17% for males and 20% for females during this period, and for 20-24 year olds, there was a 37% and 40% increase for males and females respectively. There were variations in these increases across services (from 5% to 50%). Although the program concluded in June 2014, we chose the previous 6-month period (July-Dec 2013) as the comparison point as a number of Aboriginal SRH worker positions became vacant due to workers' uncertainty of the continuation of their roles after the end of the funding period.

Advice seeking

From the youth survey, a higher proportion (59%) of Aboriginal males who participated in SRH activities in the last year had talked to someone in the last year about prevention/contraception, compared to those who had not participated in an activity (33%) ($p=0.013$). (Note: young people preferred the term "prevention" to "contraception" as revealed by focus testing of the survey). Of both males and females who had spoken to someone about prevention/contraception, a higher proportion had spoken to an ACCHS staff member (doctor, nurse or health worker) (53%) (Figure 5), rather than a family member, or partner, compared to those who had not participated in an activity (19%) ($p>0.001$). Of the staff members, a higher proportion of females (33%, $p<0.001$) and males (18%, $p=0.021$) who had participated in SRH activities had spoken with an AHW than those who had not participated in an activity (Figure 6). Of those survey participants who had spoken to an ACCHS staff (doctor, nurse, AHW) about prevention/contraception, nearly all (female 100%; male 91%) reported that they were satisfied with the talk (Figure 7).

STI testing

Comparing the before and after periods, there was a considerable increase (+66%) in the number of chlamydia tests conducted by participating ACCHSs (Figure 14). The largest increase in number of tests conducted were among 15-19 year old males (+133%), 20-24 year old males (+57%) and 20-24 year old females (+76%). There were variations across services (from -12% to +508%). There was also an increase in the proportion of young people tested for chlamydia (Figure 15), particularly in early 2013 following the first QIP (Quality Improvement Program) feedback sessions at the participating ACCHSs.

Contraception/condom use

Between the before and after periods, there was an increase (+46%) in the number of new contraceptive prescriptions, with a slight decline in the last 6 months (Figure 18). The largest increase in new contraceptive prescriptions was among females aged 16-19 years, of whom 58%

were prescribed long acting reversible contraceptive (LARC) methods. There was a 38% increase in the prescription of LARCs and 51% increase in other contraception types among 16-24 year olds.

From the youth survey, a higher proportion of Aboriginal females who participated in SRH activities reported current use of contraceptive implants (Implanon) compared to those who did not participate in activities (31% vs 6%, p=0.001) and they accessed condoms from health services rather than chemists, supermarkets, shops or service stations ('servos') compared to those that did not participate (68% vs 22%, p<0.001).

Sexual and reproductive health knowledge

Among males who had participated in SRH activities the following differences were observed compared to males who had not participated:

- A higher average score for the recognition of STIs from a list of 7 sexually transmissible infections (STIs) (p=0.045), and a higher recognition of nearly all STIs (Figure 8).
- A higher recognition that a person can have an STI without symptoms (p=0.039) (Figure 9).

Among females who had participated in SRH activities the following differences were observed compared to females who had not participated:

- A higher recognition that youth should have a yearly sexual health check-up (p=0.019) (Figure 10).
- A higher recognition that chlamydia does not only affect females (p=0.023) (Figure 10).
- A higher awareness of LARCs such as intrauterine devices (IUDs) (p=0.028) and implanon (difference was not statistically significant, p=0.057) (Figure 12).
- A higher recognition of contraception options and access, this includes awareness that emergency contraceptive pills are available from a chemist (p=0.002), awareness that the emergency contraceptive pill works up to two days after sex (p=0.001), and awareness that women under 18 do not require parental consent for contraception prescriptions (p=0.002) (Figure 11).

Conclusion

The evaluation showed a large number and variety of health promotion activities took place throughout the Aboriginal SRH program, and these were well attended by Aboriginal youth, with 66% of survey participants reporting they had participated in SRH activities in the previous year. The evaluation suggests there was greater knowledge and awareness of SRH in youth that participated in the SRH program interventions. The SRH program had a positive impact on Aboriginal youth accessing SRH services within program communities, with a 28% increase in attendance at ACCHSs between the before (Jan to Jun 2010) and after (June to Dec 2013) time periods and a corresponding increase in the number of chlamydia tests (66%) and new contraception prescriptions (46%) in the same time period. Also youth who participated in SRH activities were more likely to report they had accessed condoms from an ACCHS; and that they had talked to an ACCHS staff member (doctor,

nurse or health worker) in the last year about prevention/contraception, rather than with a family member, or partner.

The comprehensive planning framework facilitated a strong foundation for the SRH program to engage with ACCHSs. The locally based Aboriginal SRH workers meant that communities had buy-in; the program was embraced by ACCHSs, and enhanced the ability of the ACCHS to take ownership of the Aboriginal SRH program. ACCHSs, largely through Aboriginal SRH workers, demonstrated the ability to effectively implement and sustain health promotion activities in their communities.

Recommendations

1. **The findings from this evaluation suggests that there is a strong justification to support the continuation of a sexual and reproductive health promotion program to address the sexual and reproductive health needs of Aboriginal youth by utilising a community-based health promotion approach, involving ACCHS and a dedicated locally employed Aboriginal SRH worker to implement SRH activities and education.**
    a. This approach has been shown to strengthen local implementation of SRH activities through: use of local knowledge and collaboration with local organisations such as schools and meant that there was local-engagement with Aboriginal youth in the target age group. The results of this approach were an increase in access to health services, including access to SRH care, and improvements in the SRH literacy of Aboriginal youth who participated in SRH activities.
    b. Such programs should be embedded with mechanisms for continuity and sustainability so that the positive effects of the program can be maintained, and the risk of losing the skilled Aboriginal SRH workforce between short funding cycles is minimised.

2. **Future Aboriginal SRH programs should encompass a holistic, clinic-wide approach so that the benefits of health promotion and improved health literacy of Aboriginal youth can be complemented by SRH clinical services. Support for a clinic-wide approach could include:**
    a. Delivery of sexual and reproductive health clinical training and education to a wide range of staff, including clinicians, nurses and Aboriginal health workers
    b. Reproductive health to be integrated into the role of sexual health workers and other services
    c. Explore mechanisms to support all clinic staff (e.g. nurses and Aboriginal Health workers) to have a broader role in sexual and reproductive health, including pathology and prescriptions (may involve partnerships with local pharmacies)
    d. Identifying a practice champion to promote change within the clinic
    e. Increase access to software options which enable prompts and alterations to clinical data systems

3. **Dedicated funding to cover logistical costs for individual ACCHS and Aboriginal SRH workers to develop innovative health promotion activities that attract Aboriginal youth to**

SRH services, particularly male clients that were shown to access the ACCHS and SRH services less often than females.

a. Examples of innovative activities include funding for sponsorship of sports clubs, incentive or prize draw activities, text messaging
b. There should also be continued support for Aboriginal SRH workers to conduct local evaluations of innovative activities to assess their impact (see recommendation 5)

4. **Resources and training materials that were developed as part of this program could be adopted by other ACCHSs, Aboriginal health workers and local organisations, so that the outcomes of this program and its activities may be sustained.**
    a. These resources include those developed by individual Aboriginal SRH workers, ACCHS, and state-wide partner organisations, such as SRH handouts/ tools, campaign materials, examples of effective SRH activities

5. **There should be ongoing support for the monitoring and evaluation of Aboriginal SRH programs and clinical service provision, including local activity evaluations and monitoring of local clinical service delivery; in order to:**
    a. Monitor staff efforts to progress towards Key Performance Indicators
    b. Have on-going SRH quality improvement programs, using ACCHS clinical data, to promote best practice, sustain change and to keep SRH on clinic agendas, and a dedicated role to carry out quality improvement activities
    c. Assess Aboriginal youth's SRH knowledge and behaviour through repeat surveys, similar to the GOANNA survey.

Glossary

ACCHS	Aboriginal Community Controlled Health Services
AHC	Aboriginal Health College (a business arm of the AH&MRC),
AH&MRC	Aboriginal Health and Medical Research Council of NSW
AHW	Aboriginal Health Worker
ASHHAC	NSW Aboriginal STI HIV Hepatitis Advisory Committee
ASRHAC	NSW Aboriginal Sexual & Reproductive Health Advisory Committee
Aboriginal SRH worker	Aboriginal Sexual and Reproductive health workers
BBV	Blood borne virus
CQI	Continuous quality improvement
CPH-HSB	NSW Ministry of Health, Centre for Population Health, HIV/ STI branch
ECP	Emergency contraceptive pill
GRHANITE™	GeneRic Health Network Information Technology for the Enterprise
HPV	Human papilloma virus
HIV	Human immunodeficiency virus
IUDs	Intrauterine contraceptive devices, e.g. copper IUD or Mirena®
KPIs	Key performance indicators
LARC	Long acting reversible contraception
LHD	Local health district
NACCHO	National Aboriginal community controlled health organisation
NPA-IECD	National Partnership Agreement on Indigenous early Childhood Development
NSW	New South Wales
OCP	Oral contraceptive pill, “the pill”

PID	Pelvic inflammatory disease
QIP	Quality improvement program
REACCH project	Research Excellence in Aboriginal Community Controlled health
SHIMMER project	Sexual Health quality improvement project
'SRH activities'	Sexual and reproductive health activities and health promotion, implemented by Aboriginal SRH workers as part of the NSW Aboriginal SRH program
STIs	Sexually transmissible infections
STRIVE project	STI in remote communities: improved and enhanced primary health care

Preface

Aboriginal youth are facing a time of transition in their lives from adolescence to adulthood. Like all young people, young Aboriginal people are faced with many decisions around their sexual behaviour, reproductive health and health seeking behaviour. Culturally appropriate information and support services are necessary to assist young Aboriginal people to make informed choices about their sexual and reproductive health, including pregnancy and safe sex.

The NSW Aboriginal Sexual and Reproductive health program was developed with an aim to increase Aboriginal youths' (12-19 year olds) access to sexual and reproductive health programs. More specific objectives were to increase sexual and reproductive health literacy; increase self-reported confidence and intention in discussing sexual and reproductive health issues; increase access to sexual and reproductive health care; increase knowledge of pregnancy choices; increase use of condoms; and reduce contraction and transmission of sexually transmissible infections (STIs).

This report details an evaluation of the NSW Aboriginal sexual and reproductive health program and has been prepared for the NSW MoH Centre for Population Health-HIV/STI Branch (CPH-HSB) who administered funding for both the program and evaluation. This report will also be made available to participating ACCHSs, and will be accompanied by a shorter community report which outlines the main findings.

Background

Adolescence and young adulthood represent a critical time to focus on a range of health related factors, including sexual and reproductive health, mental health, tobacco and alcohol use, diet and physical activity and injuries. According to the World Health Organization, nearly two thirds of premature deaths and one-third of the total disease burden in adults are associated with conditions or behaviours that began in youth. Promoting healthy practices during adolescence, may ensure longer, more productive lives for many.[2] Among the factors influencing the health of young people, emerging sexual practices and identities are of major importance. Sexuality can be a positive force, enhancing other dimensions of one's life by bringing sexual pleasure, joy, relationship and effective communication.[3] On the other hand, sexual engagement in young people may be linked to a number of outcomes of public health importance, such as sexually transmissible infections and pregnancy, which can have life-long repercussions.

Sexual behaviour and knowledge in young people

The first national survey of sexual health in young Aboriginal people aged 16-25 that took place between 2010 and 2013 (titled: GOANNA- Sexual health and relationships in young Aboriginal and Torres Strait Islander people) identified gaps in the sexual health knowledge and risk behaviours of young Aboriginal people. In the overall sample, one-third of participants aged 16-19 years, and a half of participants aged 20-24 years, reported not using a condom at last sex. NSW-specific data from the GOANNA survey showed that 20% of participants aged 16-25 years reported unprotected sex with casual partners in the last 6-months; young people frequently accessed condoms via supermarkets (46%), chemists (30%) and friends (31%), with half of the NSW participants reporting that they never carried condoms.[4] Other research has shown that condom use varies across communities and age groups, and can be influenced by accessibility,[5-7] knowledge of STI transmission, perceived risk, shame, and confidence and skills in condom use negotiation, [6, 7] or “just not thinking about it.” [7] Also the GOANNA survey found that despite high overall knowledge of sexual health, participants had relatively low knowledge about chlamydia’s negative effect on pregnancy outcomes.[8]

Health promotion has been previously demonstrated to be effective at increasing condom use and reducing other sexual risk behaviours. An extensive review of health promotion programs (none were in Aboriginal communities) demonstrated that 15 of 32 sexual health programs were able to modify sexual behaviours, such as increased use of condoms, compared with a control group. [9] These successful programs identified in the review included: multi-faceted community-wide programs; school-based programs; clinic based counselling; and education. The multifaceted community-wide programs involved workshops and discussions for young people and/or their parents; communication skill-building; presentations at community events; sex education in schools; training for teachers, community leaders, health educators and peer counsellors; distribution of

educational materials; provision of condoms; and mass media campaigns and use of advertisements via billboards, posters, and websites.

Sexually transmissible infections (STIs)

Unprotected sex can lead to sexually transmissible infections (STIs), such as chlamydia, gonorrhoea and human papilloma virus (HPV). STIs are recognised as a key area of Aboriginal health disadvantage, particularly for young people, and are designated priority in national and state STI strategy documents.[10, 11]

Two bacterial STIs of concern are *chlamydia and gonorrhea*. National surveillance data in 2013 show chlamydia and gonorrhoea notification rates among Aboriginal and Torres Strait Islander people (here after referred to as 'Aboriginal') were five times higher for chlamydia and 26 times for gonorrhea compared with non-Aboriginal people. The highest rates were among younger people (15-19 years), females, and Aboriginal people residing in outer regional, remote and very remote locations.[12] However incomplete recording of Aboriginal status for STI notifications conceals the true extent of STIs among Aboriginal people both in NSW and nationally. In NSW, the jurisdiction with the largest number of Aboriginal people, Aboriginal status is incomplete for over 97% of chlamydia notifications. [12]

These bacterial STIs can have significant reproductive health consequences if untreated, including pelvic inflammatory disease (PID), ectopic pregnancy and infertility. Other complications include maternal and neonatal morbidities, such as preterm birth, low birth weight,[13-22] miscarriage,[17, 22] stillbirth,[22, 23] premature rupture of membranes,[13, 22, 24] postpartum endometritis,[22] and ophthalmia neonatorum.[22] STIs can also enhance the transmission and acquisition of Human Immunodeficiency Virus (HIV) between sexual partners [25-27] and may also result in negative psychosocial consequences, such as feelings of discomfort and shame.[6]. A key strategy for control of curable STIs is through regular testing and timely treatment for those with infection, with recommended treatments of genital chlamydia infections (azithromycin or doxycycline) having a demonstrated efficacy of >97%.[28] Particular challenges with this strategy are ensuring that a young people have awareness about STIs and are accessing regular testing, and that clinicians test and manage STIs appropriately, such as offering opportunistic testing. [29] Australian guidelines recommend annual testing for chlamydia, and recent estimates of testing rates among young Aboriginal people aged 16-29 years have shown a low testing coverage. [8, 30]

Human papillomavirus (HPV) infections are the most common STI; with most sexually-active individuals likely to be exposed to HPV infection during their lifetimes. [31] In Australia, cross-sectional surveys conducted in three major cities prior to the roll out of the national HPV vaccination program showed the prevalence of vaccine targeted HPV types (16,18, 6 and 11) in 18-24 year old women was 29%.[32] High-risk HPV types (16 and 18) are the main cause of cervical cancer and can cause other forms of cancer such as penile, anal, vulvar, vaginal and oropharynx. [33] Between 2004

and 2008 the age standardised incidence of cervical cancer per 100, 000 was reported to be 2.6 times higher among Aboriginal women than non-Aboriginal women. [34] Non-oncogenic strains, such as HPV types 6 and 11, are associated with the development of external genital disease, including genital warts. In Australia a national HPV vaccination program has existed in schools since 2007 for females and 2013 for males. The program involves administration of three doses of the quadrivalent vaccine, which has a demonstrated efficacy of 98% to prevent pre-cancer, [35] to 12-13 years olds in schools. A catch up program for those who missed one or more vaccination can be accessed through primary care services. Despite a successful national HPV vaccination program in Australia, the HPV vaccination coverage (3-doses) estimates for 2011 among young Aboriginal adolescents aged 12-17 years as at 2007 in QLD and NT was reported to be lower than the general population, leaving more Aboriginal females at risk of HPV infection and cervical cancer, than non-Indigenous females. [36] No coverage estimates for Aboriginal and non-Aboriginal adolescents were available for NSW.[36]

Teenage pregnancies and use of contraception

In addition to sexually transmissible infections, unprotected sex can also lead to unintended pregnancy. In 2011, the birth rate for Aboriginal adolescent females was 6 times higher than for non-Aboriginal females, with approximately 19% of Aboriginal females who gave birth aged less than 20 years, compared with 3% of non-Aboriginal females. On average, Aboriginal women are generally younger and have more children than non-Aboriginal women. [37] Early childbearing is both a consequence and a cause of social disadvantage[38, 39], with evidence that having a first child in teenage years can impact educational and employment opportunities and lead to reduced incomes. [40, 41] Teenage mothers are also at higher risk of having low self-esteem and depression. [42, 43] However there is little documented about pregnancy choices, beliefs and perceptions of Aboriginal young people, [44] and the available evidence suggests that pregnancy choices differ greatly among individuals and communities.[7, 45] Qualitative research conducted in Queensland with young Aboriginal mothers coming from disadvantaged backgrounds[38] and in a remote community in Northern Territory [44] found that for young Aboriginal women parenthood was not an active choice or traditionally “planned”, but rather a lack of alternative option, and was something that “just happened” to them. [38] Before parenthood these women reported that lives characterised by hopelessness, drifting and unhealthy behaviours[38]. Pregnancy and motherhood marked a positive turning point in their lives when they could take on responsibility, have purpose and direction,[38] become an adult, gain independence, become ‘educated’ in motherhood, and strive to be “good mothers” [44]. Motherhood was also an opportunity to remove themselves from unhelpful relationships, substance issues and obtain stable housing.[38]

Clark and Boyle (2014) suggest that supportive extended family networks and kinship, which are strong characteristics of Aboriginal culture, can have a positive influence for young Aboriginal mothers and assist them with motherhood.[46] However, young Aboriginal mothers still experience challenges, such as stigma, judgement and discrimination from both the community and service

providers, difficulties accessing childcare, housing and education, ongoing relationship difficulties, and poverty.[46] Development of programs that target pregnancy and contraceptive choices need to take into consideration the pregnancy intentions of both the individual and values of their community, with programs including ways for young women to make informed choices and offer a supportive and non-judgemental environment.[7, 45]

Efficacious, safe and affordable contraceptive methods provide the means for women to have choice and plan pregnancies better, and hence it is important that women have access to information about contraception. Oral contraceptive pills (OCPs) rely on consistent and proper use to remain highly efficacious, when used inconsistently efficacy reduces to around 90%.[47] As an alternative contraceptive method, long acting reversible contraceptives (LARCs), such as injections, intrauterine devices (IUDs) and implants, are less dependent on user-adherence, with efficacy remaining high (>99%) over 3 years of use. [48] Among sexually active Australian secondary school students in year 10 and year 12 it has been reported that around 30% use no contraception at all or ineffective methods such as withdrawal. [49] In 2005, over 70% of women in Australia aged 18-44 years reported using a contraceptive method, with 30% using OCPs, 23% using condoms, and a lower proportion using LARC methods, such as 3% using implants (e.g. Implanon) and 2% using injectable contraception (e.g. Depo-Provera). [50] Surveys of 18-19 year old Aboriginal women have shown that use of OCPs are most common among this age group. [50] However the use of contraceptives by Aboriginal women seems to vary depending on geographic remoteness, with women in non-remote areas more likely to use condoms and the contraceptive pill, compared to those in remote areas where the contraceptive injection or implants are more common.[51]

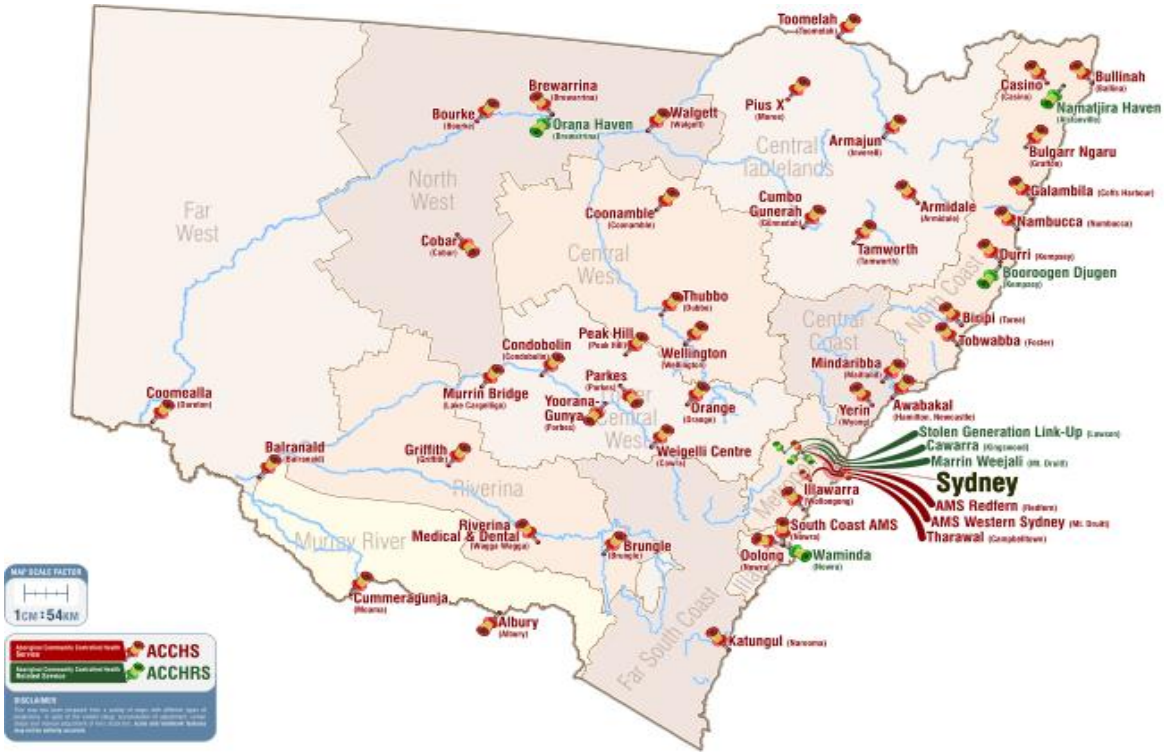
Aboriginal Community Controlled Health Services (ACCHS)

The Aboriginal SRH program was implemented primarily within ACCHS settings. ACCHSs have been playing an important role in health care provision for Aboriginal people since 1971, when the first ACCHS was established in Redfern, Sydney. ACCHSs were established because Aboriginal people faced discrimination when accessing mainstream health services which resulted in Aboriginal people not accessing health services.[52, 53] The establishment of ACCHS meant that Aboriginal people would have access to effective, appropriate, needs-based health care, which incorporated prevention and social justice. The main purpose of ACCHSs is to deliver culturally appropriate primary health care to the Aboriginal community. ACCHSs are located within an Aboriginal community and are initiated, controlled and governed by a Board which is elected by local Aboriginal community members. [54]

In 2011, an estimated 42 ACCHS were in operation in NSW. The map below (Figure 1) shows the locations of ACCHS in NSW.[52] Nationally, ACCHS are the largest single employer of Aboriginal people with more than 60% of staff identifying as Aboriginal. They also provide professional appointments to nearly 300 doctors and nurses, and 700 Aboriginal Health Workers (AHWs). AHWs are usually the first person in the ACCHS clinic to greet and speak to a patient, and AHWs can

provide direct links into the community as they are often from the local Aboriginal community.[55] ACCHSs have an important role in sexual and reproductive health for young Aboriginal people, with half of young Aboriginal people having reported that ACCHSs are their preferred location for STI testing and advice. [1]

Figure 1: Aboriginal Community Controlled Health Services (ACCHS) in New South Wales



Source: Aboriginal Health and Medical Research Council of NSW website (last updated 2010).

Overview of the NSW Aboriginal Sexual and Reproductive Health Program

The NSW Aboriginal Sexual and Reproductive Health Program was a health promotion initiative implemented from June 2010 to June 2014. The aim of the program was to increase Aboriginal youth's (12-19 year old) access to sexual and reproductive health programs. The specific objectives were to increase sexual and reproductive health literacy; self-reported confidence and intention in discussing sexual and reproductive health issues; access to sexual and reproductive health care; knowledge of pregnancy choices; use of condoms and reduce sexually transmissible infections (STIs). Key performance indicators (KPIs) were developed for the program and are shown in Appendix 1.

As part of the Aboriginal SRH program, Aboriginal SRH Worker positions were established and based in seven ACCHSs and one LHD in locations across NSW. The role of the Aboriginal SRH workers was to engage with youth through education sessions and activities that were developed and tailored to each community. The community-based health promotion activities were accompanied by a state-wide SRH campaign run by the Aboriginal Health and Medical Research Council of New South Wales (AH&MRC) called "*It's your choice have a voice- Rights, Respect, Responsibility"*. The Aboriginal SRH workers were supported by state-wide positions based at Family Planning NSW and the AH&MRC.

The program was designed with a strong evaluation framework, to ensure that there was full documentation of both the processes and outcomes of the Aboriginal SRH program. This evaluation was conducted by the Kirby Institute (KI).

ACCHS involved in the Program

A site assessment was conducted by KI with each of the participating ACCHS with a purpose to gain information on the ACCHS location/coverage, clinic size and capacity, including staffing levels, general STI/BBV screening processes, service provision (outreach/ other services), health promotion and other activities. This information was collected through direct contact with ACCHS staff during initial site visits in 2012 or at a later time (May-Nov 2014) via phone calls. Site details have been summarized in Table 1. At the request of the ACCHS, and in accordance with site participation agreements, ACCHS have not been identified.

The seven ACCHSs were located in urban (1), regional (4) and remote (2) locations in NSW. For two of the seven services they were the only health service within the town, and all but one ACCHS offered outreach services. These outreach services included women's health, school based programs, health promotion activities, youth events, disability services, drug and alcohol services, medical services, transport, speech pathology, antenatal classes and social and emotional wellbeing services.

The average number of patients aged 15-24 years old who attended the ACCHS each year during the four year program period ranged from 91 (remote area) to 428 (urban area).

The number of staff varied at each ACCHS, ranging from 8-28 clinical positions, and all ACCHSs had at least one male clinical staff member. ACCHSs had between 2-7 AHWs, and 3 out of 7 ACCHSs had a staff member who was responsible for continuous quality improvement (CQI) activities within the ACCHS, or undertook CQI activities as part of another role.

The vast geographical coverage area and the multitude of services/ outreach within the LHD catchment area meant that a site assessment for the LHD was not conducted.

Table 1: Summary of ACCHS

	ACCHS 1	ACCHS 2	ACCHS 3	ACCHS 4	ACCHS 5	ACCHS 6	ACCHS 7
Regional Location	Urban	Regional	Remote	Remote	Regional	Regional	Regional
Other health services in coverage area	Yes	No	Yes	Yes	Yes	No	Yes
Number of clinical staff (total)	25	15	15	10	28	11	8
% male clinical staff	24%	40%	53%	30%	7%	18%	25%
Number of Aboriginal Health Workers^	21	5	7	3	2	2	3
Average number of young people (15-24 years) seen per year	428	393	91	232	339	267	170
Resourced Continuous Quality Improvement position*	Yes	Yes	Yes	No	No	No	No

Outreach services	Yes	Yes	Yes	Yes	Yes	No	Yes
Type of outreach services	Transport, speech pathology, antenatal, health promotion, healthy lifestyles (golden oldies program, asthma clinics), Social and emotional wellbeing, chronic disease care, clinical outreach, school programs	Women's health events, School events, Sporting events	School programs, women's health, Aboriginal community health	Women's health events, youth events, men's health events	School based programs, disability services		Medical services to outreach towns, Drug and Alcohol health promotion

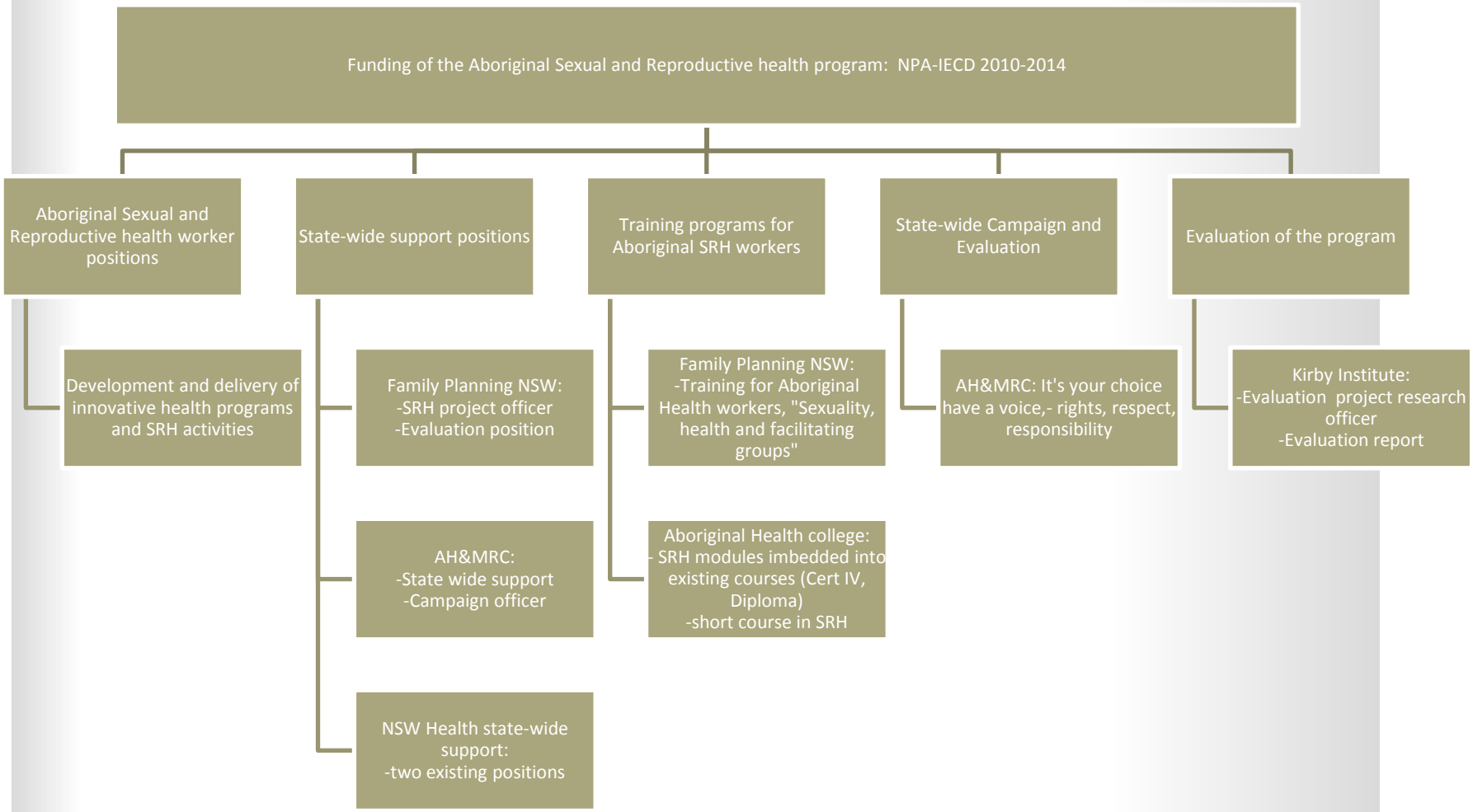
* Designated staff role responsible for Continuous Quality Improvement (CQI) within the ACCHS, or a non-specific staff member undertook CQI as part of their other established role

^ AHWs may have a clinical role in the clinic

Program inputs

An overview of the program inputs are shown in Figure 2, these inputs include funding, workforce, and training. More details of each of the program inputs shown below are described in this section.

Figure 2: Inputs of the Aboriginal SRH Program



Funding

Program funding

The Aboriginal SRH program was funded through the COAG 'Closing the Gap' National Partnership Agreement on Indigenous Early Childhood Development (NPA-IECD), for a period of 4 years (until June 2014). These funds were administered by the NSW MoH, CPH-HSB.

The NPA-IECD provided funding for the Aboriginal SRH worker positions, the state-wide sexual and reproductive health campaign which was developed and delivered by AH&MRC (*It's your choice have a voice- Rights, Respect, Responsibility*), the state-wide support roles at AH&MRC and Family Planning NSW, the development and delivery of a sexual and reproductive health training package for AHWs through the AHC, and the evaluation of the program.

Program positions and support roles

Aboriginal SRH worker positions

Aboriginal SRH Workers were employed at various sites around NSW. From 2010 – 2012, seven Aboriginal SRH workers (six full time equivalent positions) were based in six ACCHSs, and two Aboriginal SRH workers (2 full time equivalent) positions were based in the LHD. The role of the Aboriginal SRH workers was to deliver innovative health promotion programs and activities that targeted Aboriginal adolescents within their communities. These roles were community-based on the premise that they have access to their communities, and local knowledge that will inform the development and communication of locally appropriate health promotion messages. These activities targeted 12 – 19 year olds, but many activities also involved broader age groups. The Aboriginal SRH workers based in the LHD implemented sexual and reproductive health programs within the LHD coverage area. Aboriginal SRH workers used local processes to implement activities, including community consultations, and placed effort on building and maintaining trust and rapport in community networks and partnerships with local organisations.

After two years each ACCHS was required to reflect on the program and resubmit proposals for funding, as a result some of the funding was redirected from the LHD towards an additional ACCHS located in the same coverage area. From 2012 – 2014, eight workers were based in seven ACCHS and one worker was based at a LHD.

State-wide support roles

The AH&MRC and Family Planning NSW each received funding for state-wide support positions. There was one position at AH&MRC and two positions at Family Planning NSW. In addition, existing roles at NSW Health offered support to the program. Details of these roles are outlined below.

AH&MRC Sexual and Reproductive health project officer (State-wide support):
This role coordinated the sexual and reproductive health workers network, provided support to the Aboriginal SRH workers to develop activities, ensured communication between program partners and supported the roll out of the state-wide sexual and reproductive health campaign.

AH&MRC Campaign Coordinator:
This role was responsible for the development and roll out of the AH&MRC's *"It's your choice, have a voice- Rights, Respect, Responsibility"* campaign.

Family Planning NSW Sexual and Reproductive health project officer (State-wide support):
This role developed sustainable links with schools, developed training tools and resources, contributed to the Aboriginal SRH worker coordination, provided community and professional education for ACCHS staff and provided Aboriginal SRH workers support with activities and through network meetings.

Family Planning NSW Evaluation position - (State-wide support):
This role developed tools for planning, documenting, evaluating, and reporting that could be used by Aboriginal SRH workers to evaluate their local activities, and gave guidance to Aboriginal SRH workers to conduct local evaluations of their activities. Additionally, this role was responsible for the evaluation of the Family Planning NSW training activities and the coordination of the mid-term and end of project review (stocktake) (see section: Stocktake and most significant change.)

NSW Health (State-wide support):
Two existing state wide Aboriginal Sexual Health Workforce Development Coordinators, provided input into the implementation of the Aboriginal Sexual & Reproductive Health Program. From 2010 – 2014, the Coordinators provided oversight of the Aboriginal STI HIV and Hepatitis Workers network, Aboriginal Hepatitis C Access Coordinators network and the Aboriginal Sexual & Reproductive Health Workers network.

State-wide SRH campaign: It's your choice have a voice- Rights, Respect, Responsibility

A state-wide sexual and reproductive health campaign was developed and rolled out by the AH&MRC. The AH&MRC contracted the Indigenous Hip Hop Projects to assist in the design and delivery of the *"It's your choice have a voice- Rights, Respect, Responsibility"* campaign.

Training

SRH training- Aboriginal Health College

The AHC, a business arm of the AH&MRC, received funding to create sexual and reproductive health training packages for Aboriginal SRH workers. The package included SRH modules

imbedded into existing courses including: Certificate IV in Aboriginal and/or Torres Strait Islander Primary Health Care (Sexual Health), a Diploma in Aboriginal and/or Torres Strait Islander Primary Health Care (Sexual Health), and the development of an additional short course covering SRH.

Family Planning NSW training

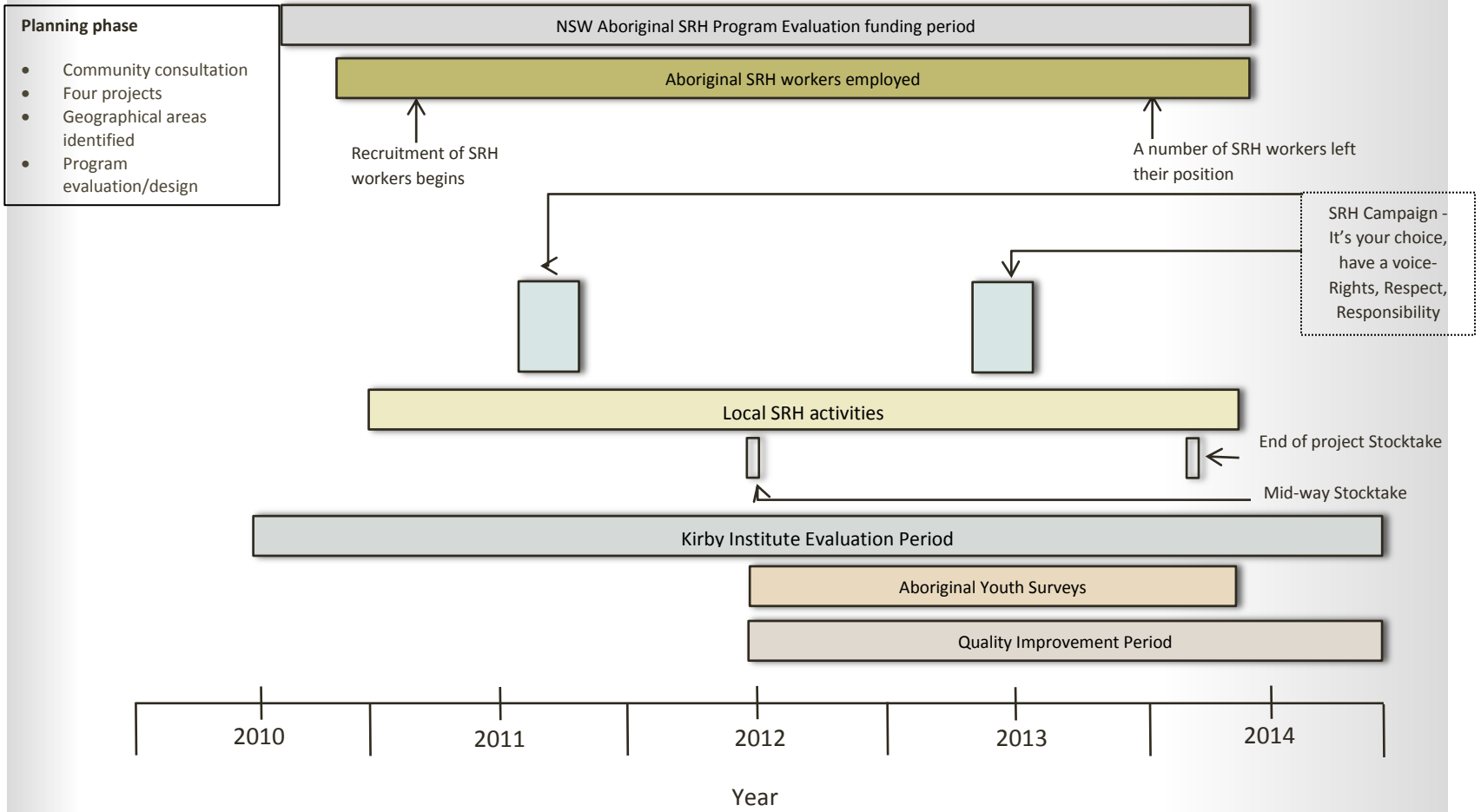
Family Planning NSW developed and implemented a training program for AHWs called 'Sexuality, Health and Facilitating Groups'. The training was funded through the Aboriginal SRH program, via Family Planning NSW support role, with allocation of additional funds for travel and training materials.

Program activities

Timeline

An overview of the timelines of the program and evaluation activities is shown in Figure 3. The SRH activities implemented by Aboriginal SRH workers and ACCHS were ongoing throughout the program, and discreet campaigns occurred at certain time points. More details of the activities shown in this timeline are described in this section and the following Evaluation section.

Figure 3: Timeline of program activities and evaluation activities



Program planning framework

Planning and community consultation was embedded into the initial program development stage. This planning framework facilitated a strong foundation and engagement of communities and ACCHSs. A framework for evaluation of the program was built into the initial program design, with a specific budget allocated for the evaluation.

Development of the Program and Key Performance Indicators (KPIs)

Guided by the NSW Aboriginal STI HIV Hepatitis Advisory Committee (ASHHAC), the NSW MoH CPH-HSB organised four projects that would be used to inform the program design, identify suitable strategies, identify key issues for communities, and prioritise geographical areas. These four projects were:

1. **Review of data on the distribution of pregnancies among Aboriginal young people in NSW** (Undertaken by Dr Teresa Wozniak, Public Health Officer Trainee, NSW Health, on behalf of CPH-HSB).
2. **Identification of good practice examples of sexual and reproductive health services and programs** (Undertaken by CPH-HSB).
3. **Rapid review of national and international evidence of approaches that achieve effective adolescent sexual and reproductive health outcomes, in particular, approaches with Aboriginal communities** (Undertaken by Dr Jan Savage, Consultant, via the Sax Institute, University of Technology, Sydney).
4. **Community consultation with Aboriginal communities on adolescent sexual and reproductive health strategies, services, and programs** (Undertaken by Ms Kerry Arabena and colleagues, for Karabena Consulting).

The findings of these four projects were reviewed by members of NSW Health, the Kirby Institute and AH&MRC. Based on this review draft KPIs and a strategic plan were developed for the program. Stakeholder forums were held with representatives from AH&MRC, NSW Health, LHDs and ACCHSs (including CEOs) within each of the identified geographical regions. During these forums the participating stakeholders endorsed the Program KPIs and strategic plan. These KPIs are detailed in Appendix 1: NSW Health Aboriginal Sexual and Reproductive Health Program- Key Performance Indicators.

There was emphasis placed on locally-based Aboriginal SRH worker positions (these positions are described previously in 'Inputs') to assist in implementing the program, and to target efforts towards meeting the KPIs. The Greater Rivers Alliance, Many Rivers Alliance, and Bila Muuji Alliance were each allocated a number of positions to cover their geographical areas, and these community organisations made decisions about which ACCHS to base the Aboriginal SR worker positions. Each of the identified ACCHS partners submitted proposals for Aboriginal SRH worker positions in April 2010 and funding was approved in May 2010. All Aboriginal SRH worker positions were established by June 2010, and recruited

between August 2010 and February 2011. The NSW MoH placed two Aboriginal SRH worker positions in a LHD, and in July 2012, one position was relocated to an additional ACCHS within the same geographical region (and the LHD retained the other position). This additional ACCHS contributed to the evaluation of the program via survey data.

Governance structure and meetings of the Aboriginal SRH program

The overall Aboriginal SRH program was governed by agreements between each of the partner organisations. Additionally the NSW Aboriginal Sexual & Reproductive Health Advisory Committee (ASRHAC), a sub-committee of the ASHHAC, advised on the program design and implementation. The ASRHAC met quarterly, reported to ASHHAC, and was chaired by one of the Aboriginal Sexual Health and Hepatitis Network Coordinators employed by NSW Health.

The AH&MRC health promotion campaign *"It's your choice, have a voice – Rights, Respect Responsibility"* was governed by a reference group of Aboriginal SRH workers, Aboriginal sexual health workers, other key stakeholders, and was chaired by the AH&MRC.

At two times during the project, in March 2012 and again in February 2014, program stocktake meetings were held. These meetings were coordinated by Family Planning NSW and AH&MRC and were attended by program partners, including Aboriginal SRH workers. At the stocktake meetings feedback and experiences from Aboriginal SRH workers, ACCHSs and program partners were compiled to provide an overview of the NSW Aboriginal SRH program to document the breadth of activities, as well as the successes and challenges.

The group of Aboriginal SRH workers formed a network which had input into resource development and the overall evaluation of the program. This network was coordinated by the AH&MRC. Between 2011 and 2014, this group met at least 2 to 3 times a year, either face to face or via teleconference (meeting dates are listed in Table 2).

An additional Aboriginal Sexual health worker network was coordinated by NSW Health state-wide support roles and met once a year. This network comprised of workers from three different NSW MoH funded programs, including ACCHSs, LHDs and non-government organisations.

Over the life of the project regular phone and email contact with Aboriginal SRH workers was undertaken and support was offered where required regarding roles, programs, resources or information.

Table 2: Dates of key Aboriginal Sexual and Reproductive Health worker meetings

Meeting description	Date held
Aboriginal SRH worker Network Meeting	March 24th and 25th 2011
Resource Advisory Group	December 7th 2011
Resource Advisory Group Teleconference	February 9th 2012
Aboriginal SRH worker Network Meeting and Stocktake	March 7th and 8th 2012
Resource Advisory Group	May 22nd and 23rd 2012
Aboriginal SRH worker Program Meeting	June 6th 2012
Resource Advisory Group	August 31st 2012
Resource Advisory Group	November 1st and 2nd 2012
Aboriginal SRH worker Network Meeting	October 9th and 10th 2013
Aboriginal SRH worker Network Meeting and Stocktake	February 11th and 12th 2014
Aboriginal SRH worker Network Meeting	May 21st and 22nd 2014

Aboriginal Sexual and Reproductive Health Workers

Types of SRH activities

Aboriginal SRH workers were responsible for developing and implementing health programs in their local areas that were in line with initial proposals and based on local needs and demands. Approaches and activities undertaken by the Aboriginal SRH workers are summarised below.

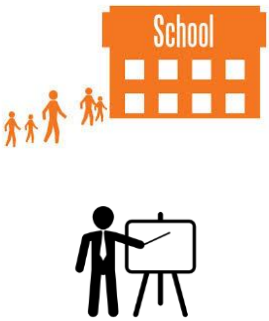
1. Local project establishment, community consultation, partnership and network development

Each Aboriginal SRH worker used local processes to plan for their activities. Some ACCHSs undertook community consultations to gain input, guidance and feedback on community priorities and the appropriate approaches to implement SRH activities. Developing and maintaining community connections and partnerships with local organisations, as well as establishing trust and rapport was a key activity for each of the Aboriginal SRH workers.

2. Youth programs

All Aboriginal SRH workers implemented a variety of local activities to directly reach youth with SRH education. The main types of activities implemented included:

 	***Camps***: Several ACCHSs utilised a camp approach, whereby youth were invited to a program for part of day, full day, or multiple days to get away from daily distractions. During the ***camps,*** SRH education was delivered as a component of other age-appropriate activities, such as ***arts-based,*** holistic, inspirational, engagement and/or culture-based. Some of these camps took place on ***river boats and cruises.***
   	***Sports:*** Engaging with youth through sports was a widely used approach for SRH activities. Sports included ***netball, golf, football (rugby league and Oz tag), and basketball.*** Some Aboriginal SRH workers collaborated with existing sport-based programs, including Midnight Basketball and Oz tag. Interactive sessions involving education, guest speakers, SRH games, meals and distribution of pamphlets and condoms were organized before, after or during sporting events. Some ACCHS provided sponsorship for sports teams, with a requirement of players to have a health check through the ACCHS in order to be eligible to play. Another ACCHS invited stakeholders and guest speakers to a community golf day to develop relationships with youth.
  	***Peer Education:*** Some activities used a peer education approach to reach youth, particularly those not attending school-based activities. One peer education activity involved health service providers training the Aboriginal SRH workers and youth in SRH topics and then providing support for the ***participants to train and teach these topics to others***. The LHD Aboriginal SRH worker, along with staff from local health services, local ACCHSs and other local service providers (such as youth workers and mental health workers), participated in the "Making Proud Choices" program, which involved peer to peer training and aimed to build skills to ***facilitate SRH***

	discussions with young people who are accessing those services. Another ACCHS implemented a peer education program called SHINE which used an arts approach, games and group discussions to engage with young females to learn about SRH health, including healthy relationships and personal wellbeing. Participants were encouraged to have similar discussions with their peers. Following SHINE, the ACCHS developed SHINE FM ('for men') to engage with young males. Project posters, flyers, pamphlets, and bags were developed and distributed to promote this activity.
	***School-based***: Several activities were implemented in ***schools.*** Aboriginal SRH workers were invited by, or approached schools to deliver SRH workshops and education sessions with primary and high school students. The ability to work with schools varied depending on the school's policy and other programs running in the area. Activities in schools were either: one-off, newly developed programs for delivery within small groups; or an integration of SRH education into pre-established programs, for example Core of Life (www.coreoflife.org) which is a government funded education and training program supporting communities with healthier choices and outcomes. The Aboriginal SRH worker was trained as a Core of Life facilitator and was then responsible for workshops on pregnancy choices. Some school based activities involved students developing slogans, logos and resource materials.
	***Out-of-school:*** Some activities were implemented in non-school settings to ensure that higher risk youth, such as those who were no longer in school, were reached by the program. These activities included ***community events and campaign days, camps and ACCHS screening activities***.

Community events and other campaigns: Some SRH activities were linked to existing community events and ***health promotion days***, including NAIDOC week, National Sorry day, Deadly day, National Condom day, World AIDS day, Hepatitis C week, the 'Body Armour' theatre tour, and the 'Love Bites' campaign. During these events condoms and SRH information pamphlets were made accessible for youth.

3. Other Service Providers, Parents/ carers, & GPs

Several Aboriginal SRH workers implemented activities to reach service providers, family members and other community members who work with Aboriginal youth with the goal of improving their knowledge and skills of SRH issues and their confidence in discussing SRH issues with young people. For example, the LHD's 'Making Proud Choices' program involved youth workers, mental health and drug and alcohol workers in training sessions so that they could engage with youth accessing services in their sectors, and the AH&MRC's *"It's your choice have a voice campaign- Rights, Respect, Responsibility"* invited parents and carers to attend the Hip Hop performance workshops. Likewise, the LHD PASH project invited parents/carers to participate in workshops to encourage SRH dialogue with their children.

4. Strengthening and promotion of SRH services

Aboriginal SRH workers also promoted the availability of SRH services within the community. This included promotion of health check screening and programs aiming to increase youth access to health services, for example Pitt Stop (off site), Women's health events (off site), youth health checks (in schools), and primary school health checks (in school). One ACCHS made arrangements with the LHD to have a SRH nurse and SRH worker regularly staff their clinic. This was to assist with building young patients' trust around patient confidentiality by maintaining links between a health promotion activity and clinic activity regarding SRH. At another ACCHS the Aboriginal SRH worker attended outreach clinics on a weekly basis. Some ACCHSs offered a prize draw incentive for youth that participated in a sexual health screening, such as the "P4PS3 (Pee for a PlayStation 3)" and "Wee for a Wii" this played on the notion that a urine specimen is required for screening of some STIs.

5. Condom accessibility

Developing innovative ways to increase condom accessibility was a focus of several activities. One Aboriginal SRH worker organised an art, logo and slogan competition for the purpose of engaging youth in the development of a condom pack. Another Aboriginal SRH worker developed a locally-adapted condom pack to increase acceptability of condoms and to promote the ACCHS. State-wide partners assisted ACCHSs with access to condoms when requested.

6. Workshops

Workshops are short sessions where information is delivered in small group settings. All Aboriginal SRH workers were involved in on-going or one-off workshop delivery to youth audiences. Workshops may have also involved nurses, doctors or other workers from the ACCHS. SRH workshops were delivered alongside other activities, such as sports and camps, or were incorporated to pre-existing programs run by other community organisations or the ACCHS, such as 'Red dust healing', or 'Core of life'.

7. One on one opportunistic interventions

In addition to community campaigns, Aboriginal SRH workers provided one on one SRH education and counselling, both formally (for example within a clinical setting during a health check, contact tracing or client referrals), and informally (for example, opportunistically during conversations with youth outside of the clinic.) One Aboriginal SRH worker ran small workshops and informal discussions with youth during 'Street cruize' at a local café.

Examples of activities:

Midnight basketball

Midnight basketball was offered at one ACCHS four times between 2012 and 2013. The activity ran over an eight week period and one-hundred and eighty youth aged 12-18 years registered to participate. The program ran each week on Friday nights and involved 3 blocks of 40 minute education workshops and six games of basketball, with participants rotating between games and workshops throughout the evening.

The activities and topics covered in the workshops included:

i. Team Building: a Code of Conduct was developed by the youth at the beginning of the workshop. The Code of Conduct was the contract between the players and the workshop facilitators.
ii. Sexual and reproductive health games: SRH topics were discussed in a fun and interactive way, for example STI snakes and ladders which involved youth answering a series of questions regarding STIs and contraceptive choices
iii. Rhythm of life: an interactive and fun way for youth to identify with their life rhythm – this involved youth beating drums to their unique base rhythm. With the drum beat rhythm becoming a tool for youth to stay on track and make healthy choices for a positive life journey.

At the end of the eight week program, participants completed an internal evaluation survey which consisted of questions generated from topics covered in the workshops and their experience of the activity and workshops.

Health check days

Health check days were organised by several ACCHSs to provide comprehensive health assessments to ACCHS clients and other community members. These days were organised in a non-clinical setting at a location away from the ACCHS. Separate events were held for women (aged 15+), Men's Pitstop (aged 15+), youth (aged 7+), and screening events in primary and high school settings. At health check days, clinicans, health workers and allied health professionals, including audiologists, women's health nurses, drug and alcohol workers, smoking cessation workers, family health workers and dentists. These health workers were available to talk with clients about a range of health issues. At events for those aged 15+, sexual and reproductive health was included in the health assessments, and leaflets on STIs, contraception and free condoms made available. During school health check events, Aboriginal SRH workers provided information on sexual and reproductive health in the context of puberty.

Making Proud choices! Program, LHD

'Making Proud Choices' is a safer sex health promotion program targeted at youth that has been shown to reduce risk-associated sexual behaviour and unprotected sex among participants. [56] This program was adapted by the LHD to suit to local community contexts within the LHD.

The program targeted sexually active 16-19 year old Aboriginal youth, and involved a training workshop and activities for both staff and youth. The training was facilitated by nurses and other invited trainers that had experience in sexual and reproductive health. The staff training workshop covered 8 separate one hour modules that cover sexual and reproductive health issues, including pregnancy, STIs, BBVs, condom use, negotiating skills and self-esteem building. The workshop involved Aboriginal workers from a range of health sectors who initially experienced the modules from the perspective of 'young people', and then subsequently took on the role of 'trainers' and facilitating each of the modules. The expectations were that the Aboriginal service providers would then return to their respective health sector and offer the 'Making proud choices' workshops to their young clients. The aim of the workshop was to build skills in teaching and discussing SRH issues with young people. The LHD supported the local service providers to facilitate youth workshops in their sectors.

In addition to the workshops, an interactive arts-based program for youth was developed and *The Last Kinection* was engaged to produce songs, music clips and posters around the Making Proud Choices themes. In total, four songs were produced, and a local Aboriginal language (Gamilaroi) was incorporated into the lyrics. The LHD provided local service providers with 'Making Proud Choices' education kits and contraception kits. Further details of these workshops are available on request from the LHD.

Clinical data and youth surveys were not collected from LHD services which meant that the impact of these Aboriginal SRH program activities and workshops could not be included in this evaluation; however the LHD conducted their own evaluations which are detailed in the Independent evaluations of specific components section of this report.

Parents' Aboriginal Reproductive and sexual health (PASH) project, LHD

The PASH project was developed and implemented by the LHD, with input from the Aboriginal SRH worker that was based there. The project held workshops that were attended by Aboriginal youth and their respective parents/ carers, and aimed to build knowledge and communication skills. Such skills could then lead to confidence in advising their children in making positive decisions about sexual behaviours. PASH was delivered at 5 communities within the LHD and consultation was undertaken with Aboriginal elders and community members to ensure the program was suited to the community needs and was culturally appropriate. A consultant was contracted to deliver the workshops, which included communication and role play activities. The PASH project used branding on t-shirts, drink bottles, wrist bands and posters to promote the project and it's key messages.

State wide SRH campaign: It's your choice have a voice- rights, respect, responsibility

"It's your choice have voice- Rights, Respect, Responsibility" was an arts-based community campaign which aimed to empower and educate Aboriginal adolescents to make informed choices about SRH, and other related alcohol and other drug (AOD) issues. The objectives of the campaign were to:

- Increase age appropriate sexual and reproductive health knowledge of behavioural choices and consequences
- Provide a strengths based sexual and reproductive health campaign to empower and educate Aboriginal adolescents in NSW
- To educate and raise awareness of drug and alcohol issues relating to reproductive health, and the available mental health and drug and alcohol services support services that are available
- Ensure Aboriginal workers and support services are embedded in the delivery of the campaign
- Provide support and education tools to workforce to enable delivery of the campaign[57]

Aboriginal SRH workers and other local workers (for example, Aboriginal AOD workers) assisted in organising the roll out of the campaign locally. To assist with the local implementation, workers received support materials, including checklists, letters to schools, posters and flyers.

"It's your choice have a voice- Rights, Respect, Responsibility" included a 3-day workshop in each community which consisted of hip hop, dance, music, song writing, or salsa workshops,

and concluded with a performance event called “Deadly styles” that was attended by community members. The campaign was promoted through social media, such as Facebook, and the use of branding, slogans, logos and other resources. The campaign primarily targeted Aboriginal young people aged 12-19 years and their parents and carers. Secondary target audiences were Aboriginal community members and services that work with young Aboriginal people, such as schools, youth services, ACCHSs, Aboriginal SRH workers, AOD workers, mothers and babies services, and mental health workers.

The campaign was run in 14 NSW communities, including each of the communities participating in the Aboriginal SRH program. These hip hop workshops were held between August and September 2011, and again between March and May 2013.

Resource development

Several of the ACCHSs developed locally-appropriate resources to distribute as part of their activities. These resources included pamphlets, flyers, posters and condom wallets.

AH&MRC updated an existing youth-focused SRH resource named *'DOIN 'IT' RIGHT!',* which showcased activities, tools and information about working with Aboriginal young people for AHWs and other youth workers. This resource will be made available electronically via the AH&MRC website (http://www.ahmrc.org.au/).

Family Planning NSW developed a series of Aboriginal-specific SRH resources based on existing materials. Each of the participating ACCHSs and LHD received printed resources and further copies are available on the Family Planning NSW website (http://www.fpnsw.org.au).

The resources developed include:

- Yarning About Contraceptive Options: Contraceptive kits
- Yarning About our bodies (flip chart)
- Z-Card STIs
- Z-Card Contraception
- A2 Hey Brother posters
- Black Safe Sex Packs
- Yellow Safe Sex Packs
- Yarning about parenting factsheet
- Yarning about birth flip chart
- Yarning about relationships factsheet
- Yarning about cervical screening brochure
- Yarning about boy's business brochure

Training

Aboriginal Health College

The AHC delivered a range of accredited courses for AHWs and Aboriginal SRH workers during the Aboriginal SRH program. These courses included: Certificate IV in Aboriginal and/or Torres Strait Islander primary health (Sexual health), Diploma of Aboriginal and Torres Strait Islander Primary Health Care (Sexual Health), Certificate III in Aboriginal and Torres Strait Islander Primary Health Care, and Certificate IV in Aboriginal and Torres Strait Islander Primary Health Care (Practice). The AHC also developed a module on sexual and reproductive health, as an added specialty elective available with any of their courses. These courses contribute to qualifications for the Aboriginal SRH workers and directly relate to their roles. Details of these courses can be found on the Aboriginal Health College website: http://www.ahc.edu.au/

Additional training

In addition to the training delivered by the AHC, some of Aboriginal SRH workers were supported by their ACCHS to complete training courses through TAFE.

Based upon locally determined need, a range of other relevant training courses were attended by the Aboriginal SRH workers including: leadership training; First Aid; social marketing; evaluation workshops; and child protection.

Family Planning NSW training

Family Planning NSW 'Sexuality, Health and Facilitating Groups' is a 3-day workshop aimed at increasing the capacity of AHWs and other community workers who are engaged with Aboriginal youth to deliver SRH education to Aboriginal young people. The course focussed on equipping participants with content knowledge on SRH and also with skills in planning and delivering education to young people, in a culturally specific way.

Training for the Most Significant Change evaluation method took place at Family Planning NSW with internal Family Planning NSW staff participating. One Aboriginal SRH worker and the state-wide support worker from AH&MRC also attended this training.

Program stocktake process

The program stocktake was a project review process at the midway and end of the program. This process involved the documentation of ACCHS activities, a face to face meeting with program partners, including Aboriginal SRH workers, ACCHS managers or CEOs, Family Planning NSW, AH&MRC, Kirby Institute, and NSW Ministry of Health. These meetings were used to reflect on and discuss the program achievements, and other issues (see Evaluation methods for further information). Reports documenting these outcomes were compiled for each stocktake.

Quality improvement program (QIP)

The quality improvement program (QIP) uses a continuous quality improvement (CQI) model with each local ACCHS to identify gaps and improve service delivery for STIs and BBVs. QIP involves ongoing consultation with ACCHSs, which promotes local ownership of processes, sustainable systems and improved capacity. The goals of the QIP are to improve testing and management of STIs and BBVs and in turn reduce the morbidities associated with untreated infections.

Intensive sexual health quality improvement programs (QIP) have shown increases to STI and BBV testing and management in several studies coordinated by the Kirby Institute Aboriginal and Torres Strait Islander Health Program, such as Sexual Health Quality improvement (SHIMMER) Project, Research Excellence in Aboriginal Community Controlled

Health (REACCH) Collaboration, and STI in remote communities: improved and enhanced primary health care (STRIVE) project.

Further information on these QIP projects can be found on the Kirby Institute website: http://kirby.unsw.edu.au/research-program/aboriginal-and-torres-strait-islander-health-program/about-program.

For the quality improvement component of this project, data were extracted via GeneRic Health Network Information Technology for the Enterprise™ (GRHANITE) and summarised in reports that were prepared for each participating ACCHS. These reports included indicators based on recommendations in the National Aboriginal Community Controlled Health organisations (NACCHO) Preventative Health Guidelines for STI and BBV testing and management. [58] Data were reported for all attending patients aged 15-54 years.

QIP sessions were conducted at each ACCHS to present STI and BBV testing and positivity data to ACCHS staff, including Aboriginal SRH workers. These sessions facilitated discussion about ACCHS-based strategies that could be implemented to improve testing and management of STIs and BBVs. These strategies were documented in an ACCHS-specific action plan. Quality improvement strategies focused mainly on increasing the offer of STI testing once a person attend the ACCHS. Between December 2012 and May 2014, Kirby Institute staff conducted 1-3 sexual health quality improvement sessions with each of the participating ACCHSs.

QIP sessions were planned to occur at six-monthly time intervals throughout the duration of the program evaluation, however the onset of QIP sessions was delayed due to several factors including recruitment of a Kirby Institute research officer, installment of GRHANITE on ACCHS computer systems and evaluation project initiation.

Evaluation

Overview of the evaluation

A process and impact evaluation of the Aboriginal SRH program was conducted from 2011 to 2014 by the Aboriginal Torres Strait Islander Health Program of the Kirby Institute and Family Planning NSW. The evaluation covered the program inputs and activities (see previous sections) and outputs and outcomes (see following sections).

The evaluation aimed to measure the impact of the Aboriginal SRH program, in particular the impact that the Aboriginal SRH workers and SRH activities had on increasing; young Aboriginal people's sexual and reproductive health literacy, self-reported confidence and intention in discussing sexual and reproductive health issues, access to sexual and reproductive health care, knowledge of pregnancy choices, use of condoms, and any reductions in sexually transmissible infections (STIs). See the KPIs for the Aboriginal SRH program listed in Appendix 1.

Funding and evaluation position

The evaluation was integrated into the program framework during the program planning phase and was included in the NPA-IECD funding. The Kirby Institute received funding for the overall evaluation, including a dedicated research position employed from 2011 to 2014 who was responsible for the management of the evaluation project, communication with ACCHS and program partners, and delivery of quality improvement reporting and feedback sessions with participating ACCHS. This research position was filled from 2012-2014.

Governance and meetings for the evaluation

Throughout the evaluation project, the Kirby Institute research team held regular project management meetings and had ongoing contact with the program partners, including site visits with ACCHS CEOs, Boards and staff, and additional program meetings at the AH&MRC and the MoH.

A reference group for the evaluation project was established in 2012 and comprised of members from the Kirby Institute, Family Planning NSW, AH&MRC, and NSW Health. The evaluation reference group advised on the methods and results of the evaluation and met as opportunity presented itself.

ACCHS participation

Participation agreements were signed by the Board at each ACCHS to formalise their involvement in the program evaluation. These participation agreements outlined the terms of collaboration, the transfer of electronic data, intellectual property rights, publication guidelines, confidentiality and other relevant items.

Site visits and phone calls with each ACCHS were taken as opportunities to gain input and feedback from ACCHS and their staff (including Aboriginal SRH workers) on the evaluation methods and the results of the evaluation.

Evaluation methods

Ethical approval

An evaluation project protocol was developed by the Kirby Institute in collaboration with program partners and other research investigators. The evaluation project was reviewed by the AH&MRC HREC and ethical approval was granted from 1 June 2012 to 31 July 2014, with approval for the use of data from January 2009 to 30 June 2014.

Target age range

The evaluation project data sources included ACCHS clinic data, and youth surveys. The Aboriginal SRH program targeted 12-19 years, however the data included in the evaluation of the program was restricted for each of the data sources. For the youth survey, data were restricted to 16-25 years because of the ethical requirements for parental consent for those less than 16. For the evaluation the clinic data for attendance, testing and positivity were restricted to 15-25 years because of ethical approvals, and contraception data were restricted to 16-24 years because the age of consent for contraception in NSW is 16 years. For QIP reports, clinic GRHANITE data extractions include a broader age range of 15-54 years to enable comparisons across age groups (Table 3).

Table 3: Evaluation data sources

Data source	Variables	ACCHS included
Clinic data	15-24 years: Attendance, STI testing, positivity 16- 24 years: New contraceptive prescriptions	ACCHS 1, 2, 4, 5,6 Data from ACCHS 3 was not included because complete clinic data for the before period was not available Data from ACCHS 7 was not included because the Aboriginal SRH worker and SRH activities did not commence at this ACCHS until midway through the program (2012). A worker was based at the LHD during this time.
Youth survey	16-25 years	ACCHS 1- 5 & 7 ACCHS 6 attempted to recruit participants in the survey, but was not successful

Data sources

The process and impact evaluation consisted of a number of different components:

(i) Survey of Aboriginal youth;
(ii) Combined ACCHSs clinical data (de-identified);
(iii) Stocktake and most significant change evaluation;
(iv) Local evaluations which are described at the end of the evaluation section; and
(v) Informal feedback obtained from Aboriginal SRH workers during program meetings and also from staff at each of the participating ACCHS at the conclusion of this project.

1) Survey of Aboriginal youth

Survey content and development

Survey questions were drawn from a pre-existing Aboriginal youth survey (GOANNA Survey), [1] and a range of surveys on contraception. [59, 60] Questions about satisfaction with contraception advice were developed with input from Aboriginal SRH workers and the program reference group. Wording of survey questions was informed by Aboriginal SRH workers and other ACCHS staff to ensure appropriateness for their local communities. Survey questions were mostly the same for males and females, with the only difference being that females were additionally asked about hormonal contraception use. The survey questions covered the following topics: demographics; STI knowledge; sex and relationship experience; use, knowledge and access to contraception (including condoms); STI testing; HPV vaccination; and ACCHS attendance. Participants were also asked about the types of sexual and reproductive health activities (SRH activities) that they had participated in.

The survey was focus tested with Aboriginal youth in two communities to ensure comprehension and validity with the target group and feasibility of questionnaire length. These focus testing sessions were organised and facilitated by Aboriginal SRH workers and the Kirby Institute research officer. Substantial input was received from the Evaluation reference group, the program reference group and Aboriginal SRH workers during development of the survey.

Participants

All Aboriginal youth aged 16-25 years who attended the ACCHS or external ACCHS programs (see below) over the course of a month were invited to participate in the survey. Recruitment continued until the sample target had been reached at each of the ACCHSs. The initial target sample size across the ACCHSs was 200, but at the midway point was extended to 300, with the additional survey collection focusing on 16-19 year olds to ensure a greater representation of adolescents - the main target age for the SRH Program (12-19years).

Recruitment

Participants were recruited by Aboriginal SRH workers and other staff, and participants were generally approached while in the waiting room at the ACCHS prior to their scheduled appointment. The survey was also offered at outreach services provided by an ACCHS, such as: off-site mums and bubs antenatal visits, off-site health checks, or any other routine health service related activity. Participants were provided with an information sheet, and provided consent either on paper surveys or via the iPad survey software.

Questionnaire administration

Survey data were collected through iPads using survey software, or paper questionnaires. Participants self-completed the survey then returned the iPad or paper survey to the ACCHS worker. Survey administrators were given a tally sheet to keep track of their target recruitment numbers, with each ACCHS aiming to recruit 50 participants. Survey responses were anonymous, and no identifiable information was collected to maintain confidentiality of participants.

2) Combined ACCHS clinic data (de-identified)

Data source

Clinical data were collected from ACCHS patient information management systems via GRHANITE program which extracted specified variables in a de-identified, encrypted format from Patient Information Management Systems (PIMS). The use of GRHANITE for data extraction was decided during initial program reference group meetings and this method of data extraction was explained to each ACCHS during initial site meetings. Participation agreements signed by Boards of each ACCHS gave approval for continuous data collection throughout the evaluation period. Information extracted by GRHANITE for all patients aged 15-54 years attending each ACCHS, included: age, sex, Aboriginal status, pregnancy, STI and BBV testing and contraception prescriptions. Contraception prescriptions were extracted by therapeutic class of prescription and included all types of oral hormonal contraception as well as medical devices that were entered into the prescription table of the patient information management system.

The accuracy of GRHANITE has been assessed through 1) an internal validation process showing that 100% of pathology test results were correctly classified as positive or negative, and 2) a comparison of external laboratory data demonstrating 92-95% concordance[61]. Face validity checks with Aboriginal SRH workers and ACCHS clinical team members also took part during QIP sessions. Contraception data analysis was determined in consultation with specialist clinicians.

Clinic data

The following indicators were calculated in 15-24 years (or 16-24 for contraception): unique patients attending each ACCHS for a clinical visit, percentage change in unique patients attending the ACCHS for a clinical visit, numbers of unique patients with a clinical visit tested for chlamydia, percentage of unique patients with a clinic visit tested for chlamydia, and numbers of positive chlamydia tests.

3) Stocktake and most significant change

A project review process with input from all partners, called a stocktake, was performed at the mid-term and again an end of the project. The purpose of the stocktake was to reflect on and discuss; project establishment, achievements, challenges, emerging issues, needs and priorities, strategies for sustainability, and to generate recommendations for others implementing similar projects. The stocktake process involved each of the partners writing a summary of their SRH activities, followed by a face to face meeting with the Aboriginal SRH workers, managers and/ or CEOs from each partnering organisations and the program partners. Reports documenting the stocktake outcomes were compiled for each stocktake. The stocktake meetings were facilitated by the state-wide support workers from Family Planning NSW and AH&MRC.

The Most Significant Change is a participatory monitoring and evaluation methodology based on the collection and discussion of stories of program impact [62]. As part of the end of project stocktake, the Aboriginal SRH workers, managers and State-wide coordinators documented, shared and discussed stories of change that resulted from the program and SRH activities. From this discussion the group of Aboriginal SRH workers nominated the stories and the reasons for the selection that they felt best represented the impacts and successes of the program. These have been included in the evaluation outcomes as the Most Significant Change stories providing an additional element to the evaluation that could not be captured using quantitative evaluation methods.

4) Independent evaluations of specific components of the Aboriginal SRH program

Evaluations of specific components of the NSW Aboriginal Sexual and Reproductive health program have been conducted by program partners, these include:

Evaluation of the AH&MRC's SRH campaign "It's your choice have a voice- Rights, Respect, Responsibility"[57]

An evaluation of the state-wide SRH campaign, *"It's your choice have voice- Rights, Respect, Responsibility"*, was completed by INCA consulting in May 2012. The evaluation consisted of baseline and post campaign research. The baseline research involved four focus groups with

23 young Aboriginal people from 3 communities; and surveys of sexual health workers, Aboriginal education officers, youth workers, mental health workers, AOD workers and stakeholders. The post-campaign research involved focus groups with 26 Aboriginal young people who had participated in campaign workshops in 3 communities; analysis of workshop attendance and user data from the campaign Facebook page; interviews with workers and other stakeholders; and a performance report prepared by the workshop developers at the end of the campaign. A copy of the campaign evaluation report can be found at http://www.ahmrc.org.au/

Evaluation of the Family Planning NSW training and education programs developed for Aboriginal SRH workers

An evaluation of the "Sexuality, Health and Facilitating Groups" workshops was conducted by Family Planning NSW using pre and post training surveys, focus groups, and follow-up interviews with workshop participants. There were 63 participants in pre-workshops surveys, 52 participants in post-workshop surveys and 41 participants in post-course focus group discussions. Details of the evaluation methods can be obtained from http://www.fpnsw.org.au/

Evaluation of the Local Health District's Aboriginal SRH campaigns and activities

An evaluation of the LHD sexual and reproductive health workshops for youth called "Making Proud Choices" was conducted using pre and post workshop surveys of participants. There were responses from 72 participants (28 males and 44 females) pre-workshop and 52 participants post-workshop. Details of the evaluation methods are available on request.

Outputs of the Aboriginal SRH program

Number of SRH projects

Local projects

Throughout the funding period (2010-2014), 67 local SRH activities were implemented by Aboriginal SRH workers. The stocktake of the first half of the project identified 32 local SRH activities conducted between June 2010 and June 2012 (Phase 1) and the final stocktake identified 36 local SRH activities conducted between July 2012 and December 2013 (Phase 2). Not all ACCHSs provided information for to the stocktake, so local SRH activity implementation may have been higher. These activities were supported by the state-wide partners. Additionally, the social marketing campaign developed by the AH&MRC *"It's your choice, have a voice – Rights, Respect, Responsibility"* was delivered at two time points during the program to each of the participating ACCHS.

The numbers of young people estimated to have been reached by the SRH activities and campaign during each phase of the program are shown in Table 4.

Table 4: Stocktake of projects

	Phase 1 (October 2011 - March 2012)	Phase 2 (July 2012 – December 2013)
Number of SRH activities initiated:	32	36
Total number of target age group reached through SRH activities (including state wide SRH campaign)^	7653	4757

*Note – numbers in this table may be underrepresented because full activity summaries were not received by all partners.

^Individuals participating in more than one activity could be counted twice.

AH&MRC SRH campaign "It's your choice have a voice- Rights Respect Responsibility"[57]

The evaluation of the state-wide sexual and reproductive health campaign, *"It's your choice have a voice- Rights, Respect, Responsibility"* conducted by INCA consulting in May 2012, found that the campaign reached 14 communities across NSW, including all of ACCHs involved in the Aboriginal SRH program. There were 48 hip hop workshops, 20 music workshops, 13 salsa workshops and 13 Deadly styles workshops. Between 4000-5000 young people were involved and 90% of those reached were in the target age of 12-19 years. There was lower representation from 17-19 years olds, which was thought to be due to a number

of factors, including school exams, school's decisions about who could participate, and difficulties in engaging young people out of school settings. Participants were both Aboriginal and non-Aboriginal.

Training attendance and capacity building

Aboriginal health college (AHC) courses

Seven of the 19 Aboriginal SRH workers that were employed throughout the Aboriginal SRH program undertook courses at the AHC, with 5 Aboriginal SRH workers attaining Certs III or IV (Table 5).

Table 5: Training undertaken by the Aboriginal Sexual and Reproductive Health workers at the Aboriginal Health College (AHC)

Completed	Partially Completed/ Completing	Type of training
3	3	HLT43907 Certificate IV in Aboriginal and Torres Strait Islander Primary Health Care (with a focus on Sexual Health)
2*	1	HLT33207 Certificate III in Aboriginal and Torres Strait Islander Primary Health Care
1*		Certificate IV in Aboriginal and Torres Strait Islander Primary Health Care (Practice).
1		HLT52107 Diploma of Aboriginal and Torres Strait Islander Primary Health Care (with a focus on Sexual Health)
1		Viral Hepatitis training
1		Venepuncture course
	1	TAE40110 Certificate IV in Training and Assessment

* x1 completed in previous role.

Family Planning NSW SRH training

The Family Planning NSW "Sexuality, Health and Facilitating Groups" training was delivered in 9 locations throughout NSW to 76 people. Aboriginal SRH workers employed during the second half of the program attended the training.

Conference presentations

Aboriginal SRH workers and program partners from the LHD, AH&MRC, Kirby Institute and Family Planning NSW presented outcomes and lessons learnt from the Aboriginal SRH

program at five separate conferences between 2012-2014. These conference included the International Union against Sexually transmitted infections Asia Pacific conference (2012), the National Sexual and Reproductive health conference (2012 & 2014), and the Australasian Sexual Health Conference in (2013 & 2014) (Table 6). A list of conference oral and poster presentations are listed in Appendix 5: Conference abstracts, posters and presentations.

Table 6: Number of conference presentations based on the Aboriginal SRH program outputs

	2012 IUSTI-Asia Pacific	2012 1st National SRH conference	2013 Australasian Sexual health conference	2014 Australasian sexual health conference	2014 2nd National SRH conference
Aboriginal SRH worker (poster)	-	-	4	-	-
Aboriginal SRH worker (oral presentation)	2	1	1	2	-
Program partner (poster or presentation)	-	2	-	2	1

Organisational and Individual capacity

During stocktake meeting discussions Aboriginal SRH worker gave feedback that employment in these roles had allowed them to develop their personal skills in facilitating small groups, organising events, providing education sessions, public speaking and, presentations, which they felt would broaden future career opportunities and involvement in other aspects of the organisation. Peer education activities were also seen an effective way to reach members of the target age group while empowering the peer educators as leaders in their communities.

Aboriginal SRH workers and program partners also gave feedback that the appointment of the Aboriginal SRH worker influenced the ACCHSs' capacity to deliver health promotion programs. For example, Aboriginal SRH workers were involved in the development of

culturally appropriate protocols, processes, and in one setting a cultural audit which has been integrated into other health promotion programs within ACCHSs. One Aboriginal SRH worker developed a portfolio about the processes involved to run the SRH programs and activities, so that these activities can be replicated in the future by other workers, and so that the processes can be used for planning campaigns across other health issues. One ACCHS was successfully rewarded a community grant based on increases in attendance by young people following the ACCHS involvement in the program.

It was also documented that Aboriginal SRH workers and the ACCHS had developed and strengthened relationships with schools and teachers, mental health programs, police, councils, Medicare Locals, Police citizens youth clubs (PCYC), sports teams, and other townships. For example, ACCHSs are being invited to deliver additional health promotions programs with these partners.

Evaluation results

1. Survey of Aboriginal youth

Tables documenting each of the survey variables are detailed in Appendix 2: Detailed tables for all survey variables. The main findings from the survey responses have been outlined below.

Summary: Survey of Aboriginal youth

- Most (85%) participants were sexually active
- Two-thirds participated in at least one SRH activity; the most common activities were Community events (48%), school based activities (38%) and hip hop (28%)
- A higher proportion of Aboriginal people who participated in SRH activities:
    - had spoken to a staff member at the ACCHS about prevention/contraception
- A higher proportion of males who participated in SRH activities
    - had previously talked to someone about prevention/contraception
    - comfortable to talk to family about sex
    - sought advice about STIs
    - were aware of more STIs
- A higher proportion of females who participated in SRH activities
    - had sought advice about STIs from an ACCHS, or sexual health workshop or campaign
    - Were aware of the need for yearly sexual health checks
    - were aware of where to access emergency contraception
    - were aware of Intrauterine devices (IUDs)
    - reported current use of Implanon
    - got condoms from an ACCHS
- There were some gaps in knowledge of contraceptive choices, such as emergency contraception, and parental consent and recognition of STIs

Survey participants

There were 248 Aboriginal youth aged 16-25 year old who participated in the survey, 125 males and 123 females. The median age of was 20 years (20 years females, 18 years males), with 57% of survey respondents aged 16-19 years.

Survey respondents were recruited from 6 ACCHSs, including 5 ACCHSs that participated in the Aboriginal SRH program from 2010-2014 and one ACCHS that participated from 2012-2014. One ACCHS that participated in the entire SRH program implemented the survey but was unsuccessful in recruiting participants. Half of the surveys (51%) were collected at two

regional ACCHSs, 18% from the urban ACCHSs and the remaining 31% from three ACCHSs (2 remote and 1 regional).

The highest level of education reported was year 10 for 60% of survey respondents (72% of 16-19 year olds and 44% of 20-25 year olds), year 12 for 19% of survey respondents (8% of 16-19 years and 34% of 20-25 years) and 4% had completed a diploma or university. History of imprisonment was reported by 15% of survey respondents (17% of 16-19 year olds and 12% of 20 to 25 year olds), and male history of imprisonment was 4 times that of females.

The majority of survey respondents were heterosexual (91%). In regards to current relationships status, 58% were single, and 38% were in a relationship or married, similar for both males and females.

The majority (85%) of survey respondents reported they were sexually active (ever had vaginal or anal sex) at the time of the survey; 87% of males and 82% of females. Of those who had ever had sex, 48% reported they were aged 16 years or less at first oral and 52% were aged 16 or less at first vaginal sex. A quarter of males and half of females reported having children, and of these, half had two or more children.

Coverage of sexual and reproductive health activities

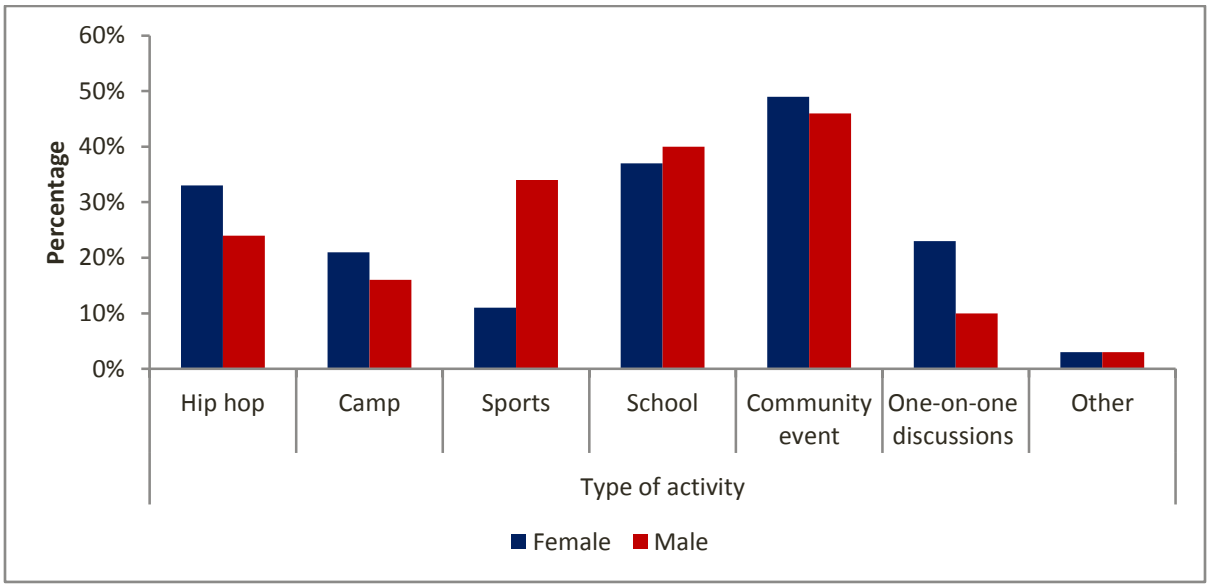
Sexual and Reproductive health activities (***'SRH activities'***) were defined as health promotion campaigns and education facilitated by an Aboriginal SRH worker or an ACCHS. Survey participants were asked if they had participated in a list of activities about sexual health in the past 12 months. (Note: the term 'activities' was not strictly used by Aboriginal SRH workers when advertising health promotion campaigns or educational programs and some survey respondents may have been confused with the use of different terms.)

Of the total sample of survey respondents, 65% reported they had participated in at least one SRH activity, 70% of 16-19 year olds and 60% of 20-24 year olds.

Of those who said they had been involved in a SRH activity, the settings/activities included; community (48%), school (38%), Hip Hop workshops (28%), sporting events (23%), camps (23%) and one-on-one discussions with Aboriginal sexual health workers (16%).

Among males and females community events and school based activities were the two most common followed by sports activities for males (34%) and Hip hop for females (33%) (Figure 4).

Figure 4: Proportion of survey participants who reported participating in each SRH activity, by sex (n=236)



The following section compares some of the KPIs in those young Aboriginal people who reported they participated in SRH activities in the past year compared to those who did not participate. Of the total survey sample (n=248), 12 people did not provide a response to the question about participation in SRH activities in the past year and were excluded from these analyses.

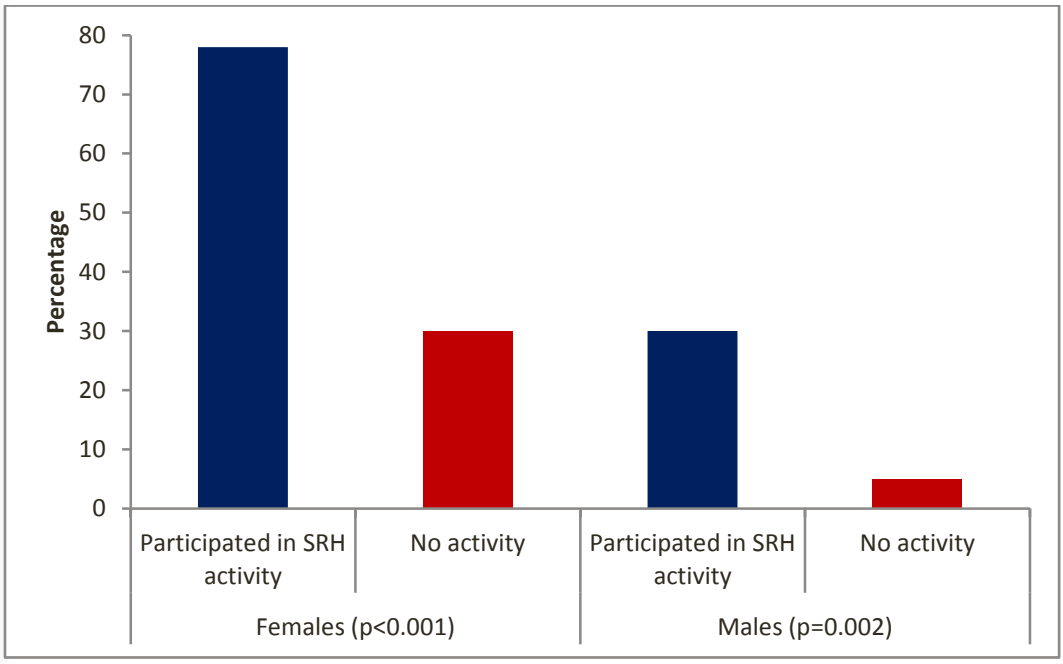
Accessing information about contraception

Survey respondents were asked if they have had a talk with someone about prevention/ contraception before. The term prevention/contraception was used because during focus testing young people said they used the term prevention more than contraception. Two hundred and eight (208) survey participants provided a response to this question, and 132 (51% males, 49% females) of those reported that they had spoken to someone about prevention/ contraception before.

A higher proportion (59%) of Aboriginal males who participated in SRH activities had previously talked to someone about prevention/contraception, compared to those who had not participated in an activity (33%) (p=0.013). Of both males and females who had spoken to someone about prevention/contraception, a higher proportion who participated in SRH

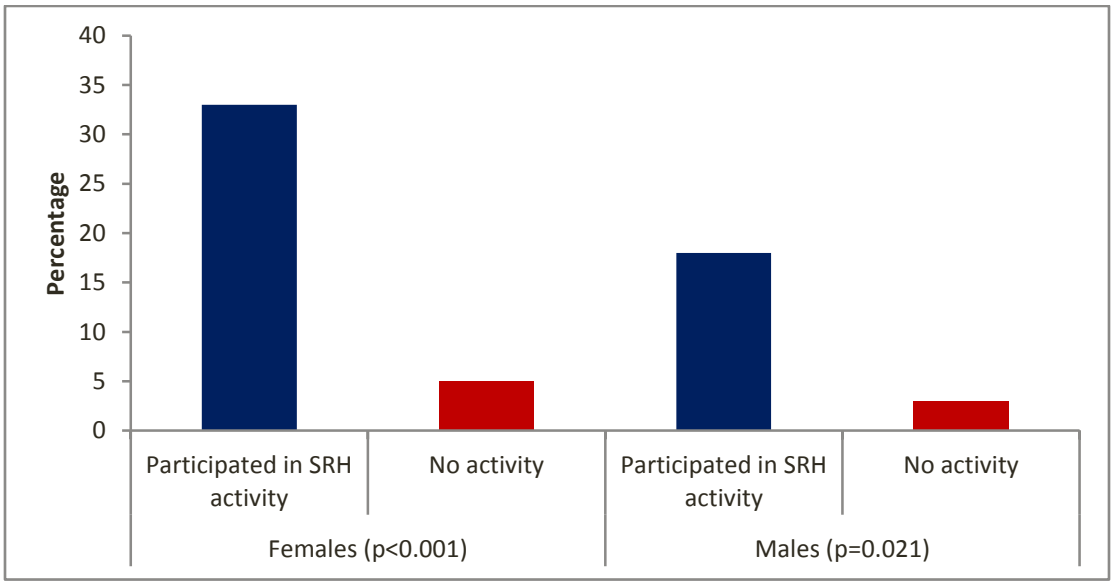
activities had spoken to a staff member (doctor, nurse or health worker) at the ACCHS, rather than a family member, or partner (53%) (Figure 5), compared to those who had not participated in an activity (19%) (p>0.001).

Figure 5: Survey participants who spoke to any ACCHS staff (doctor, nurse or health worker), rather than family or partners about prevention/ contraception, by SRH activity participation and sex (n=97)



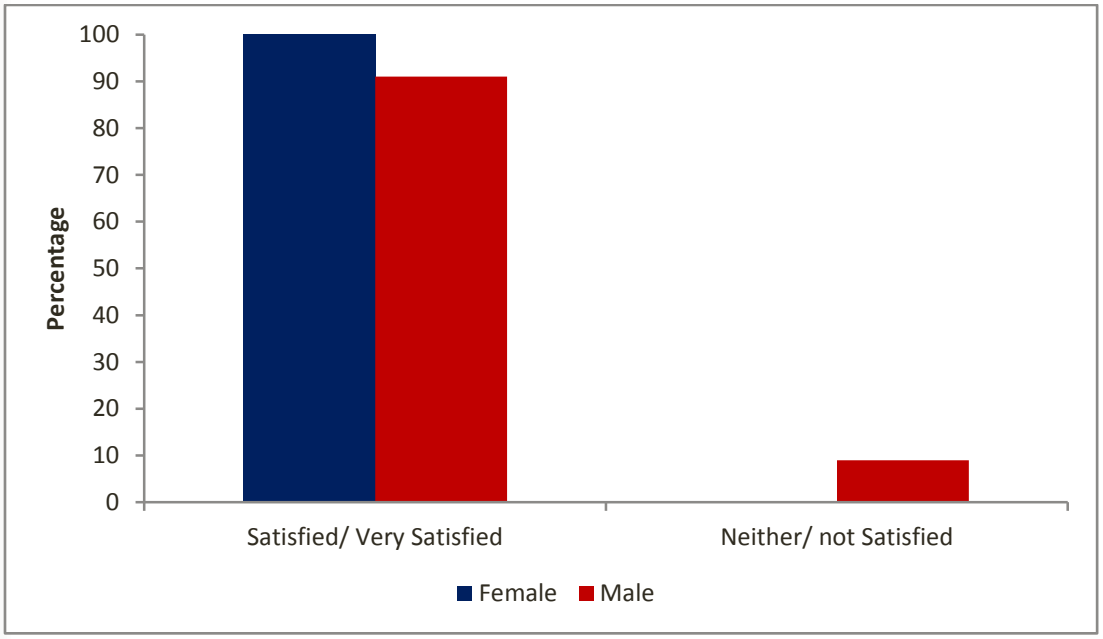
Of the staff members, a higher proportion of females (33%, p<0.001) and males (18%, p=0.021) who had participated in SRH activities had spoken with an AHW than those who had not participated in an activity (Figure 6).

Figure 6: Survey participants who spoke to an Aboriginal Health Worker at the ACCHS about prevention/ contraception, by SRH activity participation and sex (n=42)



Of those survey participants who had spoken to an ACCHS staff (doctor, nurse, AHW) about prevention / contraception, nearly all (female 100%; male 91%) reported that they were satisfied with the talk (Figure 7).

Figure 7: Satisfaction of prevention/ contraception talks with ACCHS staff member, by sex (n=85)



Comfort talking about sex

A higher proportion of males (41%) who participated in SRH activities reported they were comfortable to talk to family about sex than those who did not participate in activities (15%) (p=0.028). There were no significant difference seen between females who participated in SRH activities and those who did not (31% vs 21%, p=0.536).

STIs: advice and testing

A higher proportion of Aboriginal people who had participated in SRH activities had ever sought advice about STIs, compared to those who had not participated in activities. For males the differences were 79% vs 51% (p=0.002) and for females 90% vs 77% (p= 0.051).

Most (78%) of the survey participants had sought advice about STIs before, and the most common places to seek advice were an ACCHS (44%), followed by school (22%) and family members (18%). Of those who had sought advice about STIs before, a higher proportion of females who participated in SRH activities had received the advice from an ACCHS (58%) compared to those who had not participated in activities (27%) (p=0.001), and a higher

proportion had received it from sexual health workshops/campaign (18%) compared to those who had not participated in activities (0%) (p=0.003).

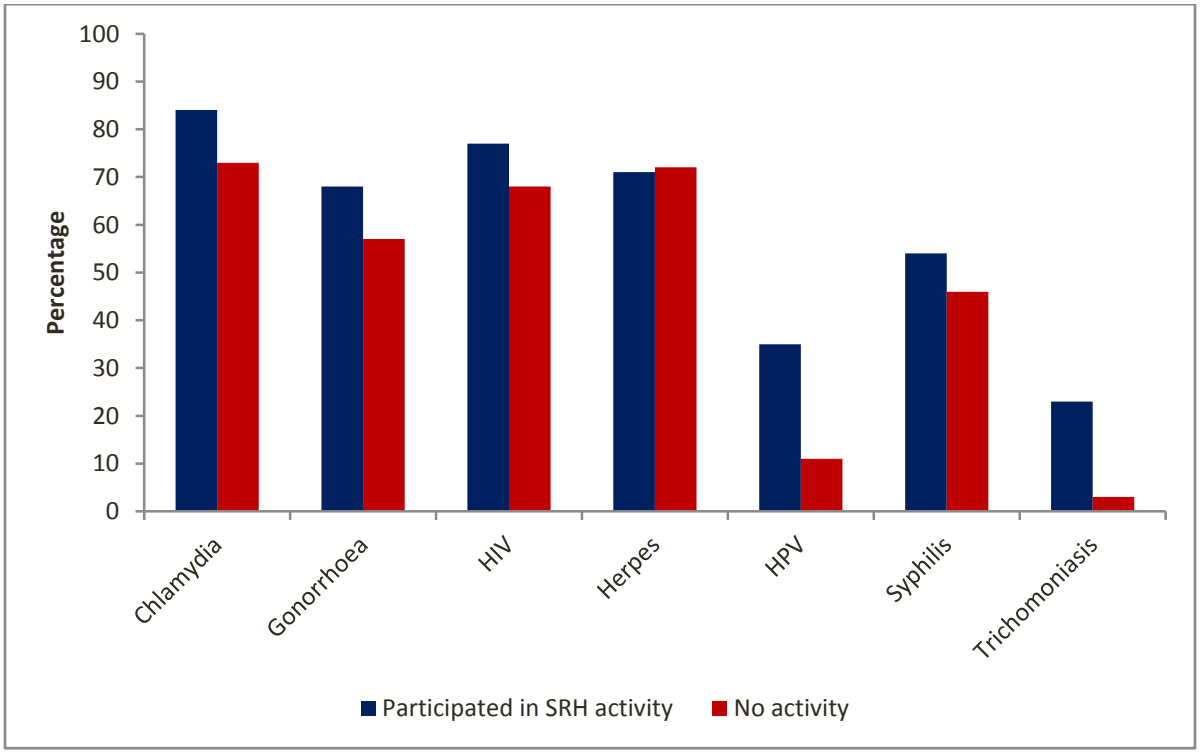
Among Aboriginal females who reported they had been tested for chlamydia within the last year, there were similar proportions of those who had participated in SRH activities (36%) and those who had not (37%). Among males the proportion that reported they had been tested for chlamydia within the last year was lower than females, however proportions were similar between those who had participated in SRH activities (24%) and those who had not (27%).

Knowledge of STIs and contraception

Survey participants were presented with a list of 7 sexually transmissible infections (STIs) and asked how many they had heard of, the mean number of STIs recognised by survey participants was 3.4. The most commonly recognised STIs were chlamydia, HIV and herpes. HPV and Trichomoniasis were the least common STIs recognised.

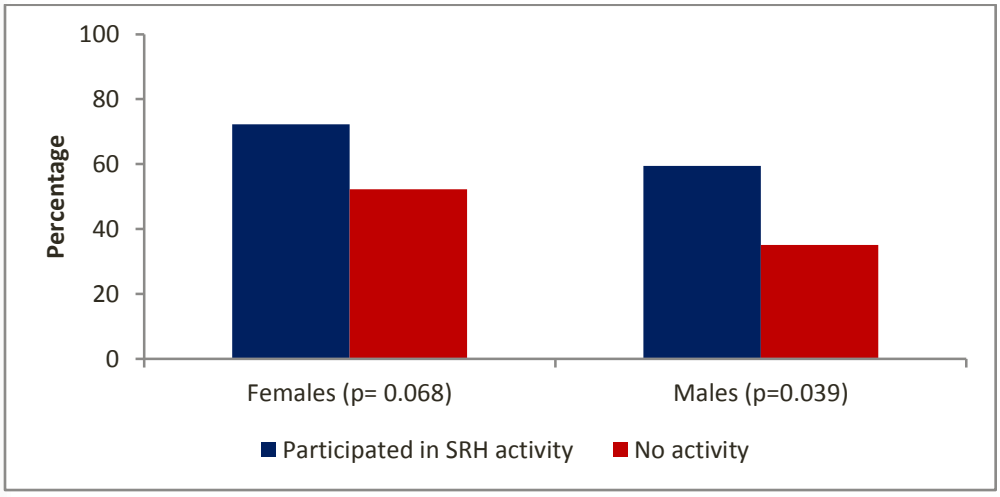
Males who had participated in SRH activities recognised more STIs from the list (mean of 3.6) than males who had not participated (mean of 2.8) (p=0.045), and had greater recognition of nearly all STIs (Figure 8).

Figure 8: STI recognition among males, by SRH activity participation (n=119)



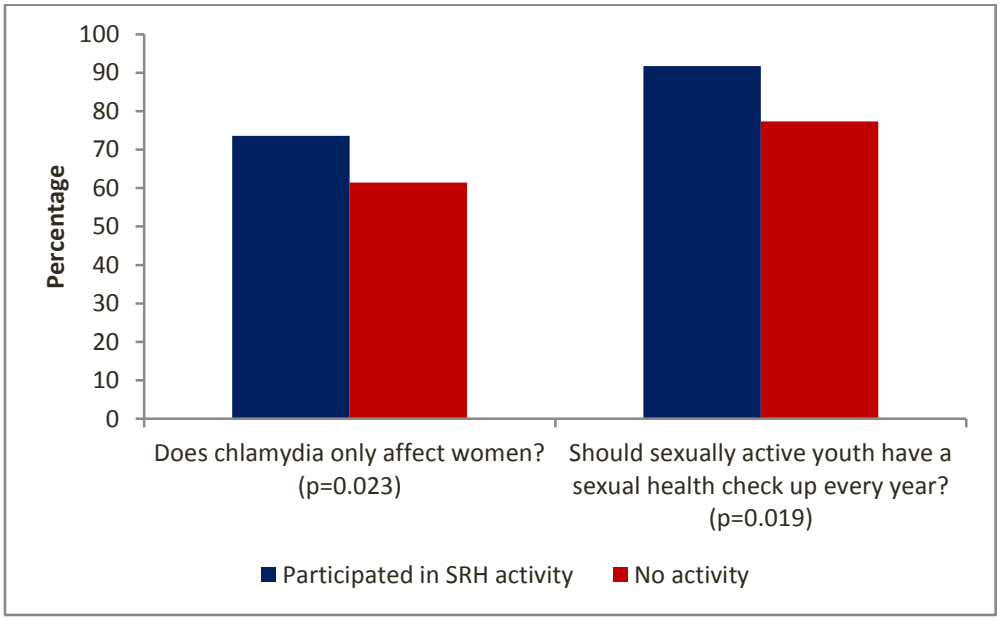
A higher proportion of males who had participated in SRH activities (59%) could correctly identify that a person can have an STI without symptoms, than males who had not participated (35%) (p=0.039). There was a similar difference in females who had participated in SRH activities compared with females who had not participated (72% vs 52%), but it was not statistically significant (p=0.068) (Figure 9).

Figure 9: Awareness that a person can have an STI without symptoms, by SRH activity participation and sex (n=232)



A higher proportion of females who participated in SRH activities correctly identified that youth should have a yearly sexual health check-up (92%) than females who did not participate in activities (77%) (p=0.019) (Figure 10). A higher proportion of females who participated in SRH activities correctly reported that chlamydia does not only affect females (74%) (p=0.023), than females who did not participate in activities (61%) (Figure 10).

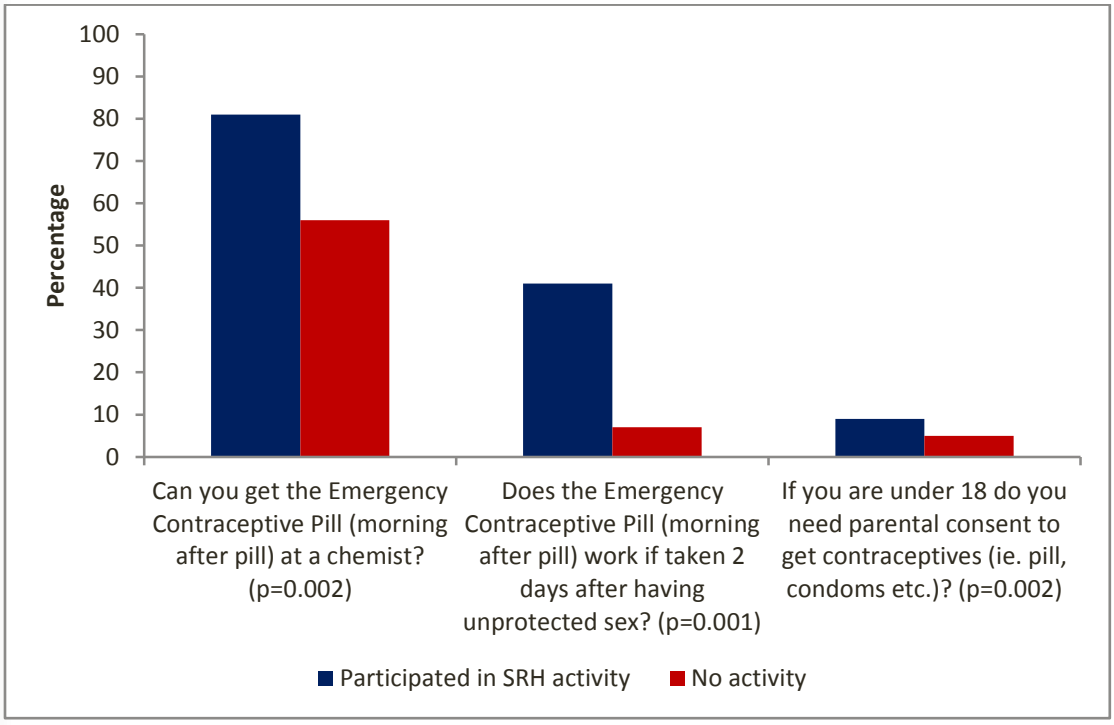
Figure 10: Correct responses to select sexual health knowledge questions among females, by SRH activity participation (n=115)



Females who participated in SRH activities had significantly higher knowledge of contraception options and access; this includes awareness that emergency contraceptive pills are available from a chemist (81%) than females who did not participate in SRH activities (56%) (p=0.002) (Figure 11).

However, despite contraceptive knowledge being significantly higher in females who participated in SRH activities, there were still large gaps in contraception knowledge of all participants, including knowledge of the emergency contraceptive pill effectiveness after 2 days (41% answering correctly) and parental consent requirements for contraceptives for those under 18 (9% answering correctly) (Figure 11).

Figure 11: Female contraception knowledge questions answered correctly, by SRH activity participation (n=115)



Of all survey participants, females generally had high knowledge of contraception choices (see Table 7). Nearly all females who participated in SRH activities (>95%) had heard of condoms and the contraceptive pill, around 70-95% had heard of the emergency contraceptive pill, Depo-Provera and Implanon, and fewer had heard of IUD, diaphragm and vaginal ring.

Table 7: Females recognition of contraception choices (n=117)

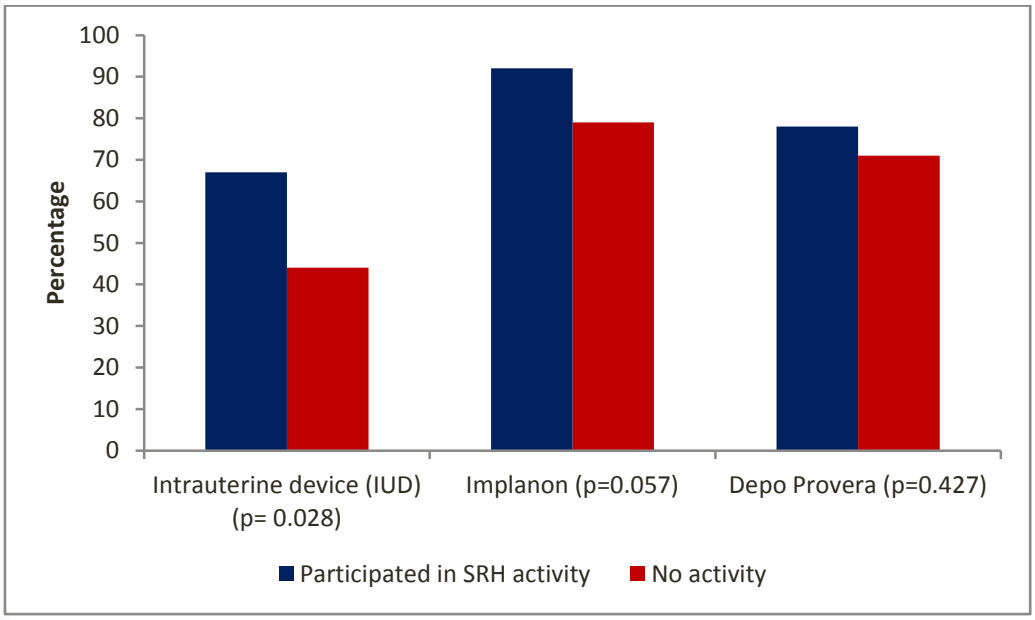
Contraception type	Recognised by females n (%)
Condoms for pregnancy prevention	103 (84)
Condoms for STI prevention	101(82)
Contraceptive pills	104 (85)
Emergency Contraceptive Pill (ECP)	87 (71)
Depo-Provera	73 (59)
Implanon	92 (78)
Intrauterine Device (IUD)	59 (48)
Diaphragm	69 (56)
Vaginal Ring (Nuva)	64 (52)
Any LARC	94 (80)

Of females who participated in SRH activities 92% had heard of Implanon compared with 79% of females who did not participate in activities (79%), but this difference was not statistically significant (p=0.057) (Figure 12).

A higher proportion of females who participated in SRH activities had heard of IUDs (67%) than females who did not participate in activities (44%) (p=0.028) (Figure 12).

Of females who participated in SRH activities 82% had heard of any LARC (Implanon, IUD, injection) (82%) compared with 68% of females who did not participate in activities, but this difference was not statistically significant (p=0.081).

Figure 12: Females recognition of long acting reversible contraceptives (LARCs), by SRH activity participation (n=101)



For other contraceptive methods, there were no significant differences in awareness of any contraceptive methods for males and females who had participated in SRH activities. There was no significant difference in awareness of any contraceptive methods between males and females who had participated in SRH activities (80% vs 89% respectively, p=0.120).

Contraception use

Of all survey participants, 64% reported current use of any form of contraception, with 54% of Aboriginal youth reporting current use of condoms for prevention of STIs or contraception.

Among the sexually active females who had participated in SRH activities 53% reported condom use at last sex compared to 34% who did not participate in activities, however this was not statistically different (p=0.102).

Of females who participated in SRH activities 67% reported current use of any form of effective contraception, compared to 61% who did not participate, however this difference was not significant (p=0.527). A higher proportion of Aboriginal females who participated in SRH activities reported using contraceptive implants (Implanon) 31% compared to those who did not participate in activities (6%) (p=0.001).

Among Aboriginal females who participated in SRH activities, 41% reported currently using of condoms, and 21% reported currently using OCPs compared with 20% and 14% respectively who did not participate in SRH activities. However these differences were not statistically significant. Of those who reported current use of an OCP, a third reported missing a dose within the last month.

There were no significant differences in current contraceptive use among males who participated in SRH activities and those that did not.

A higher proportion of Aboriginal females who participated in SRH activities reported they got condoms from health services (68%) compared with those who did not participate (22%) (p<0.001). A higher proportion of females who did not participate in SRH activities reported that they buy their condoms from chemists, supermarkets, shops or service stations ('servos') (35%) compared to those who participated in SRH activities (8%) (p=0.001).

2. Combined ACCHS clinic data (de-identified)

Summary: Clinic data

Comparing the 6 month periods before the program commenced (January-June 2010) to the 6 month period after commencement (July-December 2013):

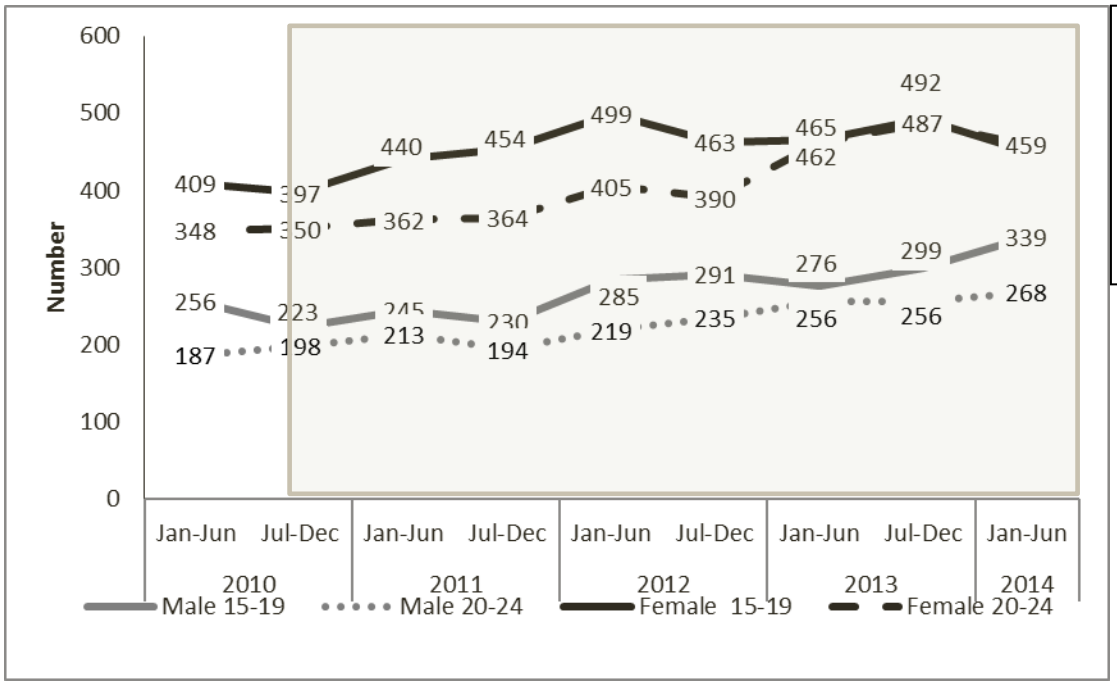
- The number of unique young people (16-24) attending for medical consultations increased by 28%, with the greatest increases among the 20-24 year age group
- The number of unique people test for chlamydia at the ACCHSs increased by 66%
- The proportion of unique people tested for chlamydia at the ACCHSs increased from 12% in the before period to 16% in the after period
- The number of new contraception prescriptions increased by 46%
- The number of new LARC prescriptions increased by 38% with an increase of 58% among 16-19 year old women

Number of patients attending

To assess if health promotion activities resulted in increased health seeking behaviour, we measured the number of people in the target age groups attending an ACCHS for medical consultations via GRHANITE software from before the program commenced (January-June 2010) to after commencement (July-Dec 2013) (Figure 13: shaded area). Although the program concluded in June 2014 we chose the previous 6-month period as the comparison point as a number of Aboriginal SRH worker positions became vacant before the end of the program due to workers having uncertainty of the continuation of their roles after the end of the funding period.

The number of unique patients attending for medical consultations between the before and after period increased by 28%. Among 15-19 year olds attendance increased by 17% for males and 20% for females during this period, and in 20-24 year age there was a 37% and 40% increase among males and females respectively. There was variation in these increases across ACCHSs (from 5% to 50%). Between January 2014 and June 2014 there was a decline in overall attendance at some of the participating ACCHSs (data not shown), with other services still increasing and thus a plateau in the last time period overall (-1% change).

Figure 13: Number of Aboriginal youth attending participating ACCHS, by age group and sex, January 2010 - June 2014

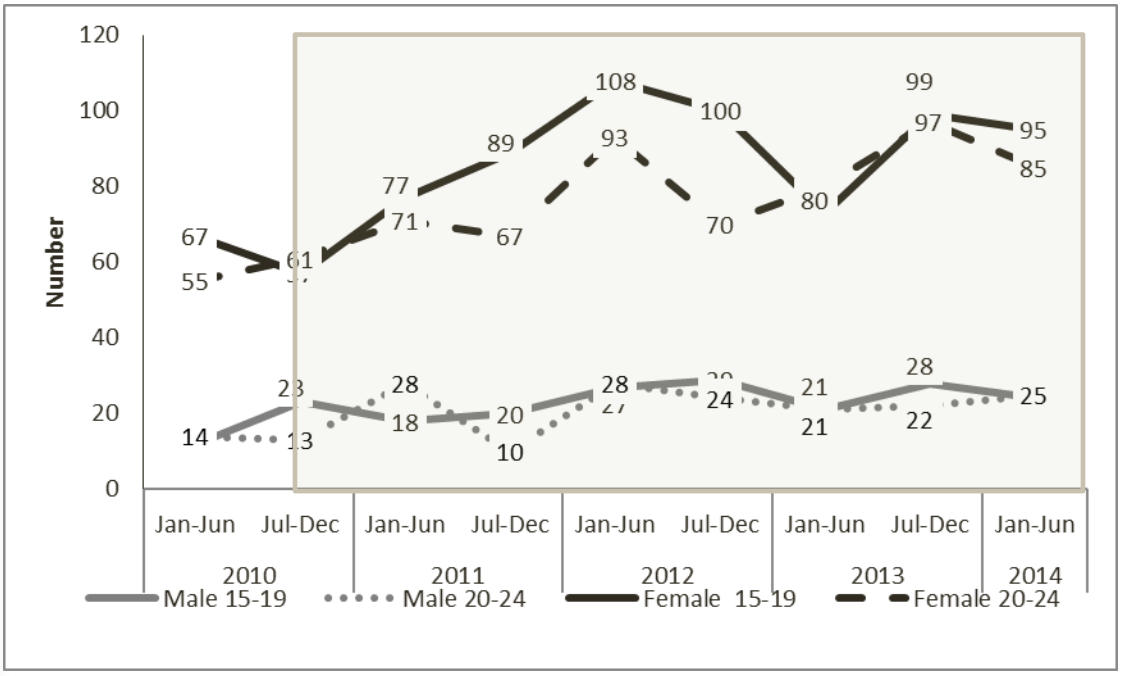


Attendance increased 28% between the before and after periods

Chlamydia testing

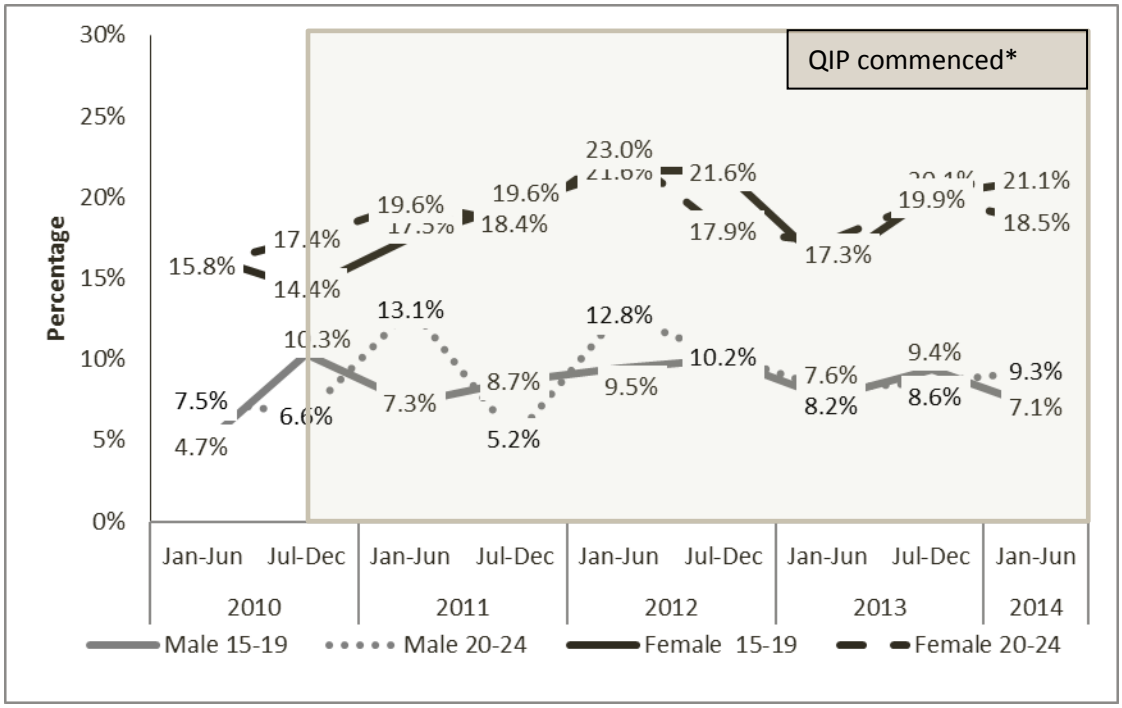
Between the before and after periods (Figure 14: shaded area), there was a considerable increase (+66%) in the number of unique patients tested for chlamydia at participating ACCHSs. Among 15-19 year olds, the number of unique patients tested for chlamydia increased in males (+133%) and females (+47%), and among 20-24 year olds, there was a 57% and 76% increase among males and females respectively. There was variation in the change in number of unique patients tested for chlamydia across ACCHS from -12% to +508%.

Figure 14: Number of unique patients tested for chlamydia, by age group and sex, January 2010- June 2014



From before the program commenced (January-June 2010) to after commencement (July-Dec 2013) there was an increase in the proportion of patients tested for chlamydia (Figure 15: shaded area). For example in the after period (Jun- Dec 2013) the proportion of 15-19 year old females tested was 20% compared with 16% in the before period, the proportion of 15-19 year old males tested in the after period was 9% compared with 5% in the before period, the proportion of 20-24 year old females tested was 20% compared with 16% in the before period, and the proportion of 20-24 year old males tested was 9% compared with 7% in the before period.

Figure 15: Proportion of unique patients tested for chlamydia, by age group and sex, January 2010- June 2014.

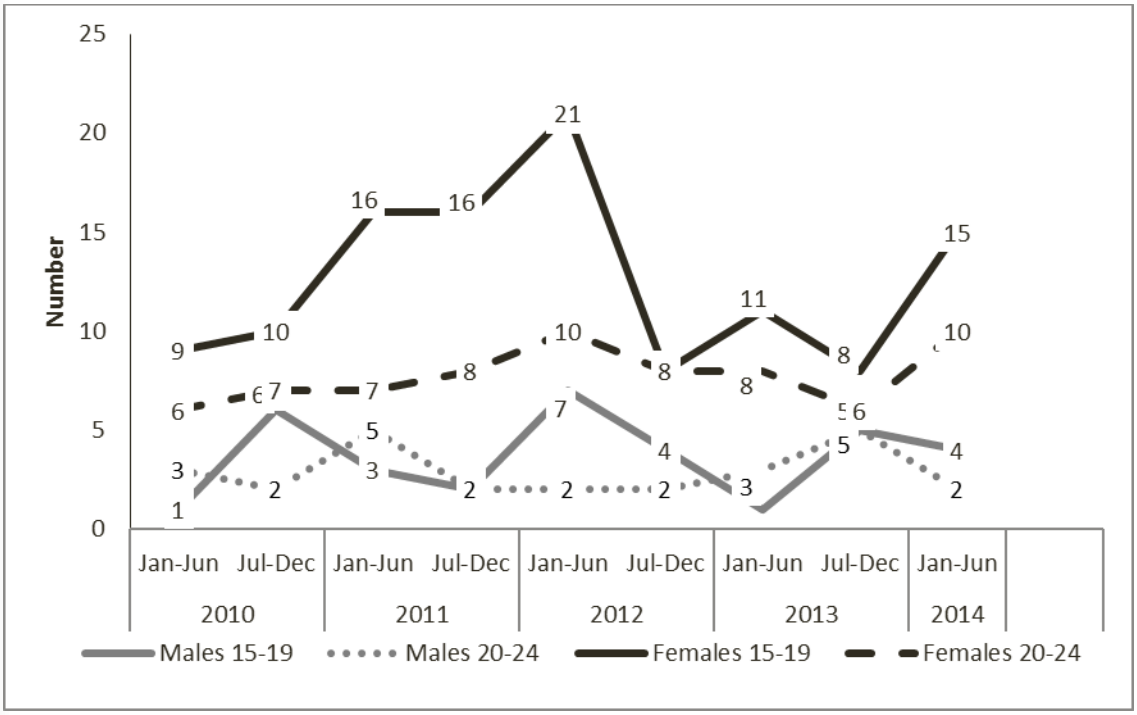


*QIP= Quality improvement program (see Quality improvement program (QIP) section)

Number of positive chlamydia tests and chlamydia positivity

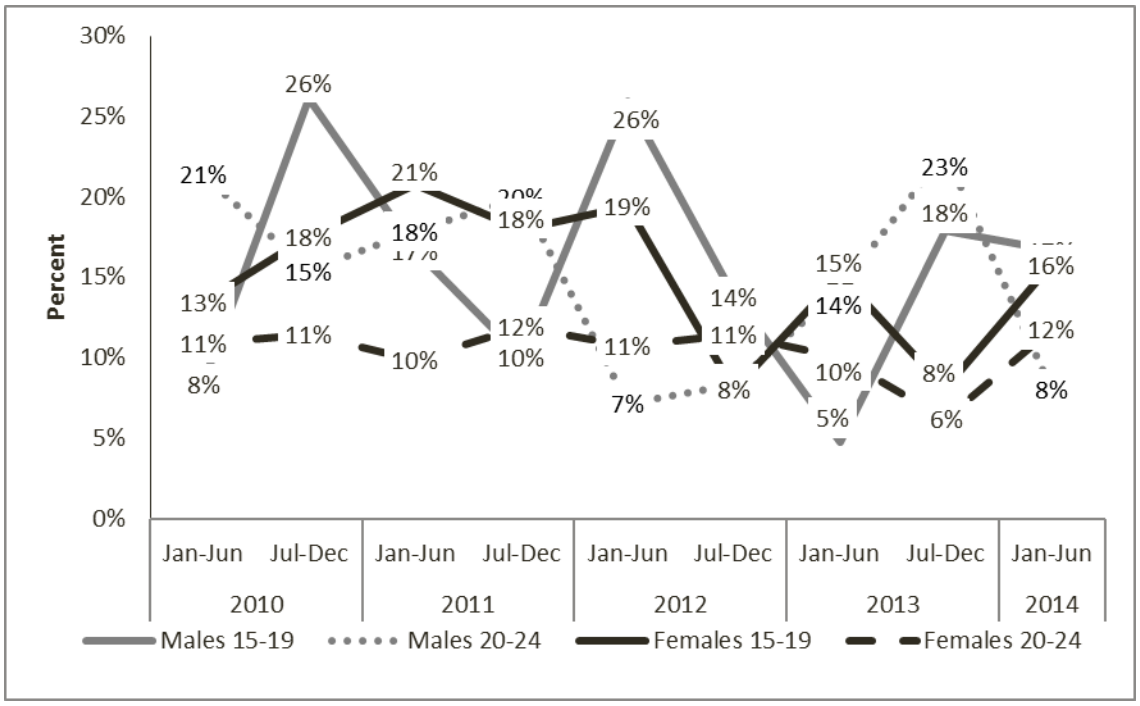
The number of unique patients with a positive chlamydia test result was measured with data extracted from the clinic system via the GRHANITE software program (Figure 16). There were higher numbers of unique patients with positive test results among females for both the 15-19 and 20-24 year old age groups, however higher chlamydia testing coverage among females may have detected more positive cases. A higher number of positive cases among 15-19 year old females is consistent with national surveillance data.

Figure 16: Number of unique patients with a positive chlamydia test results, by age group and sex, January 2010- June 2014



The proportion of positive chlamydia tests was calculated using the number of unique patients with a positive chlamydia test and the number of unique patients who were tested for chlamydia (Figure 17). This proportion was highest among males, which suggests that males are most likely being tested due to symptoms or a recent risk event.

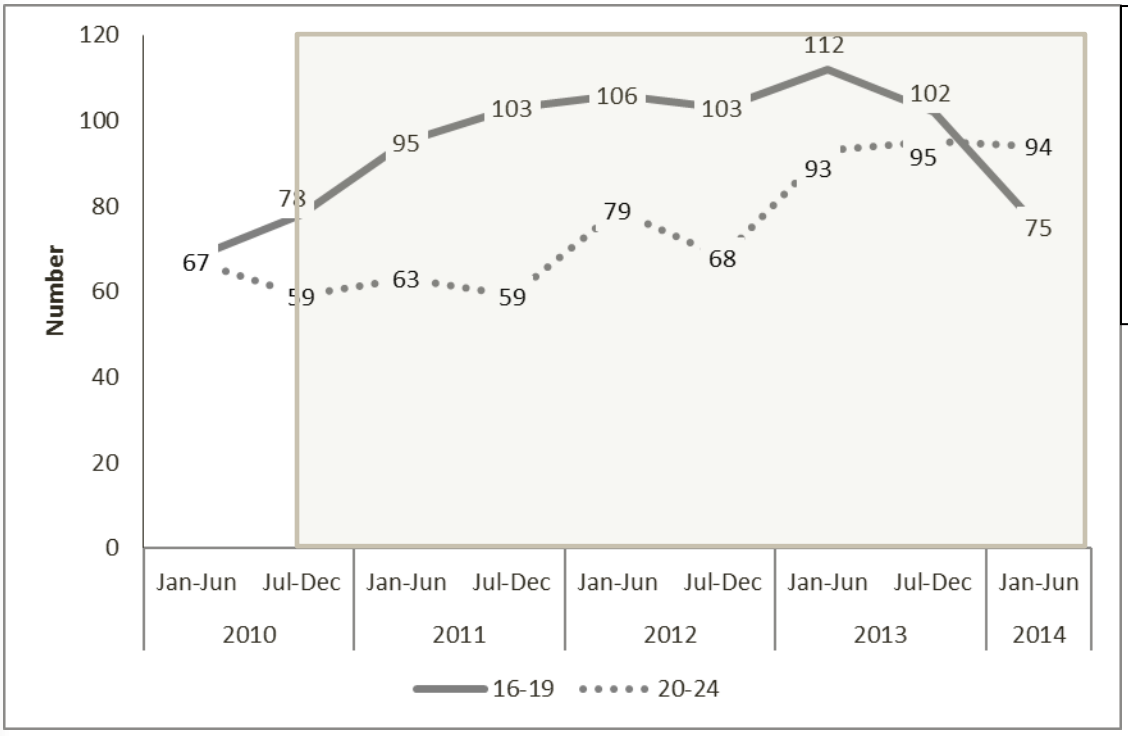
Figure 17: Proportion of unique patients tested for chlamydia with a positive result, by age group and sex, January 2010- June 2014



Contraception

The number and type of new contraceptive prescriptions were measured with data extracted from the clinic system via the GRHANITE software program. The type of contraceptive prescribed in the ACCHS setting include OCP and implant (Implanon), or injectable (Depo-Provera). New prescriptions for other contraceptive types that require specialist insertion/fitting at other health services, including IUDs (Mirena and copper) and diaphragms, were not included. The number of females prescribed a contraceptive was counted for each 6 month period between 2010 and 2013, with each woman counted once (Figure 18).

Figure 18: Number of new contraceptive prescriptions in females, by age group, January 2010- June 2014



New contraceptive prescription increased 46% between before and after periods

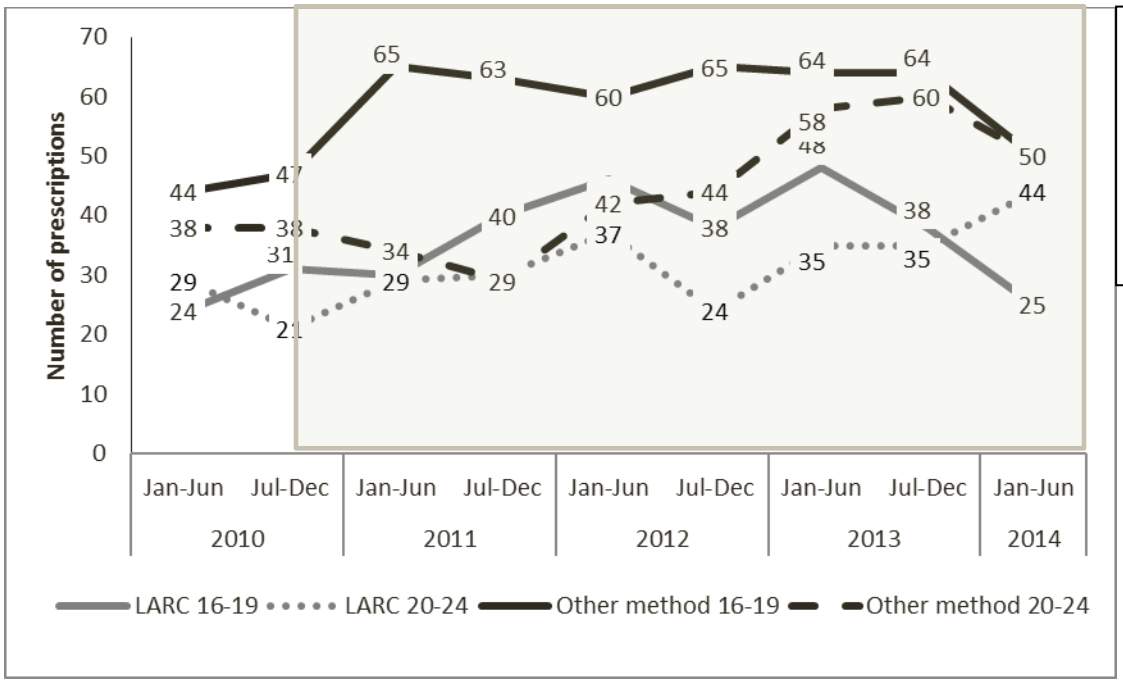
From before the program commenced (January-June 2010) to after commencement (July-Dec 2013) there was an overall increase (+46%) in the number of new contraceptive prescriptions, with a slight decline seen in the last 6 months (Figure 18: shaded area). The largest increase in contraceptive prescriptions between the before and after periods was among females aged 16-19 years (Table 8).

Table 8: Increases in the number of contraception prescriptions in females from before the Aboriginal SRH program commenced to after the program commenced, by age group

Age group (years)	% increase
16-19	50%
20-24	42%
Overall (16-24)	46%

The number and type of new contraception prescriptions are shown in Figure 19. Types of hormonal contraception were categorised as LARCs and 'other types'. LARCs include an implant (e.g. Implanon), an injectable (e.g. Depo-Provera), and an IUD. 'Other types' include OCPs, and Nuva ring.

Figure 19: Number of LARC* prescriptions versus other contraception prescriptions in females, by age group, January 2010- June 2014



New LARC prescription increased by 38% between the before and after periods

*LARC= Long acting reversible contraception

From before the program commenced (January-June 2010) to after commencement (July-Dec 2013) there was an overall increase among 16-24 year olds females in the number of LARC prescriptions (+38%), with the largest increase (+58%) seen among females aged 16-19 year (Table 9).

Table 9: Increases in the number of LARC and other contraception prescriptions in females, by age group

Contraception type, age group	% increase
LARC, 16-19 years	58%
LARC, 20-24 years	21%
LARC, all ages	38%
Other contraception, 16-19 years	46%
Other contraception, 20-24 years	58%
Other contraception, all ages	51%

3. Stocktake and most significant change

Most Significant Change

The following most significant change stories were captured as part of the end of program stocktake. Following a group review processes, these stories were nominated by the group of Aboriginal SRH workers and other program partners to demonstrate the impacts and successes of the program. The reason for the selection of each of these stories has been outlined following each story below.

1. A combined story from the perspectives of one of the PASH facilitators and a non-Aboriginal manager who attended 3 of the parent and young people education programs

Implemented by the LHD in partnership with a local ACCHS, the 'Aboriginal Parenting Sexual and Reproductive Project' (known as PASH) was a pilot program which was planned based on the recommendations following the 'Making Proud Choices Project' (implemented in the first half of this program). We identified a need for a parenting program that enabled parents to gain confidence and knowledge to have the 'difficult conversations' with their kids.

At the beginning of the 4 hour program, the body language of the participants was very observable as stiff and uncomfortable. One of the mother and daughter pairs were at first very 'shame' and were not happy about participating in the role plays. But as the program went on, the relaxed/comfortable environment helped the participants really open up and participate in the sessions. There were role play activities towards the end and the mother and daughter pair were happy to try once they received encouragement from the facilitators. They mentioned that it wasn't as hard as it seemed and that they would put it into practice once at home.

The facilitating groups training I received by Family Planning NSW (also part of the overall program) was really useful for me to be able to use techniques that were appropriate to the group such as sitting at the table and talking about the issues in a relaxed way rather than standing at the front and lecturing. According to the post session evaluations from the PASH Program there had been an increase in the parents/ carers discussions about SRH with their children.

This story highlights:

- The important role of appropriate facilitators to engage people in learning around SRH in a culturally and age appropriate way
- The use of evaluation to help assess project outcomes

- The benefits of the facilitator's involvement in workforce training which assisted with effective facilitation
- The benefits of an ongoing program to be able to understand community needs and have the time and resources to be able to meet those needs

2. *Female Aboriginal Sexual and Reproductive Health Worker from one of the participating ACCHS*

I had a young Aboriginal girl and her mum come to see me after she seen the doctor. She needed education on sexually transmissible infections (STIs) as she was just diagnosed with 2 of them. She also needed education and advice on contraception. I gave them the information they needed and after I finished the mum thanked me and said I explained it in simpler terms than the doctor and they both understood what I told them. Now I go out in the community once every three months to pick the young girl up for her contraceptive injection. I also pay for the injection out of my own pocket because the girl and her family are not able to afford it – a mere $24 a year is helping prevent an unplanned pregnancy. Her mum has told other community members that I'm her kid's nurse which makes me proud of what I do. But I always tell her I'm not a nurse I'm a Health Worker. I have also provided support to the girl's brother bringing him to the clinic now and then. I noticed he had tattoos and when I talk to him about them he said that he got it at home. When I heard that, I encouraged him to get tested for BBVs and he listened and got tested within a week. If my position was to be no longer funded, the girl could fall pregnant and boys like the brother will not be prompted to get BBV or STI tests when it's appropriate.

This story highlights:

- The holistic way Aboriginal SRH workers are providing support not just individuals with SRH needs, but to families with a variety of needs
- The role of the Aboriginal SRH worker to ensure health information is understood by patients
- The dedication of the Aboriginal SRH worker (both inside and outside the scope, hours and expectations of work) to ensure that health services are provided to their clients

3. *NSW Aboriginal Sexual Health Workforce Development Coordinator*

When the project started, I (along with the SRH coordination committee) observed a raw inexperienced workforce implementing a program that was set and structured with milestones, goals and outcomes in a highly stigmatised area to a marginalised population. We soon came to observe an enthusiastic and ambitious workforce that wants to make changes within the community and to a greater degree improve their professional practice. There have been obvious advancements by enrolling in ongoing training throughout the

period of the project. As a result of the last four years we now see a program that has reached great height in the Aboriginal community around trust, rapport, confidentiality and family unity. And as individuals we see confidence oozing out of every worker that will have a lasting effect on their Aboriginal communities for generations to come.

This story highlights:

- The growth of the Aboriginal SRH workers workforce skills and confidence
- Role of the Aboriginal SRH worker as an ongoing member of their community
- Impact of the workforce in the community and the ongoing effects it can have
- Aboriginal SRH workers have gained a sense of pride in the project and in their ability to support their communities in the topic area

4. Independent evaluations of specific components of the Aboriginal SRH program

Evaluation of the AH&MRC's SRH campaign "It's your choice have a voice- Rights, Respect, Responsibility"

Focus groups with young people showed that there was a high degree of recall of the campaign slogans and the key messages of 'Rights, Respect and Responsibility' among hip-hop participants. A number of young people named health workers, sexual health workers, the ACCHS, the sexual health clinic, drug and alcohol workers or youth workers, as a source of help beyond their family and friends. The evaluation identified the main impacts of the campaign to be: an increase in confidence levels, young people opening up about their lives, an increase in familiarity and linkages between young people and health workers, an increase in contact with sexual health services, inspiration amongst some young people to pursue music/ dance as a career, making healthy choice (e.g. quitting smoking and drugs), an increase in health workers awareness of other services and agencies, and some health workers were inspired and reinvigorated in their work through positive experience.

The analysis of the campaign's Facebook usage data showed that 1841 people 'liked' the campaign page, with increases of up to 50% traffic on the Facebook page throughout 3 week the campaign period.

Evaluation of training and education programs developed by Family Planning NSW for Aboriginal SRH workers

A preliminary evaluation of the 'Sexuality, Health and Facilitating Groups' training workshops showed that there was: a significant increase in knowledge and confidence and that participants felt the training would be useful for their job; an increase in their confidence in training content areas; participants were more appreciative of issues of

sexuality for people with disability; and the training was helpful in preparation for the AHMRC's "*It's your choice, have a voice - Rights, Respect, Responsibility"* campaign.

Evaluation of the Local health district's Aboriginal SRH campaigns and activities

The average age of participants who attended the 'Making Proud Choices' youth workshops was 17.5 years. The evaluation of the workshops showed significant improvements in participants' knowledge of sexual and reproductive health ($p<0.05$). The majority of young people surveyed reported using family and friends as a source of SRH information; and additionally, the majority of young people trusted information from family, friends and health pamphlets.

Aboriginal SRH program Facilitators

A number of factors were identified throughout the Aboriginal SRH program as being key facilitators of success. The main facilitators have been categorised as program planning, Aboriginal governance and involvement, and overall program support. Feedback on the facilitators to the program were gained through direct face-to-face evaluation feedback sessions with Aboriginal SRH workers, ACCHS and program partners.

Planning and engagement

There was a comprehensive planning framework for the Aboriginal SRH program which facilitated a strong foundation for engagement with participating ACCHSs. This included:

- The engagement of Aboriginal people and communities during the formative research projects and the program development stage.
- Stakeholder forums with local ACCHS (including CEOs), AH&MRC, NSW Health, LHDs and other key stakeholders to ensure that the strategies used by the program covered key issues and were suitable for implementation in local communities

Aboriginal governance and ownership

The involvement of a large number of Aboriginal people and Aboriginal organisations in the program meant that Aboriginal people had ownership and self-determination of the program, and contributed to the success of the program and the program evaluation. The involvement of Aboriginal people occurred at many levels through governance roles, as on the ground workers and communities, and as support roles.

Program Governance

The development and implementation of the Aboriginal SRH program was overseen by an Aboriginal advisory group, the NSW Aboriginal Sexual & Reproductive Health Advisory Committee (ASRHAC), a sub-committee of the ASHHAC.

Additionally the program implementation was supported through regular meetings and networks such as:

- Aboriginal STI HIV and Hepatitis Workers network, Aboriginal Hepatitis C Access Coordinators network and the Aboriginal Sexual & Reproductive Health Workers network.
- The program stocktake meetings that were held twice during the program allowed Aboriginal SRH workers and program partners to share ideas and to reflect on the challenges and successes of the program

Community-based Aboriginal SRH workers

Aboriginal SRH workers were based in local communities and employed through local ACCHS and LHDs. This local position enabled the workers to:

  - Use local knowledge to implement of appropriate SRH activities
  - Build and maintain strong relationships with community members and local organisations
  - Engage with people in a culturally and age appropriate ways and provide holistic care to individuals and families
  - Build trust and rapport with youth, and provide relevant information, ensuring it was understood.
  - Bridge the gaps that can exist between the health service and youth, such as such as stigma, and fear associated with STI screening.
- Some of the most significant change stories highlight that the dedication of the community-based Aboriginal SRH workers was essential to the successful of SRH activities and associated outcomes.

Overall program support

Support mechanism for the overall were embedded into the program design and consisted of state-wide positions, and the development of training programs for Aboriginal SRH workers at the Aboriginal Health College and Family Planning NSW.

State-wide support roles

The state-wide support roles at NSW Health, AH&MRC and Family Planning NSW aided the community-based Aboriginal SRH workers in the implementation and evaluation of local SRH activities, and provided overall operation support for program meetings, networks and training.

Training

Aboriginal SRH workers and other partners participated in training during the program which enabled them to build their skills sets and in turn enhanced their roles in the programs. For example;

  - The AHC courses contributed to qualifications for the Aboriginal SRH workers and directly relate to their roles
  - The Most significant Change training that was attended by several Aboriginal SRH workers and program partners was implemented and used to inform this evaluation

Challenges

Challenges were experienced throughout the Aboriginal SRH program, the main challenges have been categorised as operational, administrative, and human resources challenges.

These challenges were identified by Aboriginal SRH workers, program partners and the evaluation reference group during the final stocktake and during reference groups meetings and review of this evaluation report. Feedback on challenges experienced by participating ACCHS throughout the program was gained through direct face-to-face evaluation feedback sessions.

Operational challenges (planning, processes and implementation)

- Developing and maintaining trust in the local community, to enable the successful implementation of local programs
- Navigating gender-specific and cultural norms. For example, in some locations female workers found it challenging to engage with young Aboriginal men, and vice versa.

Administrative challenges

- Delays in signing partnership and contractual agreements resulted in delays in the implementation of the program.
- The staggered nature of funding and time-limited funding affected the ACCHS and Aboriginal SRH workers in being able to plan and implement activities. For example, ACCHS had to reapply for funding at the midpoint of the program, and also delays in funding resulted in the loss of qualified Aboriginal SRH workers. There was also a loss of workforce in the 6 month prior to the end of the program because of uncertainty of ongoing funding for the program.
- Within an ACCHS, the clinic staff were not always clear on the scope of activities allowed to be covered by program funds or the role of the workers. During informal feedback, several ACCHS noted that they had an expectation that the Aboriginal SRH workers would be involved in both health promotion and clinical duties, but this was not always the case.
- Some ACCHS had limited space to run activities within their building and Aboriginal SRH workers had to gain support from external organisations to find suitable locations.
- Some of the SRH activities used incentives as a way to attract and engage youth, particularly males. Common forms of incentives included sponsorship of sporting teams and prize draw competitions. The use of incentives meant additional costs which had to be covered by the ACCHS, however this was seen by ACCHS as a necessary step to engage with youth, particularly males.
- Some ACCHS were more committed or had more capacity to invest in network building and travel requirements for Aboriginal SRH workers, however not all ACCHS were able to absorb additional costs that were needed to run the SRH activities or maintain the Aboriginal SRH workers position.

Human resources

- Aboriginal SRH worker turnover and recruitment challenges were experienced, with 19 staff filling 8 funded positions over the life of the program and at times some ACCHSs were unable to fill roles.
- Since this was a new program, workers required time to figure out their roles, and to plan, develop and implement the SRH activities. Most of the workers had no prior experience in the role, or with SRH, and require may have required additional training and support.
- There were competing demands for an Aboriginal SRH workers time. The holistic and primary health care focus of ACCHSs means that sometimes workers need to work across disciplines, and be involved in whole of organisation activities to provide appropriate care for patients with complex needs.
- ACCHSs are often under-resourced and require staff to 'wear multiple hats' and work across teams, programs and positions. Implementation of SRH activities often involved whole teams, or workers may have also contributed to other activities outside of their programs. This can be a challenge for reporting on funding and KPIs. Involvement of additional AHWs or other ACCHS staff (e.g. drug and alcohol workers) was necessary for the roll out some of large health promotion drives, including the state-wide SRH campaign.
- Responsibility of one Aboriginal SRH worker and ACCHS to provide health promotion activities to a large geographical area had logistical and distance travel implications. One ACCHS gave feedback that sharing resources and roles between ACCHS is essential to cover large geographical areas.
- The role of health promotion and clinical services are delivered separately in ACCHS. The Aboriginal SRH program mainly focused on the health promotion and education role of Aboriginal SRH workers, with only a few ACCHS including clinical aspects in their initial program proposals, and some ACCHS expressed that the Aboriginal SRH workers duties did not fit with their initial expectations. As a result, some Aboriginal SRH workers positions did not have influence over the clinical setting. Additionally, the program did not involve a clinical training component for doctors or nurses in the ACCHS. Since health systems rely on GPs for clinical pathology testing and prescribing, a whole clinic approach, that is involvement of nurses and GPs, would be needed to provide comprehensive SRH services. However, some clinicians' developed confidence over time and encouraged Aboriginal SRH workers to become involved in testing. This evaluation project involved clinicians who attended the quality improvement feedback sessions, however there were delays in the initial delivery of QIP and the full impact on clinical services could not be assessed.

Quality Improvement Program (QIP) challenges

The quality improvement program aimed to support and enhance clinical aspects of SRH care at each of the participating ACCHS. The QIP was planned to run parallel to the

Aboriginal SRH program, however the following challenges were experienced during the implementation of the QIP.

- The quality improvement component of the Evaluation project which aimed to enhance clinical activity among all ACCHS staff had a late implementation due to: delays with the recruitment of the Kirby Institute project officer; the instalment of GRHANITE at some of the ACCHS; and the project initiation. As a result there were fewer QIP sessions than planned and the full impact of QIP sessions on testing could not be measured in this shorter time period.
- During the program, reproductive health clinical data (i.e. contraceptive prescriptions) was not available for feedback to ACCHS staff and Aboriginal SRH workers at the QIP sessions.

Evaluation strengths and limitations

In addition to the challenges experienced throughout the Aboriginal SRH program and QIP, there were strengths and limitations of the evaluation, as described below.

Strengths

- A framework for an evaluation of the Aboriginal SRH program was also built into the initial program design, which ensured that both the processes and outcomes of the Aboriginal SRH program were documented and could be used as evidence to support ongoing of future programs.
- Multiple methods and different data sources were utilised (triangulation). For example for many areas where improvement occurred, these were observed in two or three different data sources.
- The use of GHRANITE enabled some indicators to be tracked before and during the full period do the evaluation
- Also as GHRANITE is used in other ACCHS in NSW it enabled a comparison of clinical data from ACCHS in the SRH program to ACCHS not involved in the SRH program in the same time period, providing external control clinics. For example, although increases in attendance were observed in the ACCHSs participating in the SRH programs, these were not observed at NSW ACCHSs participating in the SHIMMER project.[63]
- The involvement of Aboriginal people in the development and implementation of the evaluation and interpretation of results has aided the progress of the evaluation project. This occurred through participation of Aboriginal people in the advisory group, the evaluation reference group, and as research investigators. The direct involvement of Aboriginal SRH workers, ACCHS staff and program partners was also essential to the evaluation progress. Examples of this involvement are listed below:
    - Aboriginal SRH workers and support workers from the AH&MRC played an integral role in the development and wording of the youth survey questions, and facilitated the focus testing with Aboriginal youth.

- Aboriginal SRH workers and other ACCHS staff recruited survey participants in ACCHS settings, and also participated in quality improvement sessions
- Aboriginal SRH workers, and ACCHS (including CEOs) provided feedback on the evaluation findings through a face to face meetings and email/phone communication, and were also involved in the dissemination of evaluation findings at conferences

Limitations

- The initial design for the evaluation project included survey collection with Aboriginal youth both before the program commenced and at the end of the program. However, the Kirby Institute project officer position was not recruited until after the program began meaning the before survey could not be conducted
- Despite the Aboriginal SRH program targeting Aboriginal youth aged 12-19 years (but also include older youth), the survey did not capture those aged less than 16 years. This was due to ethical requirements for parental consent for this age group which would not be gained easily.
- The methods used for the survey recruitment and the use of clinical data meant that the evaluation could only capture those who attended the ACCHS or ACCHS events. However other studies have shown that most young people in the community do attend primary care services in a year.
- Conducting evaluations of local activities:
    - Managing local project evaluations in agreement with ethics requirements, meant that workers needed more information about the process for ethics submissions, such as being aware of ethics deadlines and planning in advance by allocating time for submissions and approvals
    - Finding a balance between culturally appropriate evaluation methods and tools and obtaining robust convincible data
    - Local evaluations were not conducted for most of the SRH activities, which meant limitations in documentation of evaluations for stocktake reports

Conclusions/Discussion

The overall aim of the NSW Aboriginal Sexual and Reproductive Health Program was to increase access for Aboriginal adolescents to sexual and reproductive health programs. ACCHSs, largely through the Aboriginal SRH workers, demonstrated the ability to effectively implement and sustain health promotion activities in their communities. The locally-based Aboriginal SRH workers meant that the program was embraced by ACCHSs, communities had buy-in, and enabled the ACCHS to take ownership of the Aboriginal SRH program. The evaluation of the NSW Aboriginal Sexual and Reproductive Health Program, guided by the program's KPIs, showed there were improvements in the sexual and reproductive health literacy and access to services by young Aboriginal people, most likely associated with SRH program activities and a state-wide SRH campaign that was delivered by the AH&MRC.

The role of Aboriginal SRH workers

The Aboriginal SRH workers developed and implemented SRH promotion and education programs for young people in the communities where they were based. The repeated 'stocktake' revealed there was a high intensity and great diversity of local SRH activities run by Aboriginal SRH workers.

Access to sexual and reproductive health care and advice

Over the duration of the Aboriginal SRH program, health care access among young Aboriginal people attending the ACCHS increased by 28%, providing opportunities for a greater proportion of young people in the community to receive appropriate SRH care from the ACCHSs. Although not measured, the observed increase in health service attendance may have resulted in a greater uptake of clinical services in other areas of health. It is possible that these increases in attendance were due to other unrelated activities occurring at the services, but we believe this is unlikely as there was no similar increase at some NSW ACCHSs not participating in the Aboriginal SRH program.

A greater proportion of Aboriginal young people who had participated in SRH activities reported in the survey that they had accessed sexual and reproductive health information and sought advice about STIs, with information sourced from ACCHSs staff by more than half of the young people. These findings suggest the health promotion activities and presence of Aboriginal SRH workers provided young people with greater confidence to seek information on these topics from the local health service. In comparison, surveys of Australian secondary school students (only 2% of participants were Aboriginal), showed sexual health advice was most commonly sought from the internet.[49]

There was also a considerable increase in the number of young people tested for chlamydia by participating ACCHSs during the Aboriginal SRH program period which may have been due to more young people pro-actively attending the health service for STI testing in

response to information in health promotion activities. The survey showed that Aboriginal men and women who participated in program activities had higher levels of SRH literacy, particularly regarding chlamydia infection, recognising different STIs, and recommendations of an annual sexual health check-up. The increases in chlamydia testing may also be due to integration of STI testing into some of the SRH activities by the SRH workers, such as community health screenings, sporting membership, and prize draw competitions, with examples of this occurring at individual services (data not shown).

In the stocktake some ACCHS staff noted that the new Aboriginal SRH worker positions did not have influence over the clinical setting and the program did not have a whole clinic approach (i.e. nurses and GPs not involved). The QIP aimed to include all clinical staff in sessions to increase knowledge and awareness about STIs and develop internal systems for increased opportunistic screening when young people attend the service, and re-testing three months after a positive test. During the last year of Aboriginal SRH program funding period when QIP was introduced (1-3 sessions occurred at each service) there appeared to be an increase in opportunistic screening by clinic staff. However, additional QIP sessions are needed to see if these session result in further increases.

Contraception and condom use

The clinical data showed a 46% increase in the uptake of new prescriptions for contraception, including a 38% increase in LARCs (e.g. Implanon), and the youth survey showed a higher proportion of young women who participated in SRH activities reported currently using implants, and had higher knowledge of LARCs, compared to those who did not participate. In Australian general practices, LARCs are more often prescribed to women older than 35 years, [64] with OCPs[64] and condoms[65] traditionally being the most popular contraception in Australia among younger women. The findings from the evaluation suggest that LARCs have become a more prominent contraception choice for young people in the communities where the ACCHSs were located. Although the Aboriginal SRH program did not include specific training for clinicians on contraception, information on different contraceptive choices was provided at many activities for young people, for example in workshops with school and women's health events.

Discussing contraception choices with young people is important to allow them to make informed choices in regards to efficacy, side effects, and duration of available methods. The effectiveness of OCPs and condoms relies on consistent and proper use [65], whereas LARCs are effective for longer periods without administration [66] and are affordable for women through the Australian Medicare Pharmaceutical Benefits Scheme. [67] Feedback from some of the Aboriginal SRH workers suggests that more young people may opt for LARCs, particularly implanon, because it is inexpensive long term option compared to other methods. This evaluation also showed higher awareness of the effectiveness of emergency

contraception within 48 hours and availability from chemists without a prescription among women who participated in SRH activities than those who did not participate. However, we were unable to assess if this higher knowledge had any impact on emergency contraception use because the clinical contraception data did not separately capture the number of these prescriptions, and additionally because it is possible to obtain emergency contraception directly from chemists, these data would not be captured through clinic systems.

A higher proportion of youth who participated in SRH activities reported they accessed condoms from ACCHSs rather than other locations compared to those that had not participated. These findings contrast with results from the GOANNA survey (involving Aboriginal youth) which found that chemists and stores were the more common places for Aboriginal youth to access condoms[8]. This may be a reflection of the SRH activities that placed emphasis on improving access to condoms for young people, such as the development of condom resources and condom wallets, ensuring ACCHSs had free condoms available, and activities that encouraged health seeking behaviours in young people. Ideally greater access to condoms and improved knowledge leads to increased use of condoms as demonstrated in other interventions.[9] The survey suggested that among sexually active females, who had participated in SRH activities, there was higher levels of condom use at last sex (53% vs 34%) compared to those who did not participate in activities, however the difference was not quite statistically different. Increases in condom use with new partners, which was one of the program KPIs, could not be measured in the youth survey due to the small sample size related to this KPI.

One of the strengths of the evaluation was the compilation of various data sources (survey, clinic data, and a stocktake of activities). The higher levels of information seeking from ACCHSs among survey participants who reported being involved in SRH activities is supported by clinical data where there was a significant increase in the health seeking behaviour. The high levels of self-reported LARC use in the survey, particularly among those who participated in SRH activities, are accompanied by an increase in the new LARC prescriptions shown the clinic data.

Capacity building for Aboriginal SRH workers and ACCHS

The Aboriginal SRH program has resulted in improvements in Aboriginal SRH worker's capacity, through workforce training, and also in building Aboriginal SRH worker's skills and confidence. This was recognised by Aboriginal SRH workers and program partners during program stocktake meetings, and has been demonstrated through the formal and informal education courses undertaken by the Aboriginal SRH workers throughout the program, the wide range of SRH activities conducted, involvement of Aboriginal SRH workers in conference presentations (oral and posters), and the 'most significant change' stories which demonstrate improvements in workforce skills and confidence. ACCHS capacity has

improved too, through the team approach taken at many ACCHS for planning and implementing SRH activities; the strengthened relationships with youth in the community, as demonstrated by the high proportion of Aboriginal people reporting they seek advice and SRH information from the ACCHS; and between local organisations (e.g. schools, youth services), as demonstrated by the range of activities documented in the stocktake.

The evaluation demonstrated the Aboriginal Sexual and Reproductive health program resulted in increases in attendance, increases in access to STI testing and contraception, and greater advice seeking by young Aboriginal people at the participating ACCHSs; and higher knowledge of contraceptive and chlamydia among young Aboriginal people who participated in SRH activities than those that did not. These improvements can be attributed to the funded Aboriginal SRH workers who were based at ACCHS and associated program activities (health promotion and social marketing). The delivery of these activities was supported by strong planning and ongoing consultation, Aboriginal governance, support from program partners and professional development and capacity building.

Recommendations

1. **The findings from this evaluation suggests that there is a strong justification to support the continuation of a sexual and reproductive health promotion program to address the sexual and reproductive health needs of Aboriginal youth by utilising a community-based health promotion approach, involving ACCHS and a dedicated locally employed Aboriginal SRH worker to implement SRH activities and education.**
    a. This approach has been shown to strengthen local implementation of SRH activities through: use of local knowledge and collaboration with local organisations such as schools and meant that there was local-engagement with Aboriginal youth in the target age group. The results of this approach were an increase in access to health services, including access to SRH care, and improvements in the SRH literacy of Aboriginal youth who participated in SRH activities.
    b. Such programs should be embedded with mechanisms for continuity and sustainability so that the positive effects of the program can be maintained, and the risk of losing the skilled Aboriginal SRH workforce between short funding cycles is minimised.

2. **Future Aboriginal SRH programs should encompass a holistic, clinic-wide approach so that the benefits of health promotion and improved health literacy of Aboriginal youth can be complemented by SRH clinical services. Support for a clinic-wide approach could include:**
    a. Delivery of sexual and reproductive health clinical training and education to a wide range of staff, including clinicians, nurses and Aboriginal health workers
    b. Reproductive health to be integrated into the role of sexual health workers and other services
    c. Explore mechanisms to support all clinic staff (e.g. nurses and Aboriginal Health workers) to have a broader role in sexual and reproductive health, including pathology and prescriptions (may involve partnerships with local pharmacies)
    d. Identifying a practice champion to promote change within the clinic
    e. Increase access to software options which enable prompts and alterations to clinical data systems

3. **Dedicated funding to cover logistical costs for individual ACCHS and Aboriginal SRH workers to develop innovative health promotion activities that attract Aboriginal youth to SRH services, particularly male clients that were shown to access the ACCHS and SRH services less often than females.**
    a. Examples of innovative activities include funding for sponsorship of sports clubs, incentive or prize draw activities, text messaging

b. There should also be continued support for Aboriginal SRH workers to conduct local evaluations of innovative activities to assess their impact (see recommendation 5)

4. **Resources and training materials that were developed as part of this program could be adopted by other ACCHSs, Aboriginal health workers and local organisations, so that the outcomes of this program and its activities may be sustained.**
    a. These resources include those developed by individual Aboriginal SRH workers, ACCHS, and state-wide partner organisations, such as SRH handouts/ tools, campaign materials, examples of effective SRH activities

5. **There should be ongoing support for the monitoring and evaluation of Aboriginal SRH programs and clinical service provision, including local activity evaluations and monitoring of local clinical service delivery; in order to:**
    a. Monitor staff efforts to progress towards Key Performance Indicators
    b. Have on-going SRH quality improvement programs, using ACCHS clinical data, to promote best practice, sustain change and to keep SRH on clinic agendas, and a dedicated role to carry out quality improvement activities
    c. Assess Aboriginal youth's SRH knowledge and behaviour through repeat surveys, similar to the GOANNA survey.

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Appendices

Appendix 1: NSW Health Aboriginal Sexual and Reproductive Health Program- Key Performance Indicators

OVERALL AIM:

Increase access for Aboriginal adolescents to sexual and reproductive health programs

Specific Aims:

1. Increased age-appropriate sexual and reproductive health literacy among Aboriginal young people

1.1 Number of target group attending sexual and reproductive health education programs

1.2 Changes in knowledge and literacy amongst target group attending education programs

1.3 Changes in knowledge and literacy amongst target group attending services

1.4 Successful integration of various local services, including schools, into project activities in order to facilitate integration of programs for the target group

2. Increased self-reported confidence and intention among Aboriginal young people in discussing sexual and reproductive health issues with peers and sexual partners

2.1 Number of target group attending sexual and reproductive health education programs

2.2 Changes in reported confidence and intentions amongst target group attending education programs

2.3 Changes in reported confidence and intentions amongst target group attending services

2.4 Successful integration of various local services, including schools, into project activities in order to facilitate integration of programs for the target group

3. Increased proportion of Aboriginal young people accessing sexual and reproductive health care

3.1 Number of target group attending services compared to overall client numbers (measure percentage increase of young people attending)

3.2 Pregnancy related advice and services provided, including contraception

3.3 Referral pathways (in and out of services)

3.4 Demographic factors associated with service access (including any changes due to local program activities)

4 Increased knowledge of pregnancy choices, including access to and use of contraception and pregnancy testing among Aboriginal young people

4.1 Number of target group attending services compared to overall client numbers (measure percentage increase of young people attending)

4.2 Pregnancy related advice and services provided, including contraception.

4.3 Referral pathways (in and out of services)

4.4 Demographic factors associated with service access (including any changes due to local program activities

4.5 Number of target group attending sexual and reproductive health education programs.

4.6 Changes in reported confidence and intentions amongst target group attending education programs

4.7 Changes in reported confidence and intentions amongst target group attending services

5. Increased use of condoms with new partners among sexually-active Aboriginal young people

5.1 Number of target group using condoms with new partners.

6. Reduced sexually transmissible infections (STIs), including HIV, among Aboriginal young people

6.1. Diagnostic tests for STIs/BBVs (including percentage of uptake of testing offered)

6.2 Number of positive and negative test results

6.3 Extent of follow up of positive results as well as care and management activities

Appendix 2: Detailed tables for all survey variables

Table 1: Overview age and sex

Mean age	19.7
Sex	
Male	119 (50.4)
Female	117 (49.6)

Table 2: Demographic overview of survey respondents

	Total n (%)	Female n (%)	Male n (%)
Socio demographics			
Employment	68 (22)	31 (21)	37 (23)
School	22 (7)	11 (7)	11 (7)
TAFE	3 (1)	2 (1)	1 (1)
University	7 (2)	3 (2)	4 (2)
Working and studying	78 (25)	39 (26)	39 (24)
Working	66 (21)	33 (22)	33 (20)
Not working or studying	68 (22)	31 (21)	37 (23)
Sexual identity			
Straight	225 (91)	113 (93)	112 (90)
Gay/ Lesbian	11 (4)	5 (4)	6 (5)
Bisexual	9 (4)	4 (3)	5 (4)
Other	1 (0)	-	1 (1)
Educational attainment			
Completed Year 10	147 (60)	70 (57)	77 (62)

	Total n (%)	Female n (%)	Male n (%)
Completed Year 11	42 (17)	17 (14)	25 (20)
Completed Year 12	47 (19)	30 (25)	18 (15)
Completed Diploma	5 (2)	3 (2)	2 (2)
Completed University (not a Diploma)	4 (2)	-	2 (2)
Relationship/Family status			
Relationship status			
Single	70 (57)	143 (58)	73 (58)
In a relationship/ Married	47 (38)	95 (38)	48 (38)
Widowed/ Divorced/ Separated	6 (5)	10 (4)	4 (3)
Pregnancy history (Females)			
None	70 (64)	-	-
Once	23 (21)	-	-
More than once	16 (15)	-	-
Have children			
Yes	35 (51)	65 (34)	30 (24)
No	34 (49)	127 (66)	93 (76)
Number of children			
One child	19 (54)	34 (53)	15 (52)
Two children	12 (34)	22 (34)	10 (34)
More than two	4 (11)	8 (13)	4 (14)
Sexual History			
Age at first oral sex			
Never had oral sex	35 (30)	63 (27)	28 (24)

	Total n (%)	Female n (%)	Male n (%)
16 years or less	50 (42)	112 (48)	62 (53)
17 years	15 (13)	35 (15)	20 (18)
18 years	10 (8)	17 (7)	7 (6)
19 years	3 (2)	3 (1)	-
20 years	3 (2)	3 (1)	-
21 years	2 (2)	2 (1)	-
Age at first vaginal sex			
I have never had vaginal sex	21 (18)	36 (15)	15 (13)
16 years or less	60 (50)	124 (52)	64 (54)
17 years	23 (19)	53 (22)	30 (25)
18 years	11 (9)	18 (8)	7 (6)
19 years	-	2 (1)	2 (2)
20 years	4 (3)	4 (2)	-
21 years	-	-	-
22 years	-	1 (0)	1 (1)
Other demographics			
Imprisonment			
No	108 (95)	195 (85)	87 (74)
Yes, in the last 12 months	4 (4)	19 (8)	15 (13)
Yes, more than 12 months ago	2 (2)	18 (8)	16 (14)
Ever paid (someone else) for sex			

	Total n (%)	Female n (%)	Male n (%)
Yes	3 (3)	6 (3)	3 (3)
No	103 (95)	206 (93)	103 (90)
Refused	2 (2)	10 (5)	8 (7)
Ever been paid for sex			
Yes	3 (3)	6 (3)	3 (3)
No	103 (95)	206 (93)	103 (90)
Refused	2 (2)	10 (5)	8 (7)

Table 3: Participation in program activities, by sex

	Female (n=117) n (%)	Male (n=119) n (%)	Total (n= 236) n (%)
Participated in at least one activity in the last 12 months	73 (62)	82 (69)	155 (65)
Did not participate in activity	44 (38)	37 (31)	81 (34)
Type of activity			
Hip hop	24 (33)	20 (24)	44 (28)
Camp	15 (21)	13 (16)	28 (23)
Sports	8 (11)	28 (34)	36 (23)
School	26 (37)	33 (40)	59 (38)
Community event	36 (49)	38 (46)	74 (48)
One-on-one discussions	17 (23)	8 (10)	25 (16)
Other	2 (3)	2 (2)	4 (3)

Table 4: Access to reproductive health care, by participation in program activities and sex

	Females			Males		
	Activity^ n (%)	None n (%)	P	Activity^ n (%)	None n (%)	p
Have you had a talk about prevention/contraception with someone before?						
	n=63	n=38		n=74	n=33	
Yes	49 (78)	28 (74)	0.640	44 (59)	11 (33)	0.013
No/Don't know	14 (22)	10 (26)	0.640	30 (41)	22 (67)	0.013
Who did you have this talk with about prevention/contraception?						
	n=73	n=44		n=82	n=37	
Doctor or Nurse at the AMS	33 (45)	11 (25)	0.029*	10 (12)	1 (3)	0.098
Health Worker at the AMS	24 (33)	2 (5)	<0.001*	15 (18)	1 (3)	0.021*
Staff at another health service	6 (8)	7 (16)	0.200	11 (13)	3 (8)	0.406
Family members	20 (27)	11 (25)	0.776	22 (27)	6 (16)	0.206
Partner	5 (7)	6 (14)	0.223	5 (6)	5 (14)	0.177
Were you satisfied with the talk you had about prevention/contraception?						
	n=40	n=12		n=22	n=1	
Very satisfied /Satisfied	40 (100)	11 (92)	0.065	20 (91)	1 (100)	0.752
Neither/ Not satisfied	0 (0)	1 (8)	0.065	2 (9)	0 (0)	0.752

	Females			Males		
	Activity^ n (%)	None n (%)	P	Activity^ n (%)	None n (%)	p
Do you feel comfortable to talk to your FRIENDS about contraception/prevention?						
	n=62	n=38		n=74	n=33	
Yes	41 (66)	25 (66)	0.667	38 (51)	11 (33)	0.224
No	13 (21)	6 (16)	0.667	16 (22)	10 (30)	0.224
Sometimes	8 (13)	7 (18)	0.667	20 (27)	12 (37)	0.224

^Activity in the last 12 months

Table 5: Self-reported confidence and intention discussing sexual and reproductive health issues, by participation in program activities and sex

	Females			Males		
	Activity^ n (%)	None n (%)	P	Activity^ n (%)	None n (%)	p
Comfortable to talk to friends about sex (protection, relationship advice, safe sex)						
	n=62	n=38		n=72	n=33	
Yes	40 (65)	27 (71)	0.282	45 (63)	16 (48)	0.134
No	12 (19)	3 (8)	0.282	10 (14)	10 (30)	0.134
Sometimes	10 (16)	8 (21)	0.282	17 (23)	7 (22)	0.134
Comfortable to talk to family about sex (protection, relationship advice, safe sex)						
	n=64	n=38		n=74	n=34	
Yes	20 (31)	8 (21)	0.536	30 (41)	5 (15)	0.028*
No	31 (48)	21 (55)	0.536	26 (35)	18 (53)	0.028*
Sometimes	13 (21)	9 (24)	0.536	18 (24)	11 (32)	0.028*
If you wanted to have sex, could you tell the other person to use a condom?						
	n=64	n=38		n=74	n=34	
Yes	50 (78)	31 (82)	0.874	57 (80)	25 (74)	0.692
No	9 (14)	4 (10)	0.874	10 (14)	5 (12)	0.692
Sometimes	5 (8)	3 (8)	0.874	5 (6)	4 (14)	0.692
Have you had a talk about prevention/contraception with someone before?						
	n=64	n=38		n=74	n=34	
Yes	49 (78)	28 (73)	0.640	11 (33)	49 (78)	0.013*
No/Don't Know	14 (22)	10 (27)	0.640	22 (67)	14 (22)	0.013*

^Activity in the last 12 months

Table 6: STI testing and advice, by participation in program activities and sex

	Females			Males		
	Activity^ n (%)	None n (%)	P	Activity^ n (%)	None n (%)	p
Which of the following have you ever used for advice about STIs?						
	n=73	n=44		n=82	n=37	
Never sought advice[a]	7 (10)	10 (23)	0.051	17 (21)	18 (49)	0.002
At the Aboriginal Medical Service (AMS)[a]	42 (58)	12 (27)	0.001	25 (30)	9 (24)	0.491
Another Aboriginal Medical Service (AMS)[a]	6 (8)	3 (7)	0.783	5 (6)	1 (3)	0.433
Another health service[a]	9 (12)	8 (18)	0.384	9 (11)	5 (14)	0.691
School[a]	12 (16)	9 (20)	0.583	21 (26)	9 (24)	0.881
Family member[a]	16 (22)	6 (14)	0.267	16 (20)	4 (11)	0.240
Friends[a]						
Internet[a]	9 (10)	6 (14)	0.500	6 (7)	5 (14)	0.280
Sexual health workshops/campaign[a]	13 (18)	0 (0)	0.003	5 (6)	2 (5)	0.882
Have you ever had a chlamydia test						
	n=64	n=38		n=72	n=33	
Yes, in the last year	23 (36)	14 (37)	0.932	17 (24)	9 (27)	0.560
Yes, more than a year ago	9 (14)	7 (19)	0.932	10 (14)	4 (12)	0.560
No	28 (44)	15 (39)	0.932	41 (57)	20 (61)	0.560
I don't know	4 (6)	2 (5)	0.932	4 (5)	0 (0)	0.560

^Activity in the last 12 months; a= Number answering yes

	Females			Males		
	Activity^ n (%)	None n (%)	P	Activity^ n (%)	None n (%)	p
Where did you have your last chlamydia test? (Among those who had a chlamydia test)						
	n=32	n=21		n=27	n=13	
At the Aboriginal Medical Service (AMS)	26 (81)	13 (62)	0.103	12 (44)	6 (46)	0.551
Another Aboriginal Medical Service (AMS)	2 (6)	0 (0)	0.103	1 (4)	0 (0)	0.551
Local doctor at a General Practice Clinic	2 (6)	6 (29)	0.103	4 (15)	2 (15)	0.551
Family planning clinic	1 (3)	0 (0)	0.103	1 (4)	0 (0)	0.551
Sexual Health clinic	1 (3)	2 (10)	0.103	3 (11)	3 (23)	0.551
Have you had any of these STIs before?						
	n=73	n=44		n=82	n=37	
Chlamydia [a]	3 (4)	1 (2)	0.596	0 (0)	0 (0)	0
Gonorrhoea [a]	9 (12)	0 (0)	0.015	3 (4)	0 (0)	0.239
Herpes [a]	5 (7)	0 (0)	0.076	5 (6)	0 (0)	0.125
Syphilis [a]	4 (5)	0 (0)	0.114	4 (5)	0 (0)	0.172
Trichomoniasis (Trich)[a]	2 (3)	0 (0)	0.268	1 (1)	0 (0)	0.500
HPV [a]	3 (4)	0 (0)	0.173	1 (1)	0 (0)	0.500
Genital warts [a]	7 (10)	0 (0)	0.034	2 (2)	2 (5)	0.406

^Activity in the last 12 months; a= Number answering yes

Table 7: Pap test and HPV vaccine uptake among females, by participation in program activities

	Females		
	Activity^ n (%)	None n (%)	P
Have you ever had a pap test?			
	n=64	n=37	
Yes, in the last two years	29 (45)	16 (43)	0.662
Yes, more than two years ago	10 (16)	3 (8)	0.662
Never tested	20 (31)	14 (38)	0.662
I don't know	5 (8)	4 (11)	0.662
Have you had the HPV vaccine, which is also called the cervical cancer vaccine?			
	n=54	n=35	
Yes	37 (69)	22 (63)	0.581
No	17 (31)	13 (37)	0.581
Where did you have the vaccine? (Among those who had the vaccine)			
	n=40	n=25	0.098
At school	15 (47)	18 (72)	0.098
At the Aboriginal Medical Service (AMS)	17 (45)	7 (28)	0.098
Another health service	3 (8)	0 (0)	0.098

^Activity in the last 12 months

Table 8: STI recognition, by participation in program activities and sex

	Females			Males		
	Activity^ n (%)	None n (%)	P	Activity^ n (%)	None n (%)	p
Have you heard of the following diseases						
	n=73	n=44		n=82	n=37	
Chlamydia [a]	66 (90)	38 (86)	0.500	69 (84)	27 (73)	0.153
Gonorrhoea [a]	49 (67)	30 (68)	0.906	56 (68)	21 (57)	0.223
HIV [a]	55 (75)	36 (82)	0.414	63 (77)	25 (68)	0.287
Herpes [a]	52 (71)	34 (77)	0.473	52 (71)	59 (72)	0.436
HPV [a]	26 (36)	17 (39)	0.743	29 (35)	4 (11)	0.006*
Syphilis [a]	41 (56)	33 (75)	0.041*	44 (54)	17 (46)	0.436
Trichomoniasis [a]	10 (14)	9 (20)	0.337	19 (23)	1 (3)	0.006*
None	2 (3)	4 (9)	0.131	6 (7)	7 (19)	0.060
Mean number STIs recognised	3.5	3.7	0.059	3.6	2.8	0.045*

^Activity in the last 12 months; a= Number and proportion answering yes

Table 9: STI and contraception knowledge, by participation in program activities and sex

	Females			Males		
	Activity^ n (%)	None n (%)	P	Activity^ n (%)	None n (%)	p
STI and contraception knowledge						
	n=71	n=44		n=80	n=37	
Can STIs be passed on from mother to baby? [b]	50 (70)	25 (57)	0.326	44 (55)	23 (62)	0.758
Can a person have an STI without any symptoms? [b]	52 (72)	23 (52)	0.068	47 (59)	13 (35)	0.039
Does chlamydia only affect women? [b]	53 (74)	27 (61)	0.023	45 (56)	16 (46)	0.498
Do condoms prevent people from getting some STIs? [b]	53 (75)	27 (61)	0.329	49 (61)	21 (58)	0.914
Can you get an STI from having anal sex? [b]	52 (73)	24 (55)	0.107	48 (59)	22 (61)	0.812
Can an STI stop women from having babies in the future? [b]	49 (68)	21 (48)	0.089	41 (51)	17 (47)	0.855
Should sexually active youth have a sexual health check up every year? [b]	66 (92)	34 (77)	0.019	63 (78)	25 (69)	0.282
Do you know what HPV is? [b]	26 (36)	12 (27)	0.143	22 (28)	6 (17)	0.449
If a woman misses taking contraceptive pills for two or three days in a row are the pills still effective? [b]	41 (60)	23 (56)	0.277	29 (39)	12 (38)	0.862
Can you get the Emergency Contraceptive Pill (morning after pill) at a chemist? [b]	55 (81)	23 (56)	0.002 *	36 (48)	14 (44)	0.886
^Activity in the last 12 months; b= Number and proportion answering correctly						

	Females			Males		
	Activity^ n (%)	None n (%)	P	Activity^ n (%)	None n (%)	p
Does the Emergency Contraceptive Pill (morning after pill) work if taken 2 days after having unprotected sex? [b]	28 (41)	3 (7)	0.001*	14 (19)	5 (16)	0.912
If you are under 18 do you need parental consent to get contraceptives (i.e. pill, condoms etc.)? [b]	6 (9)	2 (5)	0.002*	10 (13)	4 (13)	0.886
Do you know what an intrauterine device (IUD) is?[b]	32 (51)	12(32)	0.168	16 (21)	3 (10)	0.392

^Activity in the last 12 months; b= Number and proportion answering correctly

Table 10: Knowledge of contraception choices, by participation in program activities and sex

	Females			Males		
	Activity^ n (%)	None n (%)	P	Activity^ n (%)	None n (%)	p
Have you ever HEARD of any of the following?						
Withdrawal [a]	n=62	n=37		n=71	n=33	
	54 (87)	31 (84)	0.647	58 (82)	28 (85)	0.692
Abstinence [a]	n=59	n=36		n=72	n=32	
	50 (85)	27 (75)	0.240	52 (72)	22(69)	0.718
Condoms for pregnancy prevention [a]	n=63	n=37		n=71	n=34	
	62 (98)	37 (100)	0.441	62 (87)	33 (97)	0.112
Condoms for STI prevention [a]	n=63	n=37		n=74	n=34	
	62 (98)	35 (95)	0.280	62 (86)	34 (100)	0.022*
Contraceptive pills [a]	n=63	n=38		n=71	n=34	
	60 (95)	38 (100)	0.172	51 (72)	29 (85)	0.130
Emergency Contraceptive Pill [a]	n=59	n=38		n=71	n=33	
	51 (86)	32 (84)	0.760	46 (65)	24 (73)	0.422
Depo Provera [a]	n=59	n=34		n=64	n=33	
	46 (78)	24 (71)	0.427	36 (56)	12 (36)	0.063
Implanon [a]	n=63	n=38		n=68	n=32	
	58 (92)	30 (79)	0.057	46 (68)	18 (56)	0.268
IUD [a]	n=61	n=34		n=70	n=32	
	41 (67)	15 (44)	0.028	19 (27)	4 (13)	0.101

^Activity in the last 12 months; a= Number and proportion answering yes

	Females			Males		
	Activity^ n (%)	None n (%)	P	Activity^ n (%)	None n (%)	p
Diaphragm [a]	n=59	n=36		n=64	n=30	
	39 (66)	26 (72)	0.534	27 (42)	13 (43)	0.917
Vaginal Ring [a]	n=56	n=37		n=65	n=39	
	37 (66)	24 (65)	0.207	21 (32)	13 (45)	0.248

^Activity in the last 12 months; a= Number and proportion answering yes

Table 11: Contraception use among females, by participation in program activities

	Activity^ n (%)	None n (%)	P
Have YOU ever USED any of the following methods to prevent STIs or pregnancy			
Withdrawal (pulling out)	n=56	n= 36	
	33 (36)	22 (24)	0.835
Condoms	n= 60	n= 38	
	9 (9)	7 (7)	0.655
Anal sex	n= 51	n=36	
	12 (14)	8 (9)	0.887
Oral sex	n= 53	n= 36	
	26 (29)	19(21)	0.730
Contraceptive pills	n= 57	n= 37	
	35 (37)	20 (21)	0.480
Emergency contraceptive pill (morning after pill)	n= 53	n= 36	
	16 (18)	12 (13)	0.754
Contraceptive injection (Depo Provera, 'the needle')	n= 52	n=36	
	14 (16)	8 (9)	0.617
Contraceptive implants (Implanon, 'the rod')	n= 55	n= 37	
	33 (36)	14 (15)	0.105
IUD - intrauterine device (Mirena)	n= 53	n= 36	
	9 (10)	3 (3)	0.241
Diaphragm	n= 51	n= 36	
	5 (6)	3 (3)	0.815
Vaginal ring (nuva ring)	n= 51	n= 35	0.847
	5 (6)	3 (3)	

^Activity in the last 12 months

	Activity^ n (%)	None n (%)	P
Breastfeeding	n= 50	n= 36	
	7 (8)	6(7)	0.733
Are you CURRENTLY USING any of the following methods to prevent STIs or pregnancy?			
Withdrawal (pulling out)[a]	n= 46	n= 34	
	14 (30)	10 (29)	0.921
Condoms[a]	n= 59	n= 36	
	39 (66)	19 (53)	0.196
Anal sex	n= 44	n= 35	
	6 (13)	3 (9)	0.482
Oral sex [a]	n= 45	n= 35	
	12 (27)	9 (25)	0.923
Contraceptive pills [a]	n= 49	n= 36	
	18 (37)	12 (33)	0.746
Emergency contraceptive pill (morning after pill) [a]	n= 46	n= 34	
	8 (17)	2 (6)	0.124
Contraceptive injection (Depo Provera, 'the needle') [a]	n= 46	n= 35	
	4 (9)	2 (6)	0.230
Contraceptive implants (Implanon, 'the rod') [a]	n= 51	n= 34	
	26 (51)	5 (15)	0.001*
IUD - intrauterine device (Mirena) [a]	n= 47	n= 34	
	5 (10)	2 (6)	0.452
Diaphragm [a]	n= 46	n= 34	
	3 (7)	2 (6)	0.907

^Activity in the last 12 months; a= Number and proportion answering yes

	Activity^ n (%)	None n (%)	P
Vaginal ring (nuva ring) [a]	n= 46	n= 34	
	3 (7)	1 (3)	0.468
Breastfeeding [a]	n= 44	n= 32	
	2 (5)	1 (3)	0.754
Have you missed pills in the last month?			
Yes	6 (33)	3 (25)	
Currently using at least one form of contraception [b]			
	n=73	n=44	
Yes	49 (67)	27 (61)	0.527
No/Don't know	24 (33)	17 (39)	

^Activity in the last 12 months; a= Number and proportion answering yes; b=Currently using one or more of the following methods of contraception; withdrawal, condoms, anal sex, oral sex, contraceptive pills, emergency contraceptive pill, contraceptive injections, contraceptive implants, intrauterine device, diaphragm, vaginal ring or breastfeeding

Table12: Contraception use among males, by participation in program activities

	Males		
	Activity^ n (%)	None n (%)	P
Have YOU ever USED any of the following methods to prevent STIs or pregnancy			
Withdrawal (pulling out)[a]	n=71	n=32	
	47 (66)	18 (56)	0.333
Condoms [a]	n=72	n=33	
	58 (81)	32 (97)	0.026
Anal sex [a]	n=64	n=31	
	18 (28)	12 (39)	0.298
Oral sex [a]	n=67	n=32	
	38 (57)	21 (66)	0.398
Are you CURRENTLY USING any of the following methods to prevent STIs or pregnancy?			
Withdrawal (pulling out) [a]	n=66	n=30	
	37 (56)	14 (47)	0.393
Condoms [a]	n=70	n=33	
	48 (67)	24 (73)	0.668
Anal sex [a]	n=62	n=31	
	11 (18)	8 (26)	0.363
Oral sex [a]	n=62	n=33	
	29 (47)	16 (52)	0.660
Currently using at least one form of contraception [b]			
	n=82	n=37	
Yes	47 (57)	27 (73)	0.103
No/don't know	35 (43)	10 (27)	

^Activity in the last 12 months; a= Number answering yes; b= currently using one or more of the following methods of contraception; withdrawal, condoms, anal sex or oral sex.

Table 13: Sexual behaviour and condom use among sexually active survey respondents, by participation in program activities and sex

	Females			Males		
	Activity^ n (%)	None n (%)	P	Activity^ n (%)	None n (%)	p
Last person had sex with among sexually active survey respondents						
	n=60	n=37		n=71	n=34	
Someone you just met for the first time	1 (2)	1 (3)	0.446	6 (9)	3 (9)	0.949
Someone you know (who is not your girlfriend/ boyfriend/partner)	16 (27)	11 (31)		24 (34)	10 (31)	
Girlfriend	4 (7)	0 (0.00)		38 (54)	20 (59)	
Boyfriend	39 (65)	24 (67)		3 (4)	1 (3)	
Number of people had vaginal and/or oral sex with in the last 12 months among sexually active survey respondents						
	n=60	n=37		n=66	n=34	
1 persons	32 (53)	21 (57)	0.690	28 (42)	15 (44)	0.871
More than one person	28 (47)	16 (43)		38 (58)	19 (56)	
Consistency of condom use in last 12 month among sexually active survey respondents						
	n=58	n=35		n=68	n=34	
Always	24 (41)	5 (23)	0.143	25(37)	12 (35)	0.272
Often	8 (14)	7 (20)		10 (15)	4 (12)	
Sometimes	9 (16)	3 (9)		18 (26)	5 (15)	
Rarely	6 (10)	9 (26)		6 (9)	8 (24)	
Never	11 (19)	8 (23)		9 (13)	5 (15)	

^Activity in the last 12 months

	Females			Males		
	Activity^ n (%)	None n (%)	P	Activity^ n (%)	None n (%)	p
Condom use at last sex among sexually active survey respondents						
	n=60	n=36		n=66	n=34	
Yes	32 (53)	13 (36)	0.102	33 (50)	17 (50)	1.00
No	28 (47)	23 (64)		33 (50)	17 (50)	
Reason for not using condom use at last sex among sexually active survey respondents who did not use a condom at last sexual encounter						
	n=28	n=21		n=40	n=15	
Didn't have a condom	6 (21)	5 (23)	0.662	18 (45)	6 (40)	0.393
I am in a steady relationship	9 (32)	10 (45)		16 (40)	6 (40)	
Too embarrassed /shame to ask	1 (4)	0 (0)		0 (0)	0 (0)	
I was drunk or high when I had sex	1 (4)	2 (9)		4 (10)	1 (7)	
I wanted to fall pregnant	1 (4)	1 (5)		0 (0)	1 (7)	
My partner doesn't like condoms	4 (14)	3 (14)		0 (0)	0 (0)	
It was not necessary	5 (18)	1 (5)		0 (0)	1 (7)	
Other	1 (4)	0 (0)		2 (5)		

^Activity in the last 12 months; a= Number and proportion answering yes

	Females			Males		
	Activity^ n (%)	None n (%)	P	Activity^ n (%)	None n (%)	p
Where do you get condoms from?[b]						
	n=60	n=37		n=73	n=33	
I never use condoms	7 (12)	8 (22)	0.188	7 (10)	4 (12)	0.748
Health Services	41 (68)	8 (22)	<0.001 *	29 (40)	13 (38)	0.841
Friends and family	3 (5)	2 (6)	0.930	8 (11)	3 (9)	0.718
Buy condoms	5 (8)	13 (35)	0.001*	17 (24)	11 (32)	0.341
Sexual partner	9 (15)	4 (11)	0.556	3 (4)	0 (0)	0.227

^Activity in the last 12 months; b= among sexually active survey respondents

Appendix 3: Stocktake reports

To access information from the stocktake reports please contact:

Family Planning NSW http://www.fpnsw.org.au/

Aboriginal Health and Medical Research Council of NSW (AH&MRC)
http://www.ahmrc.org.au/index.php

Appendix 4: AH&MRC campaign Evaluation

An evaluation of the "*It's your choice have a voice- Rights Respect Responsibility"* campaign is available on the AH&MRC website: http://www.ahmrc.org.au/index.php

Appendix 5: Conference abstracts, posters and presentations

Conference presentation: Saulo D, Fernando, T, Milsom, J. The NSW Aboriginal Sexual and Reproductive Health Program: Engaging Youth through innovation. 2012 International Union against Sexually Transmitted Infection World Congress conference, Melbourne.

Conference presentation: Milsom J, Saulo D, Gerstl B, Patterson P, Ritter T, Monaghan R. A funded Sexual and Reproductive Health Worker position at an Aboriginal Community Controlled Health Service improves health service access and sexually transmissible testing in Aboriginal youth. 2013 Australasian Sexual Health Conference, Darwin.

Conference poster: Chapman M, Lawson N, Smith D, Monaghan R, Patterson P, Ritter T, Saulo D, Gerstl B. Mind the Gap: Innovative health promotion activities conducted in regional NSW to improve testing rates for sexually transmissible infections. 2013 Australasian Sexual Health Conference, Darwin.

Conference poster: Cochrane T, Saville G, Monaghan R, Saulo D, Patterson P, Ritter T, Gerstl B. Men's group sessions can improve access and sexually transmissible testing rates in young Aboriginal men. 2013 Australasian Sexual Health Conference, Darwin.

Conference poster: An Evaluation of an Aboriginal Sexual and Reproductive Health Project in selected NSW Aboriginal Community Controlled Health Services. Ngarra exhibition. 2013 Australasian Sexual Health Conference, Darwin.

Conference poster: Lees K, Monaghan R, Saulo D, Patterson P, Ritter T, Gerstl B. Taking action to close the gap: yarning about sexual and reproductive health with Aboriginal youth, 2013 Australasian Sexual Health Conference, Darwin

Conference poster: Riddiford J, Slattery C and Gillham K. Aboriginal Parenting Sexual and Reproductive Health Program (PASH), 2013 Australasian Sexual Health Conference, Darwin

Conference presentation: Nairn, K, Green, K, Stacey, T, Barlow D, Crump G, Heard T & Dahlstrom. Aboriginal youth make proud sexual health choices. 2012 First National Sexual & Reproductive Health Conference, Melbourne.

Conference presentation: Ritter T & Bateson D. Contraception use among Aboriginal women in Australia – a literature and data review. 2012 First National Sexual & Reproductive Health Conference, Melbourne.

Conference presentation: Fernando, T & Hure S. The effectiveness of an Aboriginal specific Sexual and Reproductive health education camp. 2012 First National Sexual & Reproductive Health Conference, Melbourne.

Conference presentation: Harrison K, Cairnduff S, Guy R, Graham S, Watchirs L, Ford B, Harrod ME, Ritter T, Duley P. An overview of the 2010-2014 NSW Aboriginal Sexual and Reproductive Health Program, 2014 Australasian Sexual Health Conference, Sydney

Conference presentation: Ford B, Ritter T, Watchirs-Smith L, Harrod ME, Lees K, Monaghan R, Harrison K, Guy R. Use of Long Acting Reversible Contraceptives (LARCs) and dual protection among young Aboriginal women, 2014 Australasian Sexual Health Conference, Sydney

Conference poster: Ritter T, Duley P, Harrison K, Fazio A. Using 'Most Significant Change' to Evaluate 'Sexuality, Health and Facilitating Groups', an Aboriginal Health Worker-focused Reproductive and Sexual Health Workforce Development Workshop. 2014 Australasian Sexual Health Conference, Sydney

Conference presentation: Duley P, Ritter T, Wicks J, Harrison K . The Impact of 'Sexuality, Health and Facilitating Groups' Training among Aboriginal Health Workers and others working with Aboriginal youth. 2014 Second National Sexual & Reproductive Health Conference, Melbourne.