



Sexual and reproductive health status and health service utilisation of adolescents in four districts in Nepal

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ABBREVIATIONS

AFR	Adolescent Fertility Rate
ANC	Antenatal Care
ASRH	Adolescent Sexual and Reproductive Health
CPR	Contraceptive Prevalence Rate
DHO	District Health Office
FHD	Family Health Division
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ GmbH)
GoN	Government of Nepal
HMIS	Health Management Information System
NDHS	Nepal Demographic and Health Survey
NHRC	Nepal Health Research Council
RHD	Regional Health Directorate
SBA	Skilled birth attendant

I would like to thank Professor Edwin van Teijlingen (Bournemouth University) and Dr. Padam Simkhada (Sheffield University) for the supervision and quality assurance of this baseline study conducted by Mr. Dev Raj Acharya. This study is the first part of an impact evaluation that documents the effectiveness of the National Adolescent Sexual and Reproductive Health Programme led by the Family Health Division.

Special thanks goes to GFA Consulting Group and in particular Ms. Eva Schildbach, Mrs. Pushpa Lata Pandey, Mr. Pushkar Raj Silwal and Mrs. Jamuna Shrestha Bhattarai and my FHD colleague Ms. Mangala Manandhar for their technical guidance.

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Dr. Senendra Upreti

FHD Director

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INTRODUCTION

Nepal has 8.8 million young people of whom 6.3 million are adolescents (aged 10-19), i.e. one-third of the total population consists of young people and one-quarter is made up of adolescents (WHO 2007). This means every year a large number of young people become sexually active for the first time. The Nepal Demographic and Health Survey 2011 (NDHS 2012) suggests a reduction in the adolescent fertility rate (AFR) and an improvement in the use of condoms (especially) and in young people's use of modern methods of family planning. However, the latter remains low for married adolescents and youth (14.4% and 23.8% respectively). These issues are amongst some of the reasons why the Government of Nepal (GoN) included ASRH (Adolescents' Sexual and Reproductive Health) in its National Adolescent Health and Development Strategy in 2000. This strategy identifies critical interventions, such as information campaigns to increase awareness of reproductive health issues and services. In 2007, the Family Health Division (FHD) published a guideline on ASRH to support district health managers to implement the strategy across the country.

In 2008, a draft national ASRH programme under the leadership of FHD was developed with the support of GIZ and piloted in 26 public health facilities in Bardiya, Surkhet, Dailekh, Jumla and Baitadi. Since 2009, FHD has been scaling-up the national ASRH programme with its own budget and jointly with external development partners in order to

reach the target of 1,000 adolescent-friendly services in the public health system. The major components of national ASRH programme include:

- Making the public health facilities adolescent friendly and creating demand for the services in the communities;
- Equipping the health facilities with basic necessary equipment to provide confidential services to adolescents;
- Training health workers on ASRH and providing materials;
- Involving adolescent in decision making of health facilities;
- Providing appropriate sexual and reproductive health (SRH) services to adolescents (family planning, HIV/STI (sexually transmitted infections)/abortion services).

An evaluation of the national ASRH programme was commissioned by GIZ (through GFA Consulting Group) to assess the effects of the programme on adolescents in terms of their use of and satisfaction with health services and improved SRH knowledge and behaviour. The research was designed in close collaboration between GFA, the researcher in Nepal and universities in the United Kingdom (UK): the University of Sheffield and Bournemouth University.

1.1 Rational of the Study

Young people do not have adequate access to appropriate information and services about SRH issues (Acharya *et al.* 2009). Little sex education is offered in schools and sex and reproductive health are topics not openly discussed in families. Girls are more vulnerable because they have less access to formal institutional structures such as schools and health care systems than boys have and are unlikely to be incorporated into or receive accurate information through informal communication networks (Mathure *et al.* 2004). Overall, the latter study endorsed the effectiveness of the participatory process of community mobilisation to foster a positive environment as a necessary first step to improving maternal care for young married women.

The GoN and external development partners are scaling-up the national ASRH programme as outlined in the background section in order to address the above problems through the health sector. For Nepal, this is the first time that AFSs are introduced through the public health system and given that substantial motivation within the MoHP and specifically the FHD linked to budgetary expenses prevails to scale-up this programme, it is of paramount interest to establish its effectiveness. The evidence will feed both into national programming and international debates regarding the overall approach of using the public health system as an effective means of reaching young people versus using the private sector (including non-governmental providers).

This report is the baseline of this impact evaluation

1.2 Aims and Objectives

The aim is to evaluate the effectiveness of the national ASRH programme in terms of utilisation, satisfaction and health outcomes of young people in Nepal. This study will improve the evidence-base for ASRH interventions and contribute to strategic and programmatic decisions by the MoHP (including FHD). The specific objectives of the evaluation research are to:

- (a) Establish the effect of the intervention, and
- (b) Identify ways to improve the intervention's implementation.

1.3 Research Questions

- What is the difference in utilisation of services by young people between the intervention and control communities?
- What is the difference in levels of satisfaction by young people of the services available in the intervention and control communities?
- What are the differences in health outcomes between young people in the intervention and control communities?

2

METHODOLOGY

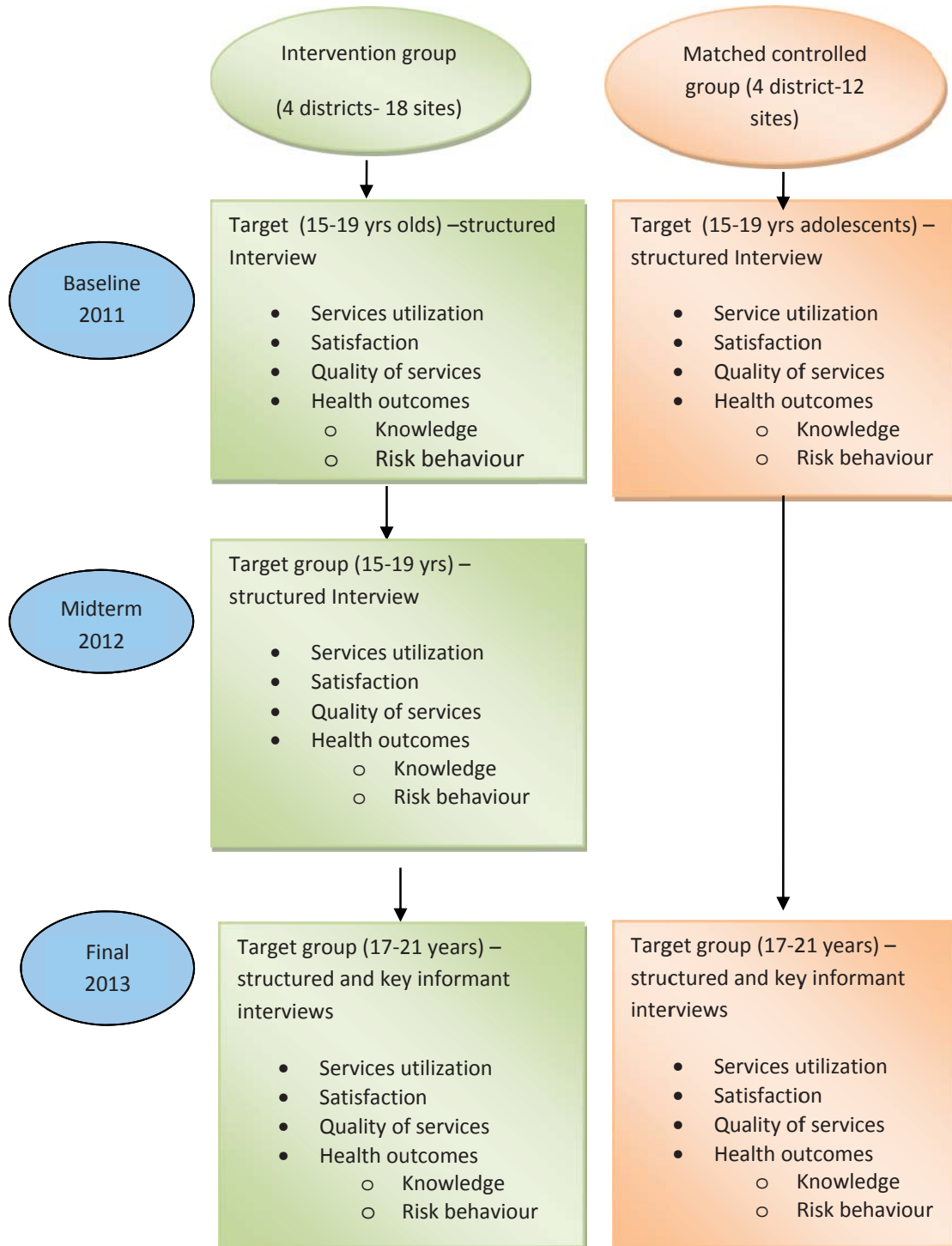
2.1 Study Design

This evaluation is based on controlled before-and-after-study (CBA) design using a mixed-methods approach. The mixed-method design is applied in order to give compensatory strengths from each method to understand the process of behavioural changes. Many researchers have argued in favour of combining research methods (Tones & Tilford 1994, Weston 1998). Without a before-and after element we would not be able to identify change over time and without a control group would not be able to show an possible effect of the intervention over and above changes in young people's uptake of sexual health services already taking place in Nepalese society. CBA studies are widely used in health as well as in education (behavioural change) settings with representative samples and wherever feasible comparison populations (Tucker *et al.* 2006). One of the ways to address the question of changes in the uptake of services in the study communities is to study Government facilities' routine service use data (Health Management Information System,

HMIS). The limitations of using such routine data sets in the evaluation of interventions have been outlined by Kane *et al.* (2000). Nevertheless, this evaluation includes HMIS data in order to determine whether uptake of services is increasing among the target population.

In this study we identify an intervention group which receives the intervention and the control group which does not. The control and intervention group are similar on key characteristics, e.g. size, socio-demographic features or rurality. The effects of an intervention are tested by collecting data both before and after the intervention was introduced, and the results for the control and intervention groups are then compared (*Fig. 1*). Outcomes are measured at the same times for both groups, hence, the questionnaire survey will be conducted thrice among the intervention group (once before, once during and once after the intervention) and twice among the control group (before and after).

Figure 1: Evaluation framework



2.2 Study Area and Population

The study is carried out in four intervention districts; Doti (Far-Western), Dang, Banke (Mid Far-Western) and Dolakha (Central Region). In the three districts Doti, Dang and Banke ASRH programmes are implemented with support from GFA/GIZ and in Dolakha it is implemented by MoHP/FHD. These districts have been selected for research in discussions with FHD, Regional Health Directorates (RHDs) and District Health Offices (DHOs). The control or comparison sites (VDCs) were carefully selected from the same districts, to keep intervention and control communities as similar as possible. We reached a total of 30 health facilities (HP/SHP/PHC) including one zonal hospital (Bheri) and one sub-regional hospital (Ghorahi) in four districts.

The baseline sample consists of 15 to 19-year-old adolescents currently living in these four districts (both in intervention and control area). The mid-term sample will be 15 to 19-year-old adolescents currently living in the four selected districts, as well as selected key stakeholders / professionals. The sample in the final evaluation (post intervention) will be young people who received the intervention (17 to 21-year-old) currently living in those four districts, as well as selected stakeholders / professionals.

2.3 Sampling Method and Sample Size

For the quantitative survey of young people, a stratified random sample method was applied to select the study population. The study population was first classified into groups (called *strata i.e. by district, school and out of school*) with similar characteristics. Based on sample-size calculations a simple random sample was chosen from each of the four districts separately. For qualitative study (in-depth interviews) during the mid-term

evaluation we shall use an opportunistic sample. For the study of records of health facilities we selected all relevant government health facilities in both intervention and control areas.

The sampling calculated that 2,970 young people (1,980 from intervention and 990 from control areas) were to be surveyed using structured questionnaires in an interview (if the respondents are illiterate) or through a self-administrated questionnaire to be completed (for literate). Half of the respondents were to be males and half females. A similar survey, using similar questionnaire will be carried out in 2012 for a mid-term review and in 2013 for a final evaluation. In addition, ten to fifteen face-to-face in-depth interviews will be carried out during mid-term and final evaluation.

2.4 Data Collection

The study is largely based on a questionnaire study, supported by a smaller qualitative element. The questionnaire has been largely constructed from existing validated ones, such as the DHS, GFA and GIZ questionnaires. Further these newly constructed questionnaires were pilot tested with nine young people (male=5, female=4), some at school and some out of school outside the research area. Literate respondents were given a structured questionnaire (self administrated) to complete themselves. Respondents had an opportunity to ask any unclear questions to the researchers. Illiterate respondents were interviewed face-to-face using the same structured questionnaire. For the study of records of health facilities we designed a short form to capture the relevant information on young people's service use.

2.5 Data Management and Analysis

The data was entered in an electronic database (SPSS 18.0), and questionnaires were coded

by number not by the name to maintain confidentiality. Sexual and reproductive health service usage data were entered in both SPSS and Excel for ease of analysis.

Ethical clearance was obtained from the Nepal Health Research Council (NHRC). The latter

emphasized the importance to obtain informed verbal consent from the participants and maintain their anonymity and confidentiality. The researcher duly respected the social and cultural values of the participants.

3

RESULT

3.1 Demographics of Survey Population

Sample size calculations suggested we needed 2970 adolescents with approximately 2000 living in the intervention areas and 1000 in the control sites (Table 1). The targets for each district were calculated with the help from District Public Health Offices in Doti, Banke, Dang and Dolakha.

Table 1: Target sample size for questionnaire survey by district

Area/ district	Target	
	Intervention	Control
Doti	320	160
Banke	620	310
Dang	740	370
Dolakha	300	150
TOTAL	1,980	990

The final actual number of survey participants was 3,041. In the intervention areas, males represented 49.5% of the total sample and in the control areas they made up 49.2%. In both the intervention and control areas 15-year-olds made up the largest sub-group of the population and 19-year-olds the smallest. Table 2 shows that the control and intervention communities are fairly similar in age composition, although the population of the intervention areas appeared to be slightly older with fewer 15- and 16-year-olds there than in the control ones (Table 2).

Table 2: Age of survey participants (baseline survey 2011)

Age	Intervention areas		Control areas	
15 years	667	32.5%	377	39.3%
16 years	509	24.8%	252	26.3%
17 years	355	17.3%	125	13.0%
18 years	361	17.6%	126	13.1%
19 years	159	7.8%	80	8.3%

*age of 30 respondents is missing (out of 3041), hence total number in above table is 3,011.

Half of the respondents were from the upper caste in the intervention group (50.1%), a proportion which was slightly higher in the control group (57.0%). The proportion of Dalits in the two populations was 8.5% in the intervention and 9.1% in the control area. However, there was a difference between the districts; the highest proportion of Dalits in the study was found in the intervention areas of Doti (20.7%) and the lowest in Dolakha control areas (3.7%).

Hindus were in a majority in both the intervention and control areas; 89.5% and 93.1% respectively. The proportion of Buddhists varied from 0% in Doti (both intervention & control areas) to 26.0% in the Dolakha intervention area. Overall 3-4% identified themselves as Muslim, with the exception of Banke where 9.2% of the intervention and 11.5% of the control areas

called themselves Muslim. Very few adolescents were married (n=174) in both control and intervention (about 6%). Of all married young people in this study 61 (35.1%) were male and 113 (64.9%) were female.

The overwhelming majority of survey participants was literate in both the intervention (98.4%) and control areas (99.2%). Just less than half of all survey participants were currently at school (intervention = 44.2%; control = 45%). Between one in five to one in four adolescents had left school by Grade 6. About two-thirds (65.5%) of fathers had completed at least primary education both in the intervention and control area. A sizeable minority of fathers had completed secondary education (intervention=42.9%; control=45.3%). In contrast, mother's illiteracy was high in both intervention 39.2% and control groups 38.6%. Agriculture was the main occupation of the fathers in both groups, and mothers were most likely to be housewives (intervention= 60.0%; control 52.5%), followed by working in agriculture (intervention= 29.4%; control 36.4%).

A majority of adolescents had no personal mobile phone: 1,066 (51.5%) in the intervention group; 619 (63.9%) in the control group. Overall, fewer women than men had a mobile phone, less than one third (32.0%) of all female respondents had a mobile phone, but more than half of all male respondents (57.3%) had one. Most did not have a laptop/ computer, internet access or a motorbike in the intervention. Overall males were more likely to report having a laptop or PC in the house than females (11.0% versus 7.8%); this gender imbalance was fairly similar in the intervention as in the control group. While overall internet access at home was low, men were twice as likely to have such access (overall male 8.6%; female 3.7%). The gender imbalance in home internet access was fairly similar in the intervention as in the control group. More men than women had

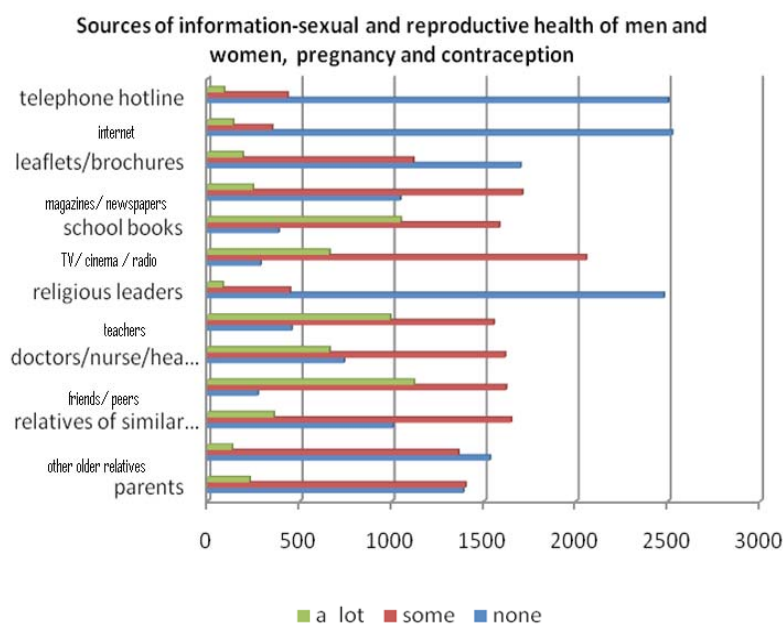
a motorcycle (male 7.5% versus female 6.1%) A fairly large proportion of adolescents had a bicycle (intervention=44.0%; control=44.5%). There was a considerable gender difference with more than half of the males (52.4%) having a pedal bike and only just over one-third (36.1%) of the females. A majority of all respondents from both groups had electricity at home (over 80%) and many had radio at home (intervention=83.9%; control=77.7%) and/or television (intervention= 60.5%; control 55.7%).

In terms of lifestyles, more than 90% responded that they had never smoked, and four out of five respondents visited dohori / clubs sometime. A high percentage of adolescent responded that they never drink alcohol: 1708 (82.6%) in the intervention group and 844 (87.5%) in the control group. Nearly all (around 98%) adolescents responded that they do not take narcotic drugs, about 11% in both the intervention and control group thought their friends had taken drugs.

Just over half of adolescents (53.2%) had received some information about puberty and bodily changes from their parents; 760 males (50.8%) and slightly larger number (n=851) and proportion (55.4%) of the females. However, just less than half 1408 (46.5%) received 'some' of such information from friends and/or peers; more so among the young women (51.1%) than among the men (41.8%). However, in reply to the same question about getting information, more males (51.7%) than females (41.0%) had received 'a lot' of such information from peers/friends.

Additionally, nearly half of all respondents (47.4%) received 'some' information on puberty and bodily changes from school books; more males (50.6%) than females (44.2%) reported getting 'some' information from books. Overall 46.1% received 'some' information from school teachers and there was no gender difference. Nearly all adolescents

Figure 2: Sources of information on SRH (Baseline survey 2011)



(92.9%) also reported that television/cinema/radio provided some information on puberty and bodily changes and there was no gender difference among those who reported not receiving such information through the electronic media.

For approximately one-third of survey participants friends/peers and school books provided SRH information for adolescents and about two-thirds responded that each of the following provided no information on such issues: (a) telephone hotline; (b) internet; and (c) religious leaders (longest blue lines in Figure 2). According to most participants telephone hotlines, the internet, leaflets/brochures and older relatives were not a common source of information on STIs and HIV/AIDS.

3.2 Knowledge

Nearly all had heard of contraceptives; intervention group (97.4%)/ control (96.3%). Female respondents were more likely than men to say that they had not heard of any contraceptives, but note that the numbers are very small (males 10 out of 1,498 & females

27/1,538). In total 2535 respondents claimed they knew how to use condoms, more males did claim to know than females. In a question ‘if used properly condom can protect against HIV transmission?’ an overwhelming majority of adolescents agreed in the intervention group=1897 (91.7%) and in the control group=850 (88.0%). There was a gender imbalance with 95.0% of the males agreeing and ‘only’ 86.2% of the females.

Table 3 shows that generally less than one-third of all young people had a comprehensive knowledge of HIV and AIDS (i.e. they answered all seven knowledge questions¹correctly in questionnaire). Young people in Banke scored lowest, whilst Dang had the highest proportion of young people who knew the answer to these seven questions. Table 4 shows the differences between males and females in view of the correct answers to the seven questions.

¹ Knowledge questions: 1. condom can be used more than once; 2. if used properly condoms can protect against HIV transmission; 3. a person looks strong & healthy can have HIV; 4. a person can get AIDS through mosquito, flea, or bedbug bite; 5. a person can get AIDS by sharing food with a person who has AIDS; 6. a person can get AIDS by touching with a person who has AIDS; 7. condom use reduces the chance of getting AIDS.

Table 3: Comprehensive knowledge of seven HIV-related questions

District	Intervention group N (%)*	Control group N (%)*	District Total N (%)*
Doti	96/316 (30.4%)	34/163 (20.9%)	130/479 (27.1%)
Banke	167/589 (28.4%)	69/298 (23.2%)	236/887 (26.6%)
Dang	220/759 (29.0%)	120/352 (34.1%)	340/1111 (30.6%)
Dolakha	99/358 (27.7%)	36/135 (26.7%)	135/493 (27.4%)

* Proportion of respondents who correctly answer all 7 HIV-related questions

Table 4: Correct answers to seven HIV questions by gender (in intervention or control group is)

Question	Male**	Female	Total
Condom can be used more than once (correct answer = False*)	1287 (85.8%)	1160 (75.6%)	2447 (80.6%)
If used properly condoms can protect against HIV transmission (T)	1422 (95.0%)	1325 (86.2%)	2747 (90.5%)
Person looks strong & healthy can have HIV (T)	984 (65.8%)	956 (62.2%)	1940 (64.0%)
Person can get AIDS through mosquito, flea, or bedbug bite (F)	1019 (68.7%)	859 (56.1%)	1878 (62.3%)
Person can get AIDS by sharing food with a person who has AIDS (F)	1219 (81.9%)	1225 (80.0%)	2444 (81.0%)
Person can get AIDS by touching with a person who has AIDS (F)	1331 (89.1%)	1315 (85.9%)	2646 (87.5%)
Condom use reduces the chance of getting AIDS (T)	1162 (77.8%)	1101 (71.8%)	2263 (74.8%)

Notes: * T=True, F=False; ** those who answered correctly out of all men or women respectively.

A large proportion of adolescents had heard about sexually transmitted infections (STIs), of these, syphilis was best known (intervention=70.2%; control=65.3%) followed by gonorrhoea (intervention=49.9%; control=47.2%).

3.3 Behaviour

The majority of adolescents had had no sexual intercourse; 78% in the intervention group and slightly more (85.6%) in the control group. Only one in five (427/2067 which is 20.7%) in the intervention group and about one in eight (128/968 which is 13.2%) in the control group said that they had had sexual intercourse. There exists a huge gender difference with more than one quarter (28.8%) of the young men claiming to have had sex and less than one in

ten of the young women (8.1%). Interestingly, more young people thought that the majority of their friends have already had sex (intervention 30.9%; control 24.9%). Again there is an even larger gender difference with half of the young men (50.0%) thinking their friends had had sex and only 8.3% of the young women thinking their friends had had sex. It is interesting that nearly double as many females stated 'I don't know' in answer to this question than males did (41.7% versus 24.0%).

Of those who had had sex, the majority reported that they had had their first sexual intercourse at the age of 16 or younger (intervention=65.1%; control=75.8%). Someone's girlfriend or boyfriend was the major partner for sexual intercourse; this was the case for the majority (59.3%) of the intervention group and the control group (52%), the next

key partner was someone's wife/husband with 21.6% in the intervention group and 31.7% in the control group. However, it is very important to look at the gender segregation here; for young men their first partner was most likely their girlfriend (69.4%), but for young women their first sexual partner was most likely their husband (77.5%), whilst only 8.9% of the young men reported their 'wife' to be their first sexual partner.

A large proportion, i.e. 271/419 (64.7%) in the intervention group and 87/123 (70.7%) in the control group replied that they had used a condom the last time they had sex. These proportions relate to those who had already had sexual intercourse. Asked why they had not used a condom, 30.7% of the intervention group and 41.0% of the control group replied that they had had trust in their partner. The next largest category for not using a condom was that there was none available (intervention group 18.7%; control 15.4%). About one in eight adolescents responded that 'they were not aware of it' and also that 'it reduces sexual pleasure'. Far more participants said that they used condoms to avoid pregnancy than to avoid STI/HIV. More than 99% of the females used condoms to avoid pregnancy and 71.3% of the males did so. More males used condoms to prevent STIs (23.3%) than females (5.0%), also males were more likely to use condoms to prevent HIV/AIDS (30.0%) than females (2.5%). Pharmacies / local clinics were the main places where young people got their condoms in both the intervention (54.3%) and control group (47.2%), and many also preferred to get condoms from there (intervention=44.5%; control=38.2%).

Young men and young women were equally likely to say that they had used a condom the last time they had sex, 64.7% versus 65.3% respectively. There was very little difference between married and unmarried adolescents. Respondents still at school were slightly less likely to report that they had used a condom

during their last intercourse than those who had left school, 68.1% versus 61.3% respectively. Condom use during last intercourse in the age group 15-19 was highest in Doti (73.0%) and lowest in Dang (61.3%).

We looked at the sub-sample (n=113) of young married women (aged 15-19) in all areas combined. Close to two-thirds (61.9%) used a modern contraceptive method which meant for the majority using condoms. As the overall number (n=113) is low it is difficult to make reliable comparisons, but it appeared that young married women in Banke were least likely to use modern methods of contraception and those in Dolakha most likely, 35.9% versus 91.3% respectively.

A large percentage of participants was currently not using any contraceptive method to delay or avoid pregnancy (intervention= 85.0%; control= 87.6%). The condom was by far the most preferred method of contraception in both the intervention group (91.9%) and the control one (92.1%), followed by a very low preference for oral pills of only approximately 4%.

Government health facilities were the major source of emergency contraceptives in both the intervention (69.8%) and control group (71.1%), followed by private medical shops (25%). A small proportion of all respondents (9.3%) had acquired emergency contraception, two thirds of those were male (65%) and among total users of emergency contraceptives, 85% were unmarried. Of those who had used emergency contraceptives, girls were more likely to be married. Of those that had used emergency contraceptives males were slightly less likely to have acquired emergency contraceptives from government health facilities than females (67.1% versus 76.4%).

Less than fifty percent of adolescents responded that contraceptive devices they received from the government health facility were always available (intervention=46.8%;

control=40.4%). About a quarter of respondents replied that young people did not get contraceptives of their choice from the health facility (intervention=25.1%; control=24.6%). The majority of respondents had not (yet) received any information about other methods of family planning other to the one they were using from a health worker (intervention: 79.8% and control 86.2%), more female respondents (85.1%) reported this than males (78.5%) did.

A substantial minority of respondents stated that a woman has a greater chance to get pregnant when she has sex during menstruation (intervention=45.4%; control=48.9%). Nearly ten percent in both groups rejected the statement that people who want to have sex should respect the right of others to say 'no'. A significant number of adolescent believed that a girl loses her self-respect if she has sex before marriage (intervention= 72.9%; control=69.2%). In contrast, respondents were more likely to say 'no' to the statement 'a boy loses his self respect and dignity if he has sex before marriage'; namely just over half of the intervention group (56.2%) and just less than half of the control group (48.8%).

On the topic of masturbation, only 28.3% correctly stated that masturbation was not harmful, with man being more likely to give the correct answer than girls.

3.4 Sexual Intercourse

Respondents who had left school were more likely to have had sexual intercourse than those still at school. Chi-square test revealed that the percentage of school categories significantly differed ($p < 0.05$). Young men were far more likely to report that they had had sexual intercourse than young women in the survey, 28.8% versus 8.1% respectively. Interestingly, of those who said that they had not had sex, 29 were married, representing 1.2% in both the

intervention and control group. As confirmed by most other studies, having had sex is age-related; hence younger respondents were less likely to report that they had had sexual intercourse.

3.5 Utilisation of and Satisfaction with Health Services

In both the groups still at school and those who had left school about one-third had ever been to the nearest government health facility for obtaining reproductive services, for those still at school the proportion was 33.8% and for those who had left school it was slightly higher at 35.4%. The proportion was also very similar between those in the intervention group (33.9%) and in the control group (35.1%). Male participants were more likely to have ever been to the nearest government health facility for obtaining reproductive services, compared to young women, 38.7% versus 30.0% respectively.

A significant number of respondents had to walk less than an hour to reach the health facility (intervention=90.2%; control=89.9%). However, the majority of them thought that the health facility was not friendly as there is no separate room for adolescents (intervention=63.8%; control=76.9%). In addition, other reasons for not being friendly included: health facilities cannot maintain privacy (intervention=54.6%; control=59.3%), often they do not have a functional toilet (intervention=42.8%; control=62.8%), nor have they IEC (Information, Education and Communication) materials displayed in the waiting area. There was a large difference regarding IEC materials being displayed in waiting areas between the intervention (71.1%) and the control group (45.7%). About a third of the participants still felt uncomfortable discussing their sexual health problems with health care providers (intervention=30.5%; control=34.3%). A high number of adolescents

said they had had wasted trips to health centres and had to return home as the health care providers were not in the facility when they got there (intervention=41.0%; control=49.6%).

Nevertheless, a majority of the respondents was satisfied with the SRH services provided by the health facility (intervention=61.3%; control=55.8%), followed by a group who were not satisfied (intervention=16.3%; control=22.1%). Similar proportions of participants in both the intervention (85.2%) and control group (84.2%) would recommend the health facility to their friends and relatives, and they prefer to go there for HIV/AIDS/STI problems (intervention=72.7%; control=69.8%). However, for the help with sexual abuse/assault, they would go to the police station (intervention=74.9%; control=79.7%).

About half of the respondents knew that the ASRH services are available in the health facilities of their area (intervention=50.2%; control=49.9%), slightly more men knew this (52.3%) than women (47.9%). At the same time, the majority thought that these health facilities were not adolescent friendly (intervention=60.7%; control=69.5%). The view was fairly similar between men and women, as 37.0% of men thought facilities were young-people friendly and 35.9% of the women thought so. The main purpose to visit a government health facility was to get counselling for SRH and ASRH problems (intervention=46.8%; control=33.7%), followed by immunisation (intervention=18.8%; control=22.1%). The proportion of men and women who went for counselling services for SRH was similar (42.3% versus 43.8%), whilst there was great difference for immunisation (men 6.7% and women 37.0%). About half replied that there was no life skills-based health education programme offered near to their area (intervention=46.9%; control=51.1%). Neither had local health facilities and schools organised periodic checkups for adolescents (intervention=71.8%; control=70.8%).

Overall a large proportion of young people (71.6%) was satisfied (or very satisfied) with the sexual health services provided. Those classified as not satisfied had answered 'not satisfied' or 'I don't know' on the questionnaire. Young men were more likely to report high levels of satisfaction with the services on offer than young women. The gender difference was not enormous, but greater in the control area (male 70.3% versus female 66.3%) than in the intervention area (male 74.1% versus female 72.2%). Satisfaction levels (young men and women combined) were lowest in Doti (56.3%) and highest in Dolakha (80.6%). Interestingly, Dolakha was the only district where young women were more likely to be satisfied with the sexual health services on offer than their male counterparts. This was the case in both the control and the intervention group.

Analysing satisfaction with services by age gave a less clear picture. In the intervention districts those aged 16 years and younger were slightly less likely to report that they were satisfied (72.6%) than respondents aged 17 and older (74.0%), whilst in the control group younger respondents were more likely to report being satisfied with service provision than those 17 and older, 70.0% and 64.4% respectively. The greatest percentage difference between older and younger respondents was found in the Banke control group where only 55.6% of those aged 17 and older were satisfied whilst 75.3% of those aged 16 and under were satisfied with the services on offer.

3.6 Records of sexual and reproductive health service utilisation

The data collected from a total of 30 government health facilities in both the intervention and control areas give insights in the available sexual and reproductive health services and the uptake by adolescents. Table 5 reports absolute numbers of sexual

health service use by people over 20 years and adolescents under the age of 20. This is the age group disaggregation currently followed by the health information management system (HMIS).

The numbers represent contacts with the relevant services not people nor the percentage of the population in the catchment areas using services.

In other words, the way the data is amalgamated from the health facilities allows us to get information about service usage but not about the number of people using the specific service.

As different types of health facilities were assessed for service utilisation in the intervention and control groups, comparisons between the two groups should be done with caution. In the control group of Dolakha for instance, the health facilities assessed were not offering services with regard to institutional delivery or safe abortion, hence it cannot be

included that the people in this group do not use these services, but rather that there is an issue of access. Similarly, the figures between above and below 20 for each type of service used cannot be directly compared either, as the denominator is not given. The data in Table 5 is given here, as the future assessments at the same health facilities should provide data on the trend in service uptake within the intervention and within the control group. A list of all health facilities include in the assessment is given in Table 6.

Some general impressions from the data are:

- Implants – where available – experience a low uptake by under 20 year olds
- The number of recorded first antenatal care visits (ANC) is higher than the number of all four ANC visits
- Both the Banke and Dang intervention group have relatively high numbers of deliveries attended by SBAs owing to the presence of larger health facilities offering maternity care in those districts and sites

Table 5: Health Services Use one year (Shrawan 2067-Ashad 2068 BS)

Service	Age	Dolakha		Banke		Dang		Doti	
		Interv.*	Control	Interv.	Control	Interv.	Control	Interv.	Control
OCP (Current User)	< 20	29	0	42	38	25	123	43	3
	20+	760	495	376	721	1407	1334	1231	177
Depo (Current User)	< 20	152	51	231	319	284	438	105	3
	20+	3254	3121	6524	4283	6563	5066	1904	1073
Implant (Current User)	< 20	4	0	3	0	92	0	0	0
	20+	93	0	230	0	5915	0	0	4
First ANC	< 20	161	15	359	65	489	471	120	64
	20+	526	140	1735	254	1210	725	654	181
Four ANC	< 20	58	11	110	29	101	127	45	10
	20+	106	119	363	93	338	205	214	97
TT users	< 20	116	10	220	29	101	151	10	2
	20+	232	19	978	109	377	318	63	112
Safe Abortion	< 20	8	0	16	0	48	0	0	0
	20+	185	0	164	0	210	0	3	0
Institutional delivery	< 20	85	0	922	23	767	6	23	8
	20+	323	0	4759	70	2256	11	134	62
Delivery SBA	< 20	80	0	1296	0	851	3	27	12
	20+	243	0	4596	0	2065	2	78	27

*Interv. = Intervention ANC = antenatal care TT = tetanus toxoid SBA = skilled attendant at birth

Table 6: Overview of health facilities included in the assessment

Operational research- List of HFs by Intervention (I) and Control (C)		
District	Health Facilities	Category
Dolkha	Chhetrapa HP	C
Dolkha	Sundrawati HP	C
Dolkha	Katakuti SHP	C
Dolkha	Boch HP	I
Dolkha	Jiri District Hosp.	I
Dolkha	Charikot PHC	I
Dolkha	Dolkha HP	I
Dolkha	Namdu HP	I
Banke	Udharapur HP	C
Banke	Naubasta SHP	C
Banke	Binauna SHP	C
Banke	Phatteypur HP	I
Banke	Sonpur HP	I
Banke	Kamdi SHP	I
Banke	Bheri ZH	I
Banke	Baijapur SHP	I
Dang	Panchakule HP	C
Dang	Lalmatiya SHP	C
Dang	Halwar HP	C
Dang	Kabhre HP	I
Dang	Lamhi PHC	I
Dang	Rapti Sub-Regional Hosp	I
Dang	Pawan Nagar SHP	I
Doti	Kalena SHP	C
Doti	Berchhaina SHP	C
Doti	Sanagaun HP	C
Doti	Banlek SHP	I
Doti	Chhatiwan SHP	I
Doti	Saraswoti Nagar PHC	I
Doti	Mudvara HP	I

4

DISCUSSION

There are differences between the control areas and the intervention areas, as one would expect in a community-based survey. However, these differences are not enormous, i.e. the areas are similar enough in their key characteristics to make reasonable comparisons. Also the differences are not systematic, neither in behaviour nor in knowledge. To illustrate this point see Table 3 above. Table 3 shows that comprehensive knowledge of HIV is higher in two intervention districts, nearly similar in one (Dolakha 27.7% versus 26.7%) and higher in one control district (Dang). If we consider a behavioural aspect, for example condom use at last intercourse, we see that Table 6 shows that condom use is higher in young people in the control group of Doti, Dang and Dolakha, but lower in Banke.

As expected, various behavioural and knowledge factors showed much greater gender differences than those which existed between control and intervention areas. Interestingly,

among respondents who had experienced sexual intercourse men reported that their first partner had been their girlfriend whilst women are far more likely to report it was their husband.

As found in many sexual health studies aimed at young people across the world more young people in Nepal think that their peers have had sexual intercourse than it is the case in reality (Eggermont, 2005). For example, young people who are sexually active perceived that most of their friends are sexually active (Advocates for Youth, 1997). Young people get a great deal of information from their peers on issues that are sensitive or a cultural taboo. Interestingly, Fig. 2 illustrates that peers were a source of information on sexual issues, but perhaps not as much as elsewhere (Sub-Committee on Peer Education 2003).

Since less than ten percent of all study participants had internet access at home and just over half of the adolescents had a mobile

Table 6: Condom use among 15 to 19-year-olds during last intercourse

District	Intervention group N (%)	Control group N (%)	District Total N (%)
Doti	36/51 (70.6%)	18/23 (78.3%)	54/74 (73.0%)
Banke	86/124 (69.4%)	15/27 (55.6%)	101/151 (66.9%)
Dang	96/168 (57.1%)	40/54 (74.1%)	136/222 (61.3%)
Dolakha	53/76 (69.7%)	14/19 (73.7%)	67/95 (70.5%)

phone (see above) - while only one-third of young women had one - there is little scope for high coverage through mobile phone and cell phone interventions as used elsewhere in low-income countries as suggested in a recent systematic review (Denno *et al.* 2012).

A large proportion of young people was satisfied with the reproductive health services provided.

High satisfaction levels are commonly reported across the globe for a range of health services. There is a notion that people value what they have (receive) and cannot really envisage what a different/better service would look like, this is often referred to as the phenomenon of 'what is must be best' (Porter & Macintyre 1984; van Teijlingen *et al.* 2003).

5

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