

**Bangladesh ARH  
Focused Community Assessment  
Final Report**

**Bangladesh Center for Communication Programs**

Conducted by

**ACNielsen Bangladesh**

with

Technical Assistance from

**Health Communication Partnership**

**Johns Hopkins Bloomberg School of Public Health  
Center for Communication Programs**

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## Bangladesh ARH Focused Community Assessment Final Report

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The Health Communication Partnership (HCP) is a global communication initiative based at the Center for Communication Programs (CCP) in partnership with the Academy for Educational Development, Save the Children, the International HIV/AIDS Alliance, and Tulane University's School of Public Health and Tropical Medicine. In addition to the five core partners, HCP works with leading Southern-based health communication organizations as well as global programming partners from the corporate sector, international media, academic institutions, and faith-based organizations. For more information, go to: <http://www.hcpartnership.org/About/about.php>

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## Preface

Starting in 2002, BCCP with technical assistance from CCP and the national ARH Working Group, developed an innovative multimedia, interactive toolkit that revolves around the same four thematic areas. The Toolkit provides a set of tools for youth educators, including a series of four educational and entertaining videos, four accompanying Facilitator's Guides, the Question and Answer Booklets, and RH-related comic books. The toolkit revolves around four thematic areas: 1) physical and emotional changes; 2) sexuality, sexual attraction and delay of sexual debut; 3) preventing HIV and other sexually transmitted infections (STIs); and 4) preparing for marriage.

To assist in effective delivery of the kit, BCCP developed a training curriculum. Using participatory approaches, the workshop approach aims to increase knowledge and strengthen essential life skills such as decision making, negotiation and interpersonal communication related to reproductive risks. Hundreds of organizations, NGOs and educators across Bangladesh are now using the toolkit and booklets in various capacities.

Over the past 5 years, with the support of USAID under the Health Communication Partnership, the ARH Program, branded as 'Nijeke Jano' (Know Yourself), has grown to become a large-scale, multi-sectoral program with local, regional and national reach. For mass media, the program includes a 52-episode radio magazine program, a 13-episode TV magazine program, a 13-episode TV variety show with mini-drama for youth, an HIV awareness raising campaign and a "Know Yourself" branding campaign. We are looking forward to the broadcast of the sitcom and branding campaign in January 2007. In addition, a series of 12 comic books have been produced, several of which are available through a network of booksellers on the open market. Nearly 3 million copies of the Q&A booklets are in circulation through NGOs, schools, Government ministries and other institutions.

Strengthening national-level commitment is a cornerstone of the project. As a result of program momentum, the Government of Bangladesh has developed and adopted a 10-year National ARH Strategy. The Directorate General of Family Planning and other GoB directorates have engaged in program activities including formative research, design and scriptwriters' workshops, life skills workshops, and dissemination seminars. During the recent Dissemination Seminar for the Focused Community Assessment (FCA) research, the Joint Secretary (Development & Family Welfare), presiding Chief Guest, spoke of the success of ARH program and reiterated GoB's commitment to integrating ARH curriculum into the secondary school system. In addition, the Ministry of Health and Family Welfare (MOHFW) recently included the 'Know Yourself' program in the government's current Health, Nutrition and Population Sector Program 2004-2010 (HNPSP).

Beyond national-level mainstreaming efforts, BCCP and partners have led collaborative implementation of the ARH program through close to 20 different NGOs (in both rural and urban areas). Since 2005, groups have conducted hundreds of workshops with youth and orientations with parents and community leaders. NGOs have also created Adolescent Friendly Corners and on-site, confidential services on RH-related issues. More than 6,000 adolescents have participated in workshops and several hundred parents and community leaders have engaged in program orientations.

As the program evolves throughout Bangladesh society, it is important to monitor and evaluate our approaches to ensure the best use of resources. As part this effort, the Focused Community Assessment study is an effort to capture effects of the initial wave of toolkit implementation through a select number of NGOs, in three sub-districts from 2004 - 2005. It is our goal that lessons from this research will strengthen our ability to improve efforts in preventing risks and forging healthier adult lives among our youth. In

addition to this study, a larger impact evaluation is planned for 2007 which will measure effects of the mass media program and toolkit implementation combined.

I am very pleased to express my gratitude to the contributors to this study: the dedicated staff of BCCP; the continued support of the Health Communication Partnership based at the Johns Hopkins Bloomberg School of Public Health/Center for Communication Programs (CCP); and ACNielsen Bangladesh for carrying out this study with its usual high standards. Financial support for this study was provided by the U.S. Agency for International Development (USAID). Special thanks to the adolescent respondents and their parents/guardians, without whom this study would not have been possible.

Mohammad Shahjahan  
Director & CEO  
BCCP

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## Abbreviations

AIDS	Acquired Immune Deficiency Syndrome
ARH	Adolescent Reproductive Health
BBS	Bangladesh Bureau of Statistics
BCC	Behavior Change Communication
BCCP	Bangladesh Center for Communication Programs
BDHS	Bangladesh Demographic and Health Survey
ESOMAR	European Society for Market Research
FCA	Focused Community Assessment
FP	Family Planning
GO	Government Organization
HIV	Human Immunodeficiency Virus
IEC	Information, Education and Communication
KAP/B	Knowledge, Attitude and Practice/Behavior
MRS	Market Research Society
NGO	Non Government Organization
RDM	Rational Decision-Making Model
STD	Sexually Transmitted Disease
STI	Sexually Transmitted Infection
SSC	Secondary School Certificate
TV	Television
UNICEF	United Nations Children Fund

## EXECUTIVE SUMMARY

### Background

Adolescents between the ages of 10 and 19 years comprise one quarter of the total population of Bangladesh. While cultural norms limit Bangladeshi adolescents' access to health information, many experience considerable risks to their reproductive health. Females in Bangladesh continue to marry and begin childbearing during adolescence, while anecdotal evidence suggests a growing use of unprotected, commercial sex among adolescent males.

The Adolescent Reproductive Health (ARH) Communication Program seeks to address the information needs and psychosocial skills of adolescents and their parents/guardians that are necessary for making informed decisions and encouraging appropriate health-seeking behavior. It was designed, through a participatory process, to contribute to a broader social mobilization around adolescent reproductive health, through which individuals and organizations across Bangladeshi society engage themselves in creating an enabling environment for a healthy and open discussion on the adolescent reproductive health behaviors.

The ARH Program was developed by the Bangladesh Center for Communication Programs (BCCP) with guidance from a national ARH Working Group, technical assistance from the Johns Hopkins Bloomberg School of Public Health/Center for Communication Programs (CCP) under the Health Communication Partnership (HCP), and funding support from the United States Agency for International Development (USAID). The program uses multiple channels and approaches under a unifying ARH logo and slogan *Nijeke Jano*, or "Know Yourself," and it includes the following materials and activities: a series of four ARH information booklets with accompanying videos on puberty, relationships, risky behaviors including HIV/AIDS, and marriage and family Planning; bimonthly newsletters; a series of comic books; Life Skills workshops; and radio and TV magazine programs.

The toolkit of materials and approaches for community-based organizations were tested in a year-long pilot intervention in three *upazilas* (i.e. administrative unit). This pilot intervention involved six local NGOs and included one-day sensitization sessions with key stakeholders (GOB and NGO service providers), one-day orientation sessions with community leaders and school teachers, and four-day workshops for adolescents. A total of 3360 adolescent boys and girls participated in these workshops, which included sessions on puberty and adolescence, personal relationships, sexual feelings, and reproductive health issues. In addition to the workshops, a total of 4500 "Know Yourself" information booklets, 1000 parent brochures, 4500 newsletters for adolescents, and comic books on specific issues were distributed to adolescents and adults in the pilot intervention communities. Six adolescent-friendly corners were established within local health facilities to provide adolescents with a source for additional health information. A separate evaluation is planned for the mass media components of the program.

As part of this pilot study, two surveys were conducted of adolescents and their parents in both the intervention sites and selected comparison sites. These surveys were used to measure the changes in reproductive health-related knowledge, attitudes and behaviors resulting from the pilot intervention. This report presents the key findings from these surveys.

### Methodology

The surveys were conducted in three intervention Unions and three comparison Unions within Shakhipur Upazila in Tangail District, Ghoraghat Upazila in Dinajpur District, and Chowgacha Upazila in Jessore District. The first survey consisted of 1,702 adolescents

between the ages of 13 and 19 years and 1,203 parents interviewed between February and March 2004. The second survey consisted of 1,827 adolescents and 1,276 parents interviewed between June and July 2005.

### **Exposure to Reproductive Health Information**

As expected, a significantly higher proportion of adolescents and parents in the intervention area reported hearing or seeing the ARH slogan compared to their counterparts in the comparison areas. Among adolescents in the 2005 survey, 60 percent of those living in the intervention area and 18 percent of those living in the comparison area reported hearing or seeing the slogan in the past year. Among parents, 23 percent of those living in the intervention area were exposed to the slogan compared to 9 percent of those living in the comparison area.

In both areas, exposure to the slogan in the 2005 survey was only slightly higher than that observed in the 2004 survey. The higher levels of reported exposure to the program slogan and the program activities in the intervention areas in the 2004 survey confirmed our understanding that program-related activities had occurred prior to the initial survey. In addition, our expectation that the 2004 survey would provide valid baseline measures for two of the four program modules was undermined by the higher exposure in 2004 among intervention-area adolescents for all RH topics. While differences between the intervention and comparison communities in the 2004 survey may reflect these initial activities, they may also reflect preexisting differences between these communities arising from the prior activities of the NGOs or other factors.

To account for the lack of a true baseline in this study, the analyses presented in this report focuses on comparisons of the change between the two surveys in the intervention areas with the change between the two surveys in the comparison areas. Changes in the comparison areas between 2004 and 2005 were considered as secular trends that would have occurred without the additional intervention of the workshops, reflecting the other ARH interventions occurring in the study areas. Changes in the intervention areas that were greater than the secular trend observed in the comparison areas were attributed to the additional effect of the workshops. Multivariate analyses were used to assess whether the trends in the intervention areas differed significantly from the trends in the comparison areas.

This approach controlled for any preexisting differences between the intervention and comparison areas, including the effects of exposure prior to the 2004 survey and other potential interventions in the intervention areas, and the possible effects of unknown interventions in the comparison areas. In addition, the multivariate analysis controls for background characteristics, which were observed to differ between the two surveys and between the intervention areas.

### **Key Findings**

#### *Effects on Adolescents' Knowledge, Skills, and Behaviors*

Adolescents' knowledge of three reproductive health topics—pregnancy, contraception, and maternal health—increased significantly more between 2004 and 2005 in the intervention areas than in the comparison areas, suggesting a positive effect of the workshops. While knowledge of puberty and adolescence was higher in the intervention areas than in the comparison areas, the small change in this knowledge, relative to the trend observed in the comparison areas, suggests that this difference was not due to the program. Little change over time was observed for knowledge of HIV/AIDS in either the intervention or comparison sites.



The effects of the program on adolescents' life skills also appeared to be mixed. The program did appear to have positive effects on adolescents' self-esteem and perceptions of peer norms related to risky sexual behavior. Adolescents in the intervention areas experienced significantly greater changes in their self-esteem and in their perceptions of peer norms between 2004 and 2005 than did adolescents in the comparison areas. In addition, adolescents living in the intervention areas were able to list significantly more negative consequences associated with early childbearing (assumed to reflect greater critical thinking skills) in 2005 than in 2004, although no change was observed in the comparison areas. In contrast, there was no apparent effect of the program on adolescents' level of comfort with the changes that occur during adolescence or with their confidence in their problem-solving skills.

The program did not appear to affect parent-child communication about reproductive health. While both adolescents and parents in the intervention areas reported greater parent-child communication about reproductive health than those in the comparison areas, the lack of change between 2004 and 2005 suggests that this difference is not due to the workshops conducted between the two surveys.

There was some evidence that the program did reduce premarital sexual behavior among adolescent males. While the proportion of unmarried adolescent males reporting that they had ever had sex decreased significantly in the intervention areas between 2004 and 2005, there was no corresponding change in the comparison communities. No effect was seen on contraceptive use among married female adolescents.

#### *Effects on Household Norms*

The program did not appear to have an effect in parents' perceptions related to adolescent reproductive health. While some parents' perceptions related to the timing of girls' marriage, fertility, and adolescent decision-making within the household did increase between 2004 and 2005 in the intervention areas, these increases were matched by those observed in the comparison areas.

However, assessing the program effect on parents' perceptions was complicated by the high proportion of parents reporting favorable responses to many of the questions, particularly in the intervention areas. First, these high levels may have led to ceiling effects that limited the potential for change to occur. Second, it seems likely that many of these responses reflected socially desirable answers, rather than actual perceptions.

## Chapter 1

### Introduction

#### 1.1 Background

Adolescents between the ages of 10 and 19 years comprise one quarter of the total population of Bangladesh. Much like their peers in the rest of the world, adolescents in Bangladesh experience considerable anxiety and confusion arising from the range of biological, psychological, and social changes that occur during this time of life. Cultural norms in Bangladesh that discourage parent-child communication and formal health education programs for adolescents limit Bangladesh adolescents' access to information and contribute to their uncertainty about these changes.

Many adolescents in Bangladesh also experience considerable risks to their reproductive health. For females, much of this risk results from the early age at which many women in Bangladesh marry and begin childbearing. With half of all women becoming married by 15 years of age and nearly all women having their first child by 19 years of age (NIPORT et al., 2005), adolescent females in Bangladesh are exposed to high levels of pregnancy-related morbidity and mortality. Recent estimates indicate that Bangladeshi women between the ages of 15 and 19 years experienced 221 pregnancy-related deaths per 100,000 live births (NIPORT et al., 2003).

Although males in Bangladesh typically marry after adolescence, a growing number are initiating sexual behavior during adolescence. The 2004 DHS observed that only three percent of Bangladeshi males between the ages of 15 and 19 years were married, while nearly 20 percent of them reported having sexual intercourse. Anecdotal evidence suggests that adolescent males in Bangladesh often engage in unprotected, commercial sex (Rob and Mutahara, 2001) that increases their exposure to sexually transmitted infections. In the 2004 DHS, 40 percent of sexually active males between the ages of 15 and 19 years self-reported having a sexually transmitted disease in the 12 months before the survey.

These risks, combined with their limited access to information, contribute to the high levels of unmet need for reproductive health information and services among adolescents in Bangladesh. To address this need, Bangladesh Center for Communication Programs (BCCP), with funding support from the United States Agency for International Development (USAID) and technical assistance from the Johns Hopkins Bloomberg School of Public Health/Center for Communication Programs (CCP) under the Health Communication Partnership (HCP), has developed an integrated package of communication materials and mass media programs to improve the reproductive health of adolescents in Bangladesh.

This report presents results from a pilot study of the communication materials in selected communities.

#### 1.2 Overview of the Adolescent Reproductive Health (ARH) Communication Program

The ARH Communication Program is a mass media and community-level intervention designed to contribute to the overall goal of improving the reproductive health of adolescents in Bangladesh. The strategic approach for this program, developed through a participatory process with ARH Working Group members and other potential partners, addresses the information needs and psychosocial skills of adolescents and their guardians necessary for the informed and appropriate use of positive reproductive health

behaviors. The program aims to stimulate a process of social mobilization around the issue of adolescent reproductive health, through which individuals and organizations across Bangladeshi society become engaged in creating an enabling environment for adolescent reproductive health.

### **Program Objectives**

This program seeks to contribute to the ARH Working Group's overall objectives, which include:

- ❑ An increase in the proportion of sexually active adolescents using FP methods, including condoms
- ❑ An increase in the availability and use of adolescent-friendly services
- ❑ An increase in the proportion of adolescents engaging in appropriate health-seeking behavior
- ❑ An increase in the acceptance of puberty as a natural process among adolescents and their families
- ❑ A decrease in the prevalence of substance abuse among adolescent

### **The ARH communication program is expected to contribute to the objectives by increasing**

- ❑ The proportion of adolescents with specific knowledge and understanding of the physical and emotional changes experienced during adolescence
- ❑ The proportion of adolescents with knowledge and understanding of the physical and emotional consequences of early sexual behavior and early marriage
- ❑ The proportion of adolescents who discussed reproductive health matters with friends, peers, parents, relatives, neighbors, etc.
- ❑ The proportion of adolescent boys and girls who report that they have taken steps to delay marriage, sexual debut and first pregnancy
- ❑ The proportion of adolescents who can identify at least two correct modes of transmission and means of prevention of HIV and other sexually transmitted infections (STIs)
- ❑ The proportion of adolescents who can identify at least three correct methods of family planning
- ❑ The proportion of adolescents with knowledge and understanding of the problems associated with drug and alcohol abuse, tobacco use, etc.
- ❑ The proportion of adolescents reporting support by parent and community members of RH matters
- ❑ The proportion of adolescents who a) seek and b) report receiving accurate information and friendly advice on RH issues from peer group programs, education programs, and RH services, etc.

### **Audiences**

The ARH communication program is a multi-level program designed to affect multiple audiences:

- ❑ The primary audience for this program are adolescents between the ages of 10 and 19 years.
- ❑ The secondary audience are those individuals who shape adolescents' immediate social environment, including their parents and other family members, teachers, and health service providers.

- The tertiary audience are those groups who set or influence policies and cultural norms in the community, including community and religious leaders, district officials, and national leaders.

### **Program Activities/Interventions**

The ARH Communication Program is using multiple channels and approaches to reach these audiences. They include:

- ARH information booklets on puberty, relationships, HIV/AIDS, and marriage and family health
- ARH videos, use entertainment-education to present information on life skills and RH topics through youth-led discussions and skits
- Life Skills Video Facilitators' Guides to accompany each of the ARH videos
- Training facilitators to use the ARH Life Skills Facilitators' Guide
- ARH sensitization sessions at the Upazila level to inform and seek feedback from key stakeholders
- Implementation of intensive ARH Life Skills curriculum with local NGOs
- 52-episode radio magazine program
- 26-episode TV magazine program
- 16 comic book series
- Bi-monthly newsletters
- Leaflets for parents

A logo and the ARH slogan "Nijeke Jano" or "Know Yourself" package these activities as a unified program for promoting adolescent reproductive health.

### **1.3 Pilot Intervention**

The toolkit of materials and approaches for community-based organizations were tested in a year-long pilot intervention in three upazilas with six local NGO partners. These NGOs conducted a one-day orientation workshop with different stakeholders, including the Government of Bangladesh (GOB) and local service providers; a one-day sensitization session in each project community with community leaders and school teachers; and a two-hour orientation for parents, including video screenings of the communication materials.

In each pilot community, four-day Life Skills Workshops were conducted with adolescent boys and girls from schools, madrashas, and colleges; with out-of-school adolescents; and with married adolescents. A total of 3360 adolescent boys and girls attended these workshops during the one-year pilot intervention. During these workshops, the participants watched the videos entitled "Puberty" and "New Feelings, New Passions" in the first phase. These videos included information on the physical and emotional changes experienced during adolescence. In the second phase the videos were entitled "Risk of HIV/AIDS & STIs" and "Preparing for Marriage and Family Life."

A large number of ARH materials were distributed among the adolescents and their parents/teachers, including a total of 4500 "Know Yourself" booklets on "Puberty," "New Feelings and New Passions," "Risk to HIV/AIDS and STIs," and "Preparing for Marriage." Approximately 1000 brochures were distributed to parents and 4500 copies of newsletters were distributed to adolescents during the pilot period. Adolescents in the pilot communities also received four comic books on specific issues, namely, menstruation, wet dreams, peer pressure, and new feelings, new passions. Finally, six adolescent-friendly health corners were established in health facilities to encourage the use of health services among adolescents.

A separate evaluation is planned for the mass media components of the program.

#### **1.4 Objectives of the Study**

The overall objective of the present study is to assess the communication impact resulting from the intervention implemented by BCCP and its NGO partners.

The specific objectives for the focused community assessment were:

- ❑ To measure the reach of the ARH communication materials among its intended audiences
- ❑ To measure the change in knowledge, attitudes and behavior related to reproductive health issues among adolescents and their parents
- ❑ To provide ongoing formative research for subsequent program phases

## Chapter 2

### Methodology

#### 2.1 Study Design

Representative surveys in 2004 and 2005 provided the data for this assessment. These surveys included samples of:

- ❑ *Adolescents – boys and girls between the ages of 13 and 19 years*
- ❑ *Parents or guardians (other adult family members) of adolescents*

The parent/guardian survey provided an opportunity:

- to obtain a listing of all adolescents between the ages of 13 and 19 years to complete the sampling frame
- parents' attitudes and beliefs that may determine the household-level factors that influence the reproductive health behaviors of the adolescents
- to discuss the importance of the study with the parent and maximize the number of selected households providing consent for the adolescent survey

#### Study Sites

The study was conducted in 6 unions of 3 Upazilas, which were selected to represent three different parts of Bangladesh. In each Upazila, one union received the pilot test of the ARH activities. The three intervention unions were:

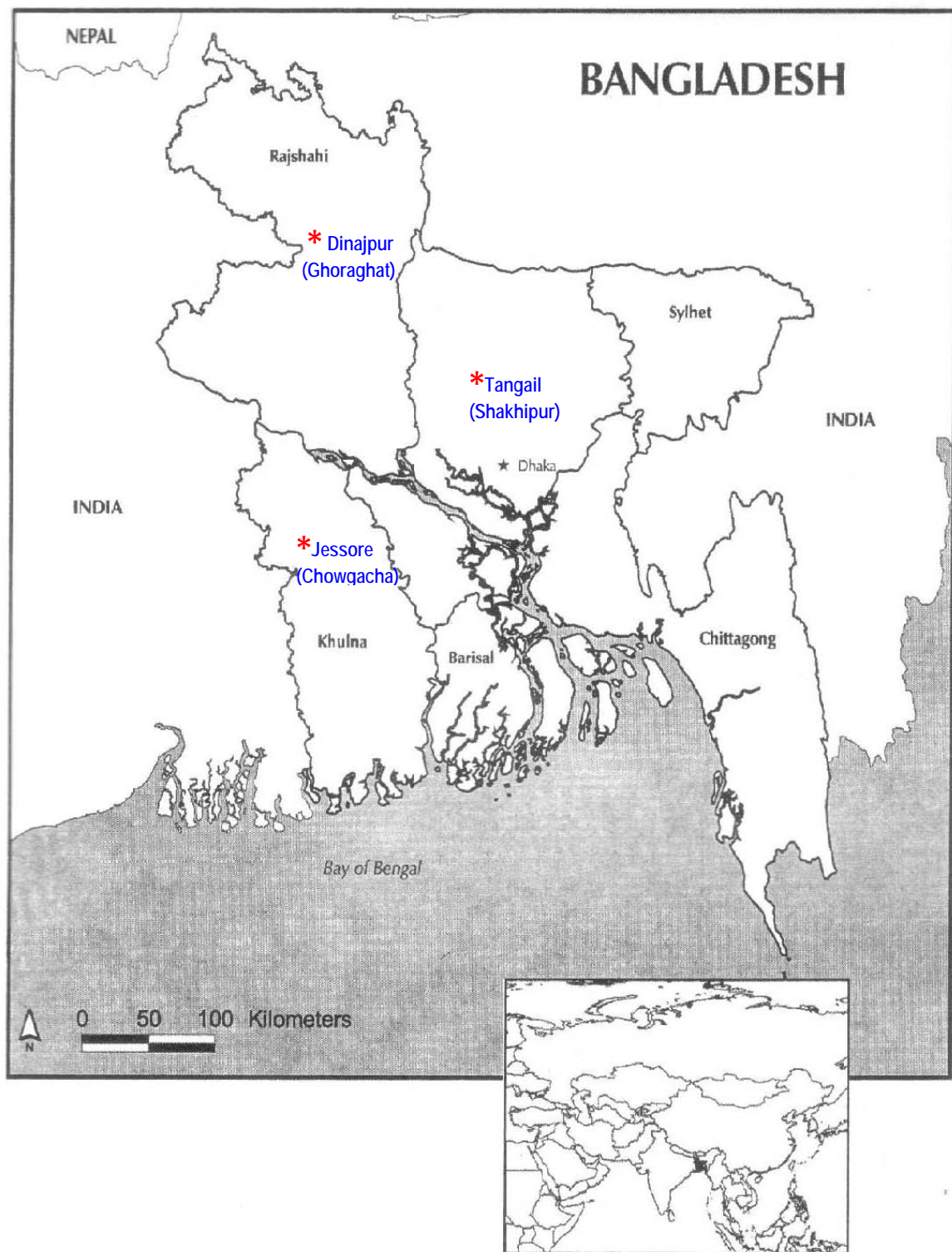
- ❑ Gazaria in Shakhipur Upazila under Tangail district;
- ❑ Sadar in Ghoraghat Upazila under Dinajpur district; and
- ❑ Hakimpur in Chowgacha Upazila under Jessore district.

A second union was selected from the remaining rural unions within each of the three Upazilas to serve as a comparison area. Unions adjacent to the pilot test sites (i.e. intervention unions) were excluded from consideration to reduce the possibility that comparison sites were influenced by program activities. The three Comparison unions were:

- ❑ Kakrajan in Shakhipur Upazila under Tangail district;
- ❑ Bulakpur in Ghoraghat Upazila under Dinajpur district; and
- ❑ Pashapole in Chowgacha Upazila under Jessore district.

A map is provided to illustrate the location of the study sites.

### Map of Bangladesh: The Spread of the Sample Sites



## Sample Selection

Each study union was divided into mauzas and, within each union, nine mauzas were selected following a systematic random sampling procedure. These mauzas were further subdivided into smaller units, or clusters, that reflect coherent communities. These clusters constituted the primary sampling units (PSUs) of the study. The 2nd cluster was selected as the survey area for mauzas with less than 4 clusters. For more than 4 clusters, the fourth cluster was the survey area. Selected Mauzas with fewer than 200 households were considered to be a single cluster. Overall, 54 PSUs were selected as sites for the focused community assessments. The sampling design was developed jointly by BCCP, CCP and ACNielsen.

## Sample Size

Structured household-based surveys served as the centerpiece of the focused community assessment. All households within the selected PSUs were contacted and households with an adolescent between the ages of 13 and 19 years of age were listed.

Within each selected household, one parent or guardian and one male and one female member between the ages of 13 and 19 years were considered eligible for the survey. Thus, the proposed sample size for each survey, within the intervention (pilot) unions, was a total of 486 adolescent boys, 486 adolescent girls, and 640 parents or guardians. Similar numbers of interviews were proposed within the comparison study unions.

Overall, each survey was expected to have a total sample of 972 adolescent boys, 972 adolescent girls and 1620 parents/guardians. The 2004 survey obtained completed interviews from 849 adolescent males, 843 adolescent females, and 1,203 parents or guardians. The 2005 survey obtained completed questionnaires from 919 adolescent boys, 908 adolescent girls, and 1,276 parents or guardians.

Table 2.1 provides detailed numbers on response rates in the 2 surveys.

Area	2004 Survey								
	Adolescent Boys			Adolescent Girls			Parents/Guardians		
	Target	Actual	Non-response	Target	Actual	Non-response	Target	Actual	Non-response
Intervention	486	441	9%	486	441	9%	810	608	25%
Comparison	486	408	16%	486	412	15%	810	595	27%
Area	2005 Survey								
	Adolescent Boys			Adolescent Girls			Parents/Guardians		
	Target	Actual	Non-response	Target	Actual	Non-response	Target	Actual	Non-response
Intervention	486	458	6%	486	456	6%	810	640	21%
Comparison	486	461	5%	486	452	8%	810	636	21%



## Non-response

There were cases of non-response from potential study participants, including cases of non-availability in selected households, especially among the parents/guardians due to their work schedules. In this situation, the interview was conducted without replacement. Every effort was made to interview all the sample households. Interviewers made two attempts to interview the sample respondent before deeming a sample respondent a non-response.

## Data Description

Data have been collected from primary (adolescents) and secondary (parents/guardians) respondent groups. The topics in the **adolescent** questionnaire included:

- Knowledge of the physical and emotional changes during puberty/adolescence
- Perceived risk of reproductive health problems
- Knowledge on HIV/AIDS
- Knowledge on other STIs
- Knowledge of pregnancy, contraception and complications during pregnancy and childbirth
- Awareness on the ways of avoiding HIV/AIDS and other STIs
- Perceptions of reproductive health behaviors
- Interpersonal communication with peers, parents, and others regarding reproductive health
- Life skills
- Ideal age of marriage
- Ideal age of having children
- Sexual activities
- Condom use
- Exposure to media and ARH materials
- Perceived ability to effectively manage one's reproductive health
- Perceptions and use of reproductive health services in the community
- Use of positive reproductive health behaviors

The **parent/guardian** questionnaire included:

- Frequency of discussion with adolescents in the household on such topics as sexuality, family planning, and drug and alcohol use
- Level of support given to adolescents regarding their use of positive reproductive health behaviors
- The importance of education for adolescent males and females in the community
- The appropriate timing of marriage for males and females in the community
- The appropriate gender roles for males and females in the community
- The physical and emotional changes experienced during adolescence
- Perceptions of adolescent autonomy in decision-making regarding their reproductive health, including the use of family planning and condoms
- Attitude regarding the provision of reproductive health services to adolescents in the community
- Exposure to the ARH Communication Program messages

## Pre-testing and Finalization of Questionnaires

Questionnaire pre-testing and finalization adhered to the following procedure:

1. BCCP and CCP designed the draft questionnaires. ACNielsen Bangladesh carried out the pre-testing.
2. Based on pre-test findings to evaluate the translation, consistency and integrity of the questionnaires, ACNielsen finalized the questionnaires and sent them to BCCP and CCP for final approval.
3. After approval of the Bangla version of the questionnaires, ACNielsen printed the Bangla questionnaires and incorporated the pre-test changes into the English versions.

## 2.2 Data Collection

Fieldwork for the first survey was conducted over a period of 18 days between February 16 and March 4, 2004 and fieldwork for the second survey was conducted for a period of 21 days between June 22 and July 11, 2005. Both involved quantitative techniques of data collection. ACNielsen administered the survey to respondents according to the sampling plan discussed above. ACNielsen tracked the number of the following types of individuals:

- ❑ Respondents approached but not meeting sampling criteria (ineligible)
- ❑ Respondents meeting criteria but not available during the time of the interview (non-response)
- ❑ Respondents who were available, but refused to participate (non-response)
- ❑ Respondents completing questionnaire (successful contact)

Considering the sensitivity of the subject matter of the questionnaire, special attention was given to minimize the reluctance of the respondents to talk about their experience or behavior, which may be embarrassing or socially discouraged. The following approaches were followed to minimize the reluctance of the respondents to participate:

- ❑ Interviewers worked to establish a proper rapport with the respondents in order to gain their trust.
- ❑ Female interviewers collected data from the female respondents.
- ❑ The interviewers attempted to conduct the interviews in privacy since the respondent may feel more free to talk about sexual behavior when interviewed away from the domestic setting. When a private environment was not available, questionnaires were administered in isolated places and sometimes away from home.
- ❑ In some cases, repeated visits were made to some of the reluctant respondents to break down communication barriers.
- ❑ Each interviewer made at least two attempts to call upon each assigned respondent before he/she was considered unavailable.

## Fieldwork

In the field, male and female interviewers, quality controllers, field supervisors, and field managers were involved in the field operation. Similar previous experiences of the field personnel helped them in collecting personal information from the respondents regarding their knowledge, attitude and practices relating to ARH, HIV/AIDS and STIs, as well as in building relationships within the study communities.

## 2.3 Data Processing and Analysis

Quantitative data processing involved the following steps, under the guidance of the Analysis Manager who worked in close coordination with the Principal Investigator and Statistical Advisor:

- ❑ Questionnaire registration and editing
- ❑ Edit verification
- ❑ Listing of open-ended responses and classification
- ❑ Coding<sup>1</sup> and code transfer
- ❑ Verification of coding and code transfer
- ❑ Development of data entry structure
- ❑ Data entry and entry verification
- ❑ Entering data according to the questionnaire structure in FoxPro 2.6 version
- ❑ Editing data
- ❑ Verifying the logic and accuracy of the database  
(in Clipper 5.3 version-language programming and C language programming)
- ❑ Keeping and maintaining data backups
- ❑ Development of analysis plan
- ❑ Data analysis in Quantum and SPSS 11.0
- ❑ Writing report

#### **2.4 Ethical Issues**

ACNielsen Bangladesh has taken every possible step to ensure ethical standards in completing this baseline study. Since ACNielsen Bangladesh is a member of ESOMAR (Brussels) and MRS (UK), adequate measures are taken towards maintaining ethical standards at all stages. Measures were taken to protect the rights of participants in the study and interviewers explained the purpose of the study before information was collected from the respondents. All adolescents were given the Informed Consent Form before taking part in the survey, where the nature of the survey subject material was explained. All possible steps are taken to ensure confidentiality and privacy of respondents. This survey was approved by the Johns Hopkins Bloomberg School of Public Health's Committee for Human Subjects.

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<sup>1</sup> Mainly assigning numerical values to non-numerical types of variables and listing non-numerical values in order.

## Chapter 3

### Adolescent Respondents

#### 3.1 Background Characteristics

Differences in knowledge, attitudes, and behaviors between the two surveys or between the intervention and comparison communities may reflect differences in the composition of the samples. To assess whether the samples are composed of similar individuals, this section compares the 2004 and 2005 samples and the intervention and comparison samples for selected background characteristics.

##### Gender

Since the sampling design stratified respondents by gender, no differences were reported in the gender composition between the 2004 and 2005 surveys or between the intervention and comparison samples. Male and female adolescents each comprised half of the intervention and comparison samples in both surveys.

##### Age

Adolescents in the 2005 survey were slightly older than those in the 2004 survey. In 2004, the mean age of the adolescents was 15.6 years, while in the 2005 survey, the mean age was 15.9 years ( $p < 0.05$ ). No difference in age was observed between the intervention and comparison sites.

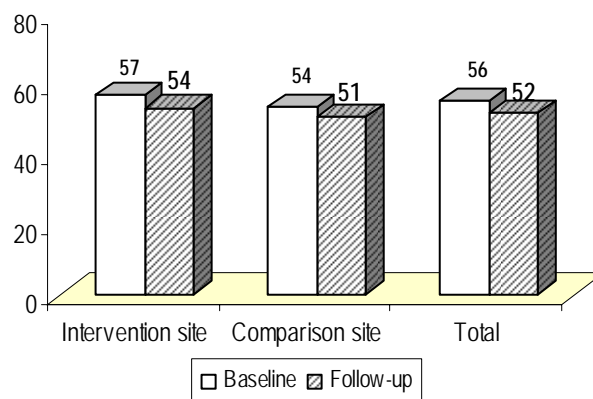
##### Education

Overall school attendance did not differ between the 2004 and 2005 surveys or between the intervention and comparison sites. In both surveys, more than 90 percent of adolescents in both intervention and comparison sites had ever attended school (Table 3.1). School attendance was slightly higher among female adolescents than males; 94 percent of female respondents had ever attended school compared to 93 percent of male respondents (Appendix Table A-1).

Current school attendance was lower in the 2005 survey, possibly reflecting the age differences between the surveys. Fifty-two percent of the adolescents in the 2005 survey were currently attending school, compared to 56 percent in the 2004 survey (Figure 3.1). In both 2004 and 2005, adolescents in the intervention sites were slightly more likely than those in the comparison sites to still be enrolled in school. In both surveys, fewer females than males were currently attending school.

A higher percentage of female adolescents reported completing higher education levels in both intervention and comparison sites than male adolescents. In the 2005 survey, 58 percent of males in the intervention sites and 61 percent in the comparison sites had attained their Secondary School Certificate (SSC) or above, compared to 70 percent of females in the intervention and comparison areas (Appendix Table A-2).

Fig 3.1. Current school attendance among adolescents



**Table 3.1: Percentage Distribution of Adolescents by Age, Religion, and Educational Status**

Background Characteristics	Intervention sites		Comparison sites	
	2004	2005	2004	2005
Mean age (in years)	15.5	16.0	15.6	15.9
<b>Religion:</b>				
Islam	93.7 <sup>ab</sup>	94.9 <sup>a</sup>	83.3	90.7
Hinduism	4.8 <sup>b</sup>	2.2 <sup>a</sup>	14.5 <sup>b</sup>	7.7
Others <sup>1</sup>	1.6	2.9	2.2	1.6
<b>Education level:</b>				
Have ever attended School	94.6	92.9	92.7	94.4
Primary complete	55.9	54.3	60.4	53.9
Secondary +	44.2	45.6	39.5	45.9
Can read easily	43.2 <sup>ab</sup>	26.5	27.4	31.9
Can write easily	44.5 <sup>ab</sup>	29.1	35.7	33.4

<sup>1</sup>others include Christians, Buddhists, Saotals, and so on;

<sup>a</sup>Intervention sites-comparison sites comparison:  $p < 0.05$ ;

<sup>b</sup>FCA 1st wave-2nd wave comparison:  $p < 0.05$

### Working Status and Income

While the proportion of adolescents working for pay did not differ between 2004 and 2005 in the intervention areas, the proportion of adolescents in the comparison areas that were currently working for pay increased between 2004 and 2005. Among adolescents in the comparison sites, 20 percent were currently working for pay in the 2005 survey compared to 15 percent in the 2004 survey ( $p < 0.01$ ). Adolescents in the intervention sites were more likely than those in the comparison sites to be working for pay in the 2004 survey, although there was no difference between the intervention and comparison sites in the 2005 survey.

Males were more likely than females to be involved in income-generating activities. In the 2005 survey, more than one-third of males in both the intervention and comparison communities were currently working for pay. Among females, only 10 percent in the intervention communities and 5 percent in the comparison communities were currently working for pay (Appendix Table A-3). The average monthly income among currently working adolescents did not differ between the two surveys or between the intervention and comparison communities. In the intervention areas, the average monthly salary was Tk. 1387<sup>2</sup> in the 2004 survey and Tk. 1287 in the 2005 survey. In the comparison sites, working adolescents reported earning Tk. 1214 per month in the 2004 survey and Tk. 1321 per month in the 2005 survey. Males tended to earn more than females. In the intervention area, the average monthly salary was Tk. 1541 for males and Tk. 468 for females. In the comparison sites, males reported earning Tk. 1442, while females reported earning only Tk. 557 per month (Appendix Table A-3).

<sup>2</sup> Tk. (Taka) = Bangladeshi currency

**Table 3.2: Percentage Distribution of Adolescents by Working status, Income and Control over earnings**

Working status & Income	Intervention sites		Comparison sites	
	2004	2005	2004	2005
Currently working	20.1 <sup>a</sup>	23.5	15.1 <sup>b</sup>	20
<b>Salary, last working month (BDT)</b>				
Up to 500	26.4	32.3	29.7	27.9
501-1000	19.8	19.8	25.4	15.8
1001-1500	22.2	15.9	18.8	21.6
1501-2000	11.3	14.7	9.4	20
2001-2500	4.2	3	5.1	2.6
2501+	16	14.2	11.6	12.1
Average income	1387.1	1286.9	1214.1	1321.4
<b>Control over earnings</b>				
Myself	34.9 <sup>ab</sup>	62.5 <sup>a</sup>	28.3 <sup>b</sup>	78.4
Mother/ father	59.9	64.2	65.9	65.3
My spouse	2.8	0	0	0
Brother/ sister	1.4	5.2	4.3	6.3

<sup>a</sup>Intervention sites-comparison sites comparison:  $p < 0.05$ ;

<sup>b</sup>FCA 1st wave-2nd wave comparison:  $p < 0.05$

Compared to the 2004 survey, more working adolescents reported having some control of their earnings in the 2005 survey in both the intervention (63 percent in 2005 vs. 35 percent in 2004) and comparison areas (78 percent in 2005 vs. 28 percent in 2004). Working adolescents in the comparison areas were more likely than those living in the intervention areas to report controlling their earnings in the 2005 survey, although there was no difference in the 2004 survey.

### Marital Status

A greater proportion of respondents in the 2005 survey were married. In the 2004 survey, 15 percent of respondents were married, while 20 percent of respondents in the 2005 survey were married. No differences were reported in the proportion of married respondents between the intervention and comparison areas in either survey. Most of the married respondents were female. In the 2004 survey, 26 percent of female respondents and five percent of male respondents were married. In the 2005 survey, 38 percent of females and only 2 percent of male respondents were married.

Among those who were married, the mean age at marriage was approximately 15 years. The mean age at marriage did not differ between 2004 or 2005 or between intervention and comparison communities. The median age at marriage, measured as the age with 50 percent of married respondents, among females was slightly greater than 17 years.

**Table 3.3: Percentage Distribution of Adolescents by Marital Status and age at marriage**

Marital Status	Intervention sites		Comparison sites	
	2004	2005	2004	2005
Married	13.7 <sup>b</sup>	18.2	14.4 <sup>b</sup>	20.4
Unmarried	85.5 <sup>b</sup>	81.2	84 <sup>b</sup>	79.1
Others <sup>1</sup>	0.8	0.7	1.6 <sup>b</sup>	0.5
<b>Reported Age at marriage</b>				
11	3.9	1.2	2.3	2.1
12	7	5.2	13	9.4
13	14.1	14	19.8	14.7
14	14.1	16.3	16	16.2
15	18	21.5	18.3	17.3
16	13.3	23.3	10.7	12.6
17	13.3	8.7	13	11
18	10.2	6.4	3.1	9.9
19	5.5	0.6	1.5	3.1
<b>Mean age at marriage (in years)</b>	15.1	14.9	14.4	14.9

<sup>1</sup>Other: separated/widowed

<sup>a</sup>Intervention sites-comparison sites comparison:  $p < 0.05$ ;

<sup>b</sup>FCA 1st wave-2nd wave comparison:  $p < 0.05$

### Pregnancy Status and Number of children

Overall, 60 percent of married adolescent females in the study reported ever being pregnant and 12 percent reported currently being pregnant. While the proportion of married females that were ever or currently pregnant did not significantly differ between the two surveys, married females in the comparison areas were somewhat less likely to have ever been pregnant in the 2005 survey than in the 2004 survey. In the 2004 comparison sample, 69 percent of married women were ever pregnant and 15 percent were currently pregnant. In contrast, among married females in the 2005 comparison sample, 61 percent of married females were ever pregnant and 8 percent were currently pregnant. In the intervention areas, a similar proportion of married females in both surveys were either ever or currently pregnant.

Fifty percent of married females in the 2004 survey and 45 percent in the 2005 survey had at least one child. The proportion of married females with a child was similar in 2004 and 2005 for both the intervention and comparison sites. In both surveys, married females in the comparison communities were more likely than females in the intervention communities to have at least one child (Table 3.2).

**Table 3.4: Percentage distribution of married female adolescents, ever pregnant, currently pregnant and number of living children**

Pregnancy Status & Number of children	Female			
	Int.		Com.	
	2004	2005	2004	2005
Ever pregnant	52.9 <sup>a</sup>	55.8	68.7	60.8
Currently pregnant	9.4	11.1	15.3	8.4
Number of living children				
0	66.4	61.6	51.9	55.0
1	26.6	35.5	44.3	40.3
2	7.0	2.9	3.1	4.2
3	0.0	0.0	0.8	0.5

<sup>a</sup>Intervention sites-comparison sites comparison:  $p < 0.05$ ;

<sup>b</sup>FCA 1st wave-2nd wave comparison:  $p < 0.05$

### Exposure to Media

Mass media use may also affect adolescents' reproductive health knowledge, attitudes and behaviors. Through these channels, adolescents may be exposed to specific program messages that explicitly promote reproductive health issues as well as the implicit messages communicated through popular programs. Differences in media use may affect comparisons of adolescents' knowledge, attitudes, and behaviors between the 2004 and 2005 surveys or between the intervention and comparison communities.

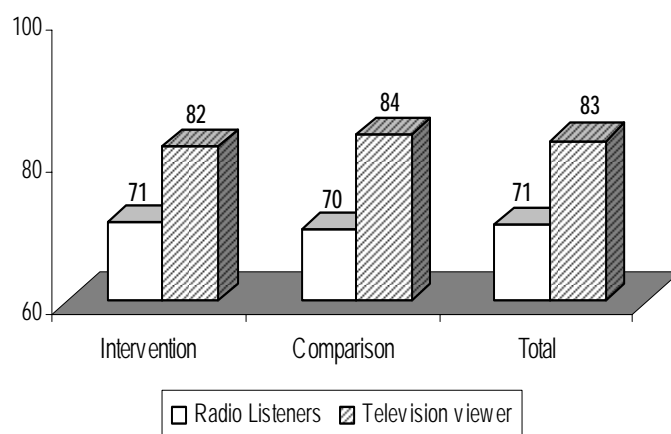
#### Radio

Overall listenership to the radio did not differ between the 2004 and 2005 surveys or between the intervention and comparison communities. Approximately 70 percent of adolescents in both surveys and in both study areas reported that they listened to the radio.

Frequent radio use, however, was significantly higher in the 2005 than in 2004. Thirty-two percent of adolescents reported listening to the radio every day in 2005, compared to 29 percent of adolescents in 2004 ( $p < 0.05$ ). In addition, adolescents in the intervention areas were more likely than adolescents in the comparison areas to listen to the radio every day. While 33 percent of adolescents in the intervention areas reported daily use of the radio, 29 percent of their counterparts in the comparison areas did so ( $p < 0.01$ ).

A higher proportion of males than females reported listening to the radio frequently. Among the radio listeners, most reported listening to the radio at home (59 percent), with others listening at a neighbor's house (25 percent) and at relatives' house (10 percent) (Appendix Table A-5).

Figure 3.2. Adolescent's exposure to media, 2005





### Television

Overall television use did not differ between the 2004 and 2005 surveys. At both times, slightly more than 80 percent of adolescents reported that they watched television. Television watching was somewhat more common in the intervention areas, where 84 percent of adolescents watched television compared to 81 percent of adolescents in the comparison areas.

Frequent television use appears to have increased between 2004 and 2005. Twenty-six percent of adolescents reported watching television every day in 2005, compared to 22 percent of adolescents in 2004. Frequent television use was also higher in the intervention areas. Twenty-eight percent of adolescents in the intervention areas watched television every day, compared to 21 percent in the comparison areas.

Similar to radio listening, a significantly higher proportion of males reported watching television. Among the adolescent television viewers, most reported watching television at a neighbor's house (48 percent), with fewer watching television at home (27 percent) or at a relative's house (19 percent).

Bangladesh Television (BTV) was the most common television channel, watched by all television viewers in both the intervention and comparison areas. The adolescents in the study did not report watching other local (NTV, ATN and Channel I) or international satellite channels.

### Newspaper

Newspaper use was somewhat higher in 2005 than in 2004 and in the intervention areas than the comparison areas. Thirty-two percent of adolescents in the 2005 sample reported reading newspapers, compared to 29 percent of adolescents in the 2004 sample. Thirty-five percent of adolescents reported reading newspapers, compared to 25 percent of adolescents in the comparison areas.

Daily newspaper use was also somewhat higher in the 2005 survey and among adolescents in the intervention areas. Five percent of adolescents in the 2005 survey reported reading a newspaper every day, compared to four percent in the 2004 survey ( $p < 0.01$ ). In addition, six percent of adolescents in the intervention areas read a newspaper daily, compared to three percent of adolescents in the comparison areas.

### Exposure to ARH Messages on Media

Reflecting the higher media use in the 2005 survey, respondents in 2005 were more likely than those in 2004 to report exposure to information about reproductive health in the mass media in the past year. In 2005, 89 percent of adolescents reported hearing or seeing some message about reproductive health in the mass media, compared to 84 percent in the 2004 survey ( $p < 0.001$ ).

Exposure to reproductive health messages in the mass media was also somewhat higher among adolescents in the intervention areas than the comparison areas. Overall, 88 percent of adolescents in the intervention areas had heard or seen a message about reproductive health in the past year. In the comparison areas, 85 percent of adolescents had heard or seen a reproductive health message ( $p < 0.05$ ).

Among the respondents who reported hearing or seeing RH messages on television or radio, more than 80 percent of them reported hearing or watching messages on postponing early marriage and on dowry, and more than 70 percent reported hearing messages on contraception or family planning and HIV/AIDS (Appendix Table A-6).

**Table 3.5: Percentage Distribution of Adolescents by Exposure to Media, 2005**

Media Exposure	Intervention sites		Comparison sites	
	Male	Female	Male	Female
Radio Listeners	73.8	68.4	75.1	65.3
Place to listen to radio				
Home	62.1	56.4	59.2	58.6
Next door house	15.1	30.8	23.1	31.9
Relative's house	10.9	11.9	7.8	9.2
Market place	1.5	0	3.5	0
Shop	6.5	0	3.5	0.3
Friend's place	2.4	0.6	2.3	0
Television viewer	85.2	78.5	90.9	76.1
Place to watch TV				
Home	31.3	33.5	17.7	25.3
Next door house	36.4	45.5	52.5	58.4
Relative's house	21.3	20.4	18.9	15.1
Market place	5.6	0.3	6.2	0
Friend's place	1.3	0.3	0.2	0
Newspaper reader	58.3	38.3	44.4	29.2
Where to read newspaper				
Home	9.5	56.4	7.5	52.8
Market place	7.4	2.1	5.4	0
School/ college/ madrasha	5.3	9.3	10.9	29.2
Library	10	4.3	5.4	0.9
Club	2.1	2.1	1.4	0.9

### 3.2 Exposure to ARH Activities

#### Exposure to "Know Yourself" Slogan

To assess exposure to the materials disseminated by the program, respondents were asked whether they had ever seen or heard the slogan "Nijeke Jano" (Know Yourself). This slogan was incorporated into the program logo and had appeared on all program materials.

As expected, a significantly higher proportion of adolescents in the intervention area reported hearing or seeing the program slogan on a video or on a booklet compared to their counterparts in the comparison areas. Exposure to the program slogan was higher in the intervention areas in both 2004 and 2005 surveys, reflecting the presence of intervention activities before the 2004 survey. Among adolescents in the intervention areas, 47 percent reported seeing or hearing the slogan in 2004 and 51 percent recalled the slogan in 2005. In the comparison areas, two percent of respondents in 2004 and five percent in 2005 reported seeing or hearing the program slogan. Recall of the program slogan did not differ between 2004 or 2005 in either the intervention and comparison areas.

#### Exposure to ARH messages at community events

To measure participation in the intervention activities, respondents were asked whether they had participated in a group meeting or attended a video display about ARH in the year preceding the survey. Consistent with reported exposure to the slogan, reported participation in ARH events was significantly higher in the intervention areas than in the

comparison areas in both 2004 and 2005. In 2004, 32 percent of adolescents in the intervention areas and 4 percent in the comparison areas reported attending a group meeting or video display about ARH in the previous year. In 2005, 34 percent of adolescents in the intervention areas and 6 percent in the comparison areas had attended a group event or video display about ARH in the previous year.

Since the activities preceding the 2004 survey had only used the first two modules of the program, the effects of the 2004 exposure were expected to be limited to the content of these modules. As expected, reported exposure to information contained in these modules – puberty, adolescence, and relationships (including sexual harassment) – were significantly higher in the intervention areas than the comparison areas in both 2004 and 2005.

Unexpectedly, reported exposure to other reproductive health topics was also higher in the intervention than the comparison areas in both the 2004 and 2005 surveys. While it is unclear what prompted the higher level of exposure to information in the two program modules used only after the 2004 survey, it may reflect the unscripted nature of the community events. While the workshops may have only used the modules on puberty, adolescence, and relationships, the discussions prompted by these topics may have led naturally to discussions of pregnancy, contraception, and sexually transmitted infections.

### **3.3 Analytic approach to assess effects of intervention**

The higher levels of reported exposure to the program slogan and the RH messages in community activities in the intervention areas in the 2004 survey confirmed our understanding that ARH program-related activities had occurred prior to the initial survey. In addition, our expectation that the 2004 survey would provide valid baseline measures for two of the four program modules was undermined by the higher exposure in 2004 among intervention-area adolescents for all RH topics. While differences between the intervention and comparison communities in the 2004 survey may reflect these initial activities, they may also reflect preexisting differences between these communities arising from the prior activities of NGOs or other factors.

The following analysis will assess the effects of the Life Skills workshops and related materials on adolescents' knowledge on reproductive health, their perceived life skills, their communication with parents regarding reproductive health, and selected risk behaviors. This analysis will focus on comparisons of the change for these indicators between the two surveys in the intervention areas with the change between the two surveys in the comparison areas. Changes in the comparison areas between 2004 and 2005 will be considered as secular trends that would have occurred without the additional intervention of the workshops, reflecting the other ARH interventions occurring in the study areas. Changes in the intervention areas that are greater than the secular trend observed in the comparison areas can be attributed to the additional effect of the workshops.

Multivariate analyses were used to assess whether the trends in the intervention areas differed significantly from the trends in the comparison areas. A positive difference between these two trends indicates that the increase in the intervention area was significantly greater than the trend in the comparison area. A negative difference indicates that the increase in the intervention area was significantly less than the trend in the comparison area. Non-significant comparisons between the trends indicate that the change over time in the intervention area was similar to the change observed in the comparison area. These tests are presented in the Trend Comparison column in each table.

This approach controls for any preexisting differences between the intervention and comparison areas, including the effects of exposure prior to the 2004 survey and other potential interventions in the intervention areas, and the possible effects of unknown

interventions in the comparison areas. In addition, the multivariate analysis will control for background characteristics, which were observed to differ between the two surveys and between the intervention areas.

### 3.4 Knowledge of Adolescent Reproductive Health Issues

One objective of the program was to increase adolescents' knowledge of reproductive health issues. To assess the effects of the program, the survey asked respondents about a range of reproductive health topics, including: puberty and adolescence, pregnancy, contraception, maternal health, and HIV/AIDS and other sexually transmitted infections.

#### Puberty and Adolescence

While knowledge of puberty and adolescence was generally higher in the intervention areas than in the comparison areas, the change in knowledge between 2004 and 2005 did not differ between the intervention and comparison areas.

Awareness of the terms "puberty" and "adolescence" did not increase over time in either the intervention or comparison areas. In both 2004 and 2005, approximately half of all adolescents living in the intervention areas and 20 percent of adolescents living in the comparison areas were aware of either of these terms.

Awareness of the physical changes that occur to males during adolescence did increase over time, although similar increases were observed in both the intervention and comparison areas. The percent of respondents aware of at least two physical changes that occur to males during adolescence increased from 43 percent in 2004 to 54 percent in 2005 in the intervention areas and from 24 percent to 40 percent in the comparison areas.

Knowledge of the physical changes that occur to females increased between 2004 and 2005 in the comparison areas, but not in the intervention areas. In 2004, 43 percent of adolescents in the comparison areas knew at least two changes that occur to females during adolescence, which rose to 58 percent of comparison-site adolescents in 2005. In both surveys, approximately two-thirds of the respondents in the intervention sites were able to name two physical changes that occur to females during adolescence.

**Table 3.6: Awareness of Adolescence and Puberty among Adolescents**

	Intervention sites		Comparison sites		Trend comparison
	2004	2005	2004	2005	
% aware of the terms "adolescence" or "puberty"	52.7 <sup>a</sup>	52.0 <sup>a</sup>	22.3	18.8	NS
% aware of at least two changes that occur to males during adolescence	43.3 <sup>ab</sup>	54.4 <sup>a</sup>	24.0 <sup>b</sup>	39.5	NS
Average number of changes that occur to females during adolescence	63.8 <sup>a</sup>	67.9 <sup>a</sup>	43.3 <sup>b</sup>	58.4	NS

<sup>a</sup>Intervention sites-comparison sites comparison:  $p < 0.05$ ;

<sup>b</sup>FCA 1st wave-2nd wave comparison:  $p < 0.05$

Results adjusted for age, gender, marital status, level of education, current enrollment in school, religion, frequent use of mass media, and reported exposure to reproductive health information on mass media

### Contraception

Between 2004 and 2005, knowledge of contraceptive methods increased significantly more among adolescents living in the intervention areas than among those living in the comparison areas ( $p < 0.001$ ). Adolescents in the intervention areas knew, on average, 1.9 contraceptive methods in 2004 and 2.3 contraceptive methods in 2005. In the comparison areas, adolescents knew an average of 2.0 contraceptive methods in 2004 and 2.2 contraceptive methods in 2005. While knowledge of contraceptive methods was higher in the comparison areas in 2004, it was higher in the intervention areas by 2005. Females consistently knew more contraceptive methods than males.

Oral contraceptive pills and condoms were the most commonly known methods among adolescents. Nearly all adolescents were aware of oral contraceptives and over 90 percent were aware of condoms. Injectables were known by half of all respondents in both the intervention and comparison sites (Appendix Table A-7).

### Pregnancy

Knowledge of pregnancy increased significantly more in the intervention areas than in the comparison areas between 2004 and 2005. Three items were used to assess adolescents' knowledge of pregnancy, with two of these items increasing significantly more in the intervention area.

Awareness of the time during the menstrual cycle when a woman is most likely to become pregnant increased in the intervention area, but not in the comparison area, between 2004 and 2005. In the intervention areas, the percent of adolescents aware that a woman is most likely to become pregnant in the middle of her menstrual cycle increased from 5 percent in 2004 to 8 percent in 2005. In the comparison areas, the percent of adolescents aware of this remained essentially unchanged, with 6 percent in 2004 and 5 percent in 2005 correctly identifying the middle of the menstrual period as the time when a woman is most likely to become pregnant.

The percent of adolescents aware that a girl can become pregnant the first time that she has sex also increased between 2004 and 2005 in the intervention area, while remaining unchanged in the comparison area. Among adolescents in the intervention areas, 47 percent in 2004 and 59 percent in 2005 agreed that a girl can become pregnant the first time that she has sex. In the comparison areas, 40 percent of adolescents in 2004 and 37 percent in 2005 agreed with this statement.

While awareness of the length of a woman's menstrual cycle increased over time, similar increases were observed in both the intervention and comparison areas. In the intervention areas, the percent of adolescents aware of the length of the menstrual cycle increased from 78 percent in 2004 to 83 percent in 2005. In the comparison areas, knowledge of the menstrual cycle increased from 66 percent in 2004 to 74 percent in 2005.

Aggregating across the three knowledge items used, adolescents knowledge of pregnancy increased from 1.2 items in 2004 to 1.4 items in 2005 in the intervention area, while remaining unchanged at 1.1 items known by adolescents in the comparison areas.

**Table 3.7: Awareness of Pregnancy among Adolescents**

	Intervention sites		Comparison sites		Trend comparison p-value
	2004	2005	2004	2005	
% aware of the length of menstrual cycle (28-30 days)	77.8 <sup>ab</sup>	83.0 <sup>a</sup>	65.6 <sup>b</sup>	73.8	NS
% aware that chances of pregnancy are greatest in middle of menstrual cycle	5.0 <sup>b</sup>	8.2 <sup>a</sup>	6.2	4.9	(+) p=0.004
% aware that a girl can get pregnant at first sex	47.1 <sup>ab</sup>	59.0 <sup>a</sup>	39.5	37.3	(+) p<0.001
Index of knowledge about pregnancy	1.2 <sup>ab</sup>	1.4 <sup>a</sup>	1.1	1.1	(+) p<0.001

<sup>a</sup>Intervention sites-comparison sites comparison: p <0.05;

<sup>b</sup>FCA 1st wave-2nd wave comparison: p<0.05

Results adjusted for age, gender, marital status, level of education, current enrollment in school, religion, frequent use of mass media, and reported exposure to reproductive health information on mass media

### Maternal Health

Knowledge of maternal health increased significantly in both the intervention and comparison areas. While the change for individual items was generally similar in both the intervention and comparison areas, the overall number of items known increased to a greater degree among adolescents in the intervention sites.

Compared to the 2004 survey, a greater proportion of adolescents in 2005 were able to name at least 2 signs that a woman is pregnant. Furthermore, a greater proportion in 2005 were aware both of the need for antenatal care within the first three months of becoming pregnant and of at least two problems that can occur during pregnancy, during birth, and following the birth of a child. For each of these items, similar increases were observed in both the intervention and comparison areas. No increase was observed in either the intervention or comparison areas regarding the need for women to receive vitamin A tablets within two weeks of the birth of a child.

Aggregating across the six maternal health knowledge items used, adolescents' knowledge of maternal health increased from 1.6 items in 2004 to 2.8 items in 2005 in the intervention areas and from 1.5 items in 2004 to 2.4 items in 2005 in the comparison areas. The increase in the intervention areas was significantly greater than the increase observed in the comparison areas.

**Table 3.8: Awareness of Maternal Health among Adolescents**

	Intervention sites		Comparison sites		Trend comparison p-value
	2004	2005	2004	2005	
% aware of at least two signs of pregnancy	49.0 <sup>b</sup>	63.8 <sup>a</sup>	47.7 <sup>b</sup>	56.4	NS
% aware that a women should visit a health worker within 3 months of becoming pregnant	39.4 <sup>b</sup>	52.2 <sup>a</sup>	38.8	43.2	(+) p<0.02
% aware of at least two problems that a occur during pregnancy	15.5 <sup>b</sup>	46.9 <sup>a</sup>	11.5 <sup>b</sup>	38.8	NS
% aware of at least two problems that can occur during birth	19.8 <sup>b</sup>	55.1 <sup>a</sup>	19.6 <sup>b</sup>	47.0	NS
% aware of at least two problems that can occur after birth	7.5 <sup>b</sup>	45.0 <sup>a</sup>	7.8 <sup>b</sup>	38.5	NS
% aware that a women should receive Vitamin A tablet within 2 weeks after birth of a child	20.4 <sup>a</sup>	16.8	14.3	15.7	NS
Index of knowledge about maternal health	1.6 <sup>b</sup>	2.8 <sup>a</sup>	1.5 <sup>b</sup>	2.4	(+) p<0.01

<sup>a</sup>Intervention sites-comparison sites comparison: p <0.05;

<sup>b</sup>FCA 1st wave-2nd wave comparison: p<0.05

Results adjusted for age, gender, marital status, level of education, current enrollment in school, religion, frequent use of mass media, and reported exposure to reproductive health information on mass media

### HIV/AIDS and STIs

Knowledge of HIV/AIDS and other STIs generally decreased in the intervention areas, while some items increased in the comparison areas. While overall knowledge of HIV/AIDS was generally higher in the intervention areas, the change over time in this knowledge in the intervention areas was significantly less than that observed in the comparison areas.

Between 2004 and 2005, fewer adolescents in the intervention areas were aware of the following: HIV or AIDS, at least two transmission routes for HIV, and at least two ways to prevent HIV transmission. In the comparison sites, a greater proportion of adolescents in 2005 were able to name at least two ways to prevent HIV transmission than in 2004, although no changes were observed in the comparison areas regarding knowledge of HIV or its transmission routes. The percent of adolescents with a high level of detailed knowledge of HIV (measured using a battery of items) did not change between 2004 and 2005 in either the intervention or comparison areas, although more adolescents in the intervention areas had high levels of detailed knowledge than adolescents in the comparison areas.

Awareness of other STIs also declined somewhat in the intervention areas while increasing in the comparison areas. Between 2004 and 2005, the proportion of adolescents in the intervention areas aware of STIs other than HIV decreased from 10 percent to 8 percent, while increasing from 3 percent to 11 percent in the comparison areas.

Overall, adolescents' knowledge of HIV/AIDS and other STIs remained statistically unchanged in both the intervention and comparison areas between 2004 and 2005. In the intervention areas, adolescents knew 2.7 knowledge items in 2004 and 2.5 knowledge items in 2005. In the comparison areas, adolescents knew 2.2 knowledge items in 2004 and 2.4 knowledge items in 2005. While neither trend was statistically significant, the small decrease in the intervention areas and the small increase in the comparison areas combined to produce a significantly more negative change in the intervention areas relative to the comparison areas.

**Table 3.9: Awareness of HIV/AIDS and other STIs among Adolescents**

	Intervention sites		Comparison sites		Trend comparison p-value
	2004	2005	2004	2005	
% aware of HIV or AIDS	96.8 <sup>ab</sup>	92.1	92.0	90.6	(-) p<0.001
% aware of at least two routes of transmission of HIV	76.8 <sup>ab</sup>	71.3 <sup>a</sup>	66.1	60.6	NS
% aware of at least two ways to prevent transmission of HIV	74.8 <sup>a</sup>	78.7	64.4 <sup>b</sup>	74.2	NS
% with a high level of detailed knowledge of HIV/AIDS	21.9 <sup>a</sup>	21.9 <sup>a</sup>	13.2	16.3	NS
% aware of other STIs	10.3 <sup>a</sup>	8.4	3.3 <sup>b</sup>	10.6	(-) p<0.001
Index of knowledge about HIV/AIDS	2.7 <sup>a</sup>	2.5 <sup>a</sup>	2.2	2.4	(-) p<0.001

<sup>a</sup>Intervention sites-comparison sites comparison: p <0.05;

<sup>b</sup>FCA 1st wave-2nd wave comparison: p<0.05

Results adjusted for age, gender, marital status, level of education, current enrollment in school, religion, frequent use of mass media, and reported exposure to reproductive health information on mass media

### 3.5 Life Skills

A second objective of the program was to increase adolescents' ability to understand the changes and risks associated with adolescence and to make positive decisions to reduce these risks. To measure these life skills, five indexes were created measuring adolescents' comfort with the changes that occur during adolescence, their ability to recognize the negative consequences associated with early childbearing, their self-esteem, their confidence in their problem solving ability, and their perceptions regarding the prevalence of sexual risk-taking among their peers.

Adolescents' comfort with the changes that occur during adolescence did increase significantly between 2004 and 2005, although it increased even more during that time in the comparison areas. On a scale ranging from 0 to 6, with higher scores reflecting greater comfort with the changes that occur during adolescence, comfort with the changes during adolescence increased from 4 to 4.6 in the intervention areas and from 3.5 to 4.2 in the comparison areas. In both 2004 and 2005, adolescents in the intervention areas were more comfortable with the changes that occur during adolescence than were adolescents in the comparison sites.

As a measure of their ability to recognize the consequences associated with behavior, adolescents were also asked to list as many negative consequences associated with early childbearing as they could. Adolescents in the intervention areas were able to name, on



average, more negative consequences associated with early childbearing than were adolescents in the comparison areas. In addition, there was a significant increase in the number of negative consequences named by adolescents in the intervention areas between 2004 and 2005. However, though significant, these changes were slight and the overall trend in the intervention area was not significantly different from the trend over time observed in the comparison areas.

Adolescents' self-esteem increased significantly between the two surveys in the intervention areas, while remaining unchanged in the comparison areas over time. On a scale of 0 to 5, with a score of 5 reflecting high levels of self-esteem, average self-esteem scores increased from 3.6 in 2004 to 3.8 in 2005, with no increase observed in the comparison sites. The overall trend in self-esteem was significantly greater in the intervention areas than in the comparison areas.

Adolescents' confidence in their ability to solve problems increased significantly between 2004 and 2005 in both the intervention and comparison sites. On a scale of 0 to 4, adolescents' confidence in their problem-solving ability increased from 2.3 to 2.8 in the intervention areas and from 2.4 to 2.9 in the comparison areas. The trends over time in these two areas did not differ significantly.

Adolescents' perceptions of the social norms related to sexual risk-taking behavior became significantly more favorable in the intervention area between 2004 and 2005, while remaining unchanged over time in the comparison areas. On a scale of 0-12, with 12 reflecting low perceived risk-taking among peers, adolescents' perceptions of their peers' behaviors increased from 9.4 in 2004 to 10.2 in 2005 in the intervention areas. In the comparison communities, adolescents' average scores on the Peer Norm Index were approximately 10.0 in both 2004 and 2005.

**Table 3.10: Psychosocial indexes related to adolescent life skills**

	Intervention sites		Comparison sites		Trend comparison p-value
	2004	2005	2004	2005	
Level of comfort with changes that occur during adolescence	4.0 <sup>ab</sup>	4.6 <sup>a</sup>	3.5 <sup>b</sup>	4.2	(-) p=0.03
Number of negative consequences associated with early childbearing	2.4 <sup>b</sup>	2.5 <sup>a</sup>	2.3	2.3	NS
Self-esteem	3.6 <sup>ab</sup>	3.8 <sup>a</sup>	3.9	4.0	(+) p=0.01
Confidence in their problem-solving ability	2.3 <sup>ab</sup>	2.8 <sup>a</sup>	2.4 <sup>b</sup>	2.9	NS
Perceived peer norms regarding sexual behavior	9.4 <sup>ab</sup>	10.2 <sup>a</sup>	9.9	10.0	(+) p<0.001

<sup>a</sup>Intervention sites-comparison sites comparison: p <0.05;

<sup>b</sup>FCA 1st wave-2nd wave comparison: p<0.05

Results adjusted for age, gender, marital status, level of education, current enrollment in school, religion, frequent use of mass media, and reported exposure to reproductive health information on mass media

### 3.6 Interpersonal Communication about Reproductive Health

A third objective of the program was to increase adolescents' use of family members, particularly parents, as trusted sources of information about reproductive health. To assess this, adolescents were asked if they had spoken with a parent, elder family member, and friend about specific reproductive health topics in the past year. These

responses were aggregated to assess any communication about reproductive health with each of these sources in the past year.

The percent of adolescents that reported talking about reproductive health with a parent in the past year increased between 2004 and 2005 in the comparison sites, although no change was observed in the intervention areas. In the intervention areas, 17 percent of adolescents in 2004 and 15 percent of adolescents in 2005 reported that they spoke with a parent about reproductive health in the past year. In the comparison areas, the percent of adolescents who spoke with a parent about reproductive health increased from 8 percent in 2004 to 14 percent in 2005. While a greater proportion of adolescents in the intervention areas had spoken with a parent about reproductive health in 2004, there was no difference between intervention and comparison sites regarding adolescent-parent communication about reproductive health in 2005. Few differences were observed between the intervention and comparison sites regarding the percent of adolescents who talked with an older family member about reproductive health.

The percent of adolescents that reported talking with the peers about reproductive health also increased significantly in the comparison areas, rising from 71 percent in 2004 to 77 percent in 2005. No change was observed in the intervention areas, where approximately 85 percent of adolescents in each survey reported discussing reproductive health with their friends. In both surveys, adolescents in the intervention areas were more likely to have talked with a friend about reproductive health than were adolescents in the comparison communities.

**Table 3.11: Interpersonal communication about reproductive health**

	Intervention sites		Comparison sites		Trend comparison p-value
	2004	2005	2004	2005	
% Talked to a parent about ARH issue	16.8 <sup>a</sup>	15.4	7.6 <sup>b</sup>	14.1	(-) p<0.001
% Talked to an older family member about ARH issue	18.9	16.8 <sup>a</sup>	15.6 <sup>b</sup>	12.4	NS
% Talked to a friend about ARH issue	85.4 <sup>a</sup>	84.4 <sup>a</sup>	70.9 <sup>b</sup>	77.3	(-) p=0.02

<sup>a</sup>Intervention sites-comparison sites comparison: p <0.05;

<sup>b</sup>FCA 1st wave-2nd wave comparison: p<0.05

Results adjusted for age, gender, marital status, level of education, current enrollment in school, religion, frequent use of mass media, and reported exposure to reproductive health information on mass media

### 3.7 Risk Behaviors

The main objective of the program was to encourage adolescents to engage in behaviors that would reduce their risk of reproductive health problems. This section examines the effects of the program on two risk behaviors – sexual activity among unmarried males and contraceptive use among married females. Due to the small number of sexually active or married males in the sample, it was not possible to examine condom or contraceptive use among this group. Similarly, the small number of unmarried sexually active females limited our ability to examine premarital sexual behavior among females.

Premarital sexual activity among males declined significantly in the intervention areas between 2004 and 2005, while remaining unchanged in the comparison areas. In the 2004 survey, unmarried adolescent males in the intervention areas were significantly more likely to have reported ever having sex than were adolescents in the comparison areas. Between 2004 and 2005, unmarried adolescent males reporting ever having sex

decreased from 22 percent to 14 percent in the intervention area, while remaining essentially unchanged in the comparison areas.

Few differences were observed regarding the level of contraceptive use among married female adolescents. In both 2004 and 2005, slightly less than half of married adolescent females in the intervention areas and slightly more than half in the comparison areas were using a contraceptive method. No changes were observed over time in either the intervention or comparison areas.

**Table 3.12: Reproductive health risk behaviors**

	Intervention sites		Comparison sites		Trend comparison p-value
	2004	2005	2004	2005	
% of unmarried males reporting ever having sex	22.2 <sup>ab</sup>	13.8	13.5	17.3	(-) p<0.001
% of married females reporting current use of a modern contraceptive method	44.4	47.5	50.5	55.8	NS

<sup>a</sup>Intervention sites-comparison sites comparison: p <0.05;

<sup>b</sup>FCA 1st wave-2nd wave comparison: p<0.05

Results adjusted for age, gender, marital status, level of education, current enrollment in school, religion, frequent use of mass media, and reported exposure to reproductive health information on mass media

## Chapter 4

### Parent/Guardian Respondents

#### 4.1 Background Characteristics of Parents/Guardians

In the study, apart from the adolescent respondents, a total of 1276 parents/guardians (fathers, mothers, and other adult family members) were interviewed. Among them, the majority (88 percent) were parents and the rest were other guardians, including brothers, sisters, uncles, grand parents or father/mother-in-laws. In the baseline survey, overall similar proportion of parents and guardians were interviewed. By and large, the male-to-female ratio among the adult respondents for the survey was 50:50.

In the follow-up survey, the age range of the adult respondents was 20 to 80 years with 43 years as the mean age of the parents/guardians. This was slightly higher than that of parents/guardians in the baseline survey. The mean ages of males and females were 46 and 40, respectively.

**Table 4.1: Percentage distribution of parents/guardians according to Background Characteristics**

Background Characteristics	Male				Female			
	Intervention sites		Comparison sites		Intervention sites		Comparison sites	
	2004	2005	2004	2005	2004	2005	2004	2005
Age (mean in years)	45.8	46.3	44.9	46.7	38.9	40.5	38.4	40.3
Ever Attended school	52.1	50.6	50.3	48.9	38.8	38.1	43	44.9
% able to read easily	14.3	9.8	12.5	10.5	9.1	12	8.2	11
% able to write easily	15.6	8.1	10	10.1	9.8	9.9	10.2	10.7

Generally, male parents/guardians had attained a higher level of education than their female counterparts. Overall, about half of the male adult respondents (51 percent) and 38 percent of females in the intervention areas had ever attended school. Approximately one-tenth of the parents/guardians could read and write easily. There were no apparent differences in education between the intervention and comparison areas (Table 4.1).

More than 90 percent of the female parents/guardians were housewives. The majority of the males were farmers (78 percent), followed by businessmen (10 percent) (Appendix Table A-10).

#### 4.2 Household Environment

Household norms are recognized as a major influence on adolescents' behavior. To assess these norms, parents or guardians were asked about their perceptions related to adolescent reproductive health. It is assumed that parents' perceptions inform the norms present in a household.

Few effects of the program were seen on parents' perceptions related to adolescent reproductive health. The percent of parents that believe it is definitely important for their daughters to complete secondary school increased from 42 percent in 2004 to 53 percent in 2005 in the intervention areas, but it also increased to the same extent in the comparison areas. No change was observed in the percent of intervention-area parents that consider 18 years of age or older to be the ideal time for a girl to get married.

However, this did increase in the comparison area between 2004 and 2005, rising from 69 percent in 2004 to 80 percent in 2005.

No change was observed in either the intervention or comparison areas regarding parents' attitudes towards fertility. In both intervention and comparison areas and in both surveys, nearly 90 percent of parents reported that they believe that their children should have no more than 2 children themselves and fewer than five percent of parents believed that married couples should have children as soon as possible. No differences were observed between the intervention and comparison groups or across the surveys.

The percent of parents in the intervention areas who believed that adolescents have a lot of influence on specific household decisions did increase over time, although larger increases were observed among parents in the comparison communities. Between 2004 and 2005, the percent of parents who believed that adolescents have a lot of influence on the level of education they receive increased from 64 percent to 72 percent in the intervention area and from 47 percent to 64 percent in the comparison areas. Similarly, the proportion of parents who believed adolescents have a lot of influence on the selection of their spouses increased from 21 percent to 28 percent in the intervention areas and from 11 to 25 percent in the comparison areas. For two other decisions – the size of their dowry and their use of health care services – no change was observed in the proportion of parents in the intervention areas who believed that adolescents have a lot of influence. For both topics, the percent of parents in the comparison areas who believed that adolescents have a lot of influence in these decisions increased between 2004 and 2005.

**Table 4.2: Percentage Distribution of Parents by Household Environment related to Timing of Marriage of Females, Contraceptive Use and Adolescent Decision Making**

Household Environment	Intervention sites		Comparison sites	
	2004	2005	2004	2005
<b>Timing of marriage of females</b>				
It is definitely important for daughters to complete secondary school	41.9 <sup>b</sup>	53.3 <sup>a</sup>	39.7 <sup>b</sup>	46.7
The ideal age for a girl to marry is 18 years or greater	77.6 <sup>a</sup>	81.4	69.1 <sup>b</sup>	80
<b>Contraceptive use</b>				
Believed their children should have no more than 2 children	85.4	89.1	86.4	88.7
Believed that married couples should have children as soon as possible	3.8	3.9	4.7	2.7
<b>Believe adolescents have a lot of influence on the following decisions</b>				
The level of education they will receive	64.3 <sup>ab</sup>	72 <sup>a</sup>	46.6 <sup>b</sup>	63.7
The selection of their spouse	21.1 <sup>ab</sup>	28.3	10.9 <sup>b</sup>	25.3
The size of the dowry	16.4 <sup>a</sup>	17.3	6.7 <sup>b</sup>	15.6
The use of health care services	68.8 <sup>a</sup>	72	59.5 <sup>b</sup>	68.4

<sup>a</sup>Intervention sites-comparison sites comparison:  $p < 0.05$ ;

<sup>b</sup>FCA 1st wave-2nd wave comparison:  $p < 0.05$

### 4.3 Parent-Child Communication

Parents were also asked to indicate if they had spoken with their child about reproductive health topics in the past year. Corroborating the findings from the adolescent respondents, the percent of parents reporting discussing reproductive health with a child in the past year decreased somewhat in the intervention areas, from 38 percent in 2004 to 31 percent in 2005, while increasing from 16 to 23 percent in the comparison areas. In both 2004 and 2005, a greater proportion of parents in the

intervention areas had reported discussing reproductive health with their child in the past year.

However, many parents reported that they do not believe that they have enough knowledge to answer their children's questions. In the intervention areas, a similar proportion of parents (56 percent in 2004 and 54 percent in 2005) reported that they have enough knowledge to answer their children's questions about reproductive health. While remaining unchanged in the intervention area, the proportion of parents in the comparison areas who reported that they have enough knowledge to answer their children's questions increased from 45 percent in 2004 to 52 percent in 2005.

#### 4.4 Reproductive Health Information

Nearly all parents believed that adolescents, even young adolescents between the ages of 12-14 years, should receive information about prevention of unwanted pregnancies and sexually transmitted infections. While the percent of parents in the intervention areas supporting reproductive health education for adolescents increased between 2004 and 2005, similar increases were observed in the intervention and the comparison areas.

**Table 4.3: Percentage Distribution of Parents by their Support towards RH Information Dissemination to the Adolescents**

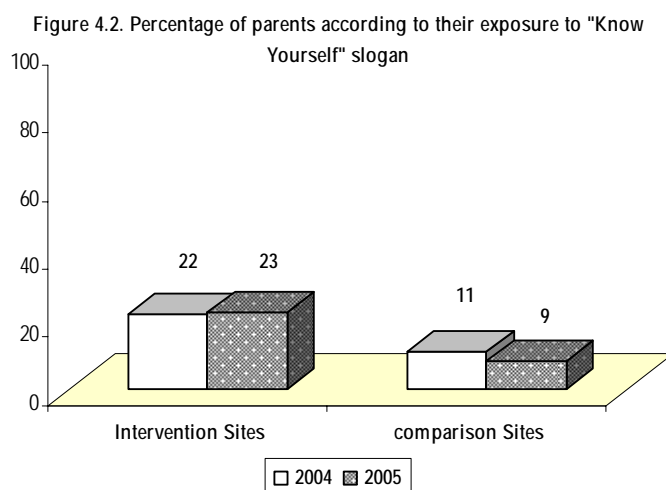
Parents Supportive Attitude	Intervention sites		Comparison sites	
	2004	2005	2004	2005
Parents believed that 12-14 year olds should receive information about ways to prevent unintended pregnancies	74.3 <sup>b</sup>	94.1	73.6 <sup>b</sup>	93.1
Parents believed that 12-14 year olds should receive information about sexually transmitted diseases, including AIDS	86.5 <sup>ab</sup>	96.7	72.9 <sup>b</sup>	95
Parents believed that 15-19 year olds should receive information about ways to prevent unintended pregnancies	96.9 <sup>ab</sup>	97.7	93.1 <sup>b</sup>	98.4
Parents believed that 15-19 year olds should receive information about sexually transmitted diseases, including AIDS	96.9 <sup>a</sup>	98.3	82 <sup>b</sup>	97.6

<sup>a</sup>Intervention sites-comparison sites comparison:  $p < 0.05$ ;

<sup>b</sup>FCA 1st wave-2nd wave comparison:  $p < 0.05$

#### 4.5 Exposure to "Know Yourself" slogan

Sixteen percent of the all parents/guardians recalled seeing or hearing the program slogan. Expectedly, exposure to the slogan was significantly higher in the intervention areas (23 percent) than in the comparison areas (9 percent). In both intervention and comparison areas, exposure to the program did not change between 2004 and 2005.



## Chapter 5

### Discussion and Recommendations

The persistence of early marriage and childbearing among female adolescents and the increasing sexual activity among unmarried male adolescents has contributed to growing concerns about adolescent reproductive health in Bangladesh. Fueled by these concerns and the concomitant increases in funding availability, community groups throughout Bangladesh have initiated programs to address adolescents' reproductive health problems. However, these programs often lack the materials or support to address these issues in a systematic and effective manner.

This study evaluated a toolkit of materials and approaches intended to provide a strategic approach for addressing adolescent reproductive health at the community level. This toolkit will serve as a tested resource for community-based organizations interested in working to improve the reproductive health of adolescents living in their communities. As such, this toolkit provides an opportunity to support effective community-based adolescent reproductive health activities on a national scale.

The results from this study suggest that the use of this toolkit can effectively address some of the psychosocial factors and behaviors related to adolescents' reproductive health. Following a one-year implementation period, adolescents' knowledge of reproductive health topics and their perceptions of the social norms prevalent within their peer groups had improved significantly more in the intervention areas than in the comparison areas. Most striking, premarital sexual behavior among adolescents in the intervention areas decreased significantly during the implementation period, while remaining unchanged among adolescent males in the comparison areas.

This study suggests that the development of life skills among adolescents in Bangladesh remains a challenge. Although the toolkit emphasized activities to develop adolescent life skills, the study observed mixed effects on these skills. Adolescents' self-esteem did improve significantly more in the intervention areas than in the comparison areas. However, no effects were observed in their confidence for problem-solving, their critical thinking skills, or in their interpersonal communication about reproductive health with parents or older family members. While these results call for a review of the existing approaches used by the toolkit for life skills development, participant narratives (examples included in Appendix B) suggest that the program may affect these life skills in subtle ways that are less easily captured in structured surveys. The current measures of life skills are being reviewed to improve their ability to capture these changes, if they occur, and to more closely correspond with the specific life skills promoted by the program.

The lack of an effect of the toolkit on contraceptive use among married female adolescents indicates a second challenge facing adolescent reproductive health programs in Bangladesh. Family and social pressures continue to provide adolescent women in Bangladesh with strong incentives to bear children at an early age. The lack of an effect on contraceptive use highlights the need for more intensive efforts among parents and community leaders to promote household environments in which young married women are able to delay their first birth through contraceptive use. Most parents interviewed in this study expressed attitudes favoring later marriage and childbearing by their daughters. Additional research is necessary to understand the barriers that limit the correspondence between these attitudes and the behaviors that continue to foster early marriage and childbearing by adolescent females in Bangladesh.

The study was also affected by two sources of bias. First, considerable differences were observed between the intervention and comparison sites in the first survey. These differences may reflect the effect of some reproductive health videos that were shown in

the intervention sites prior to the first survey, prior effects of the community-based organizations in the intervention communities or other unknown factors. Second, the widespread implementation of adolescent reproductive health activities throughout Bangladesh suggests that adolescents in the comparison communities may have been exposed to other programs that may affect their reproductive health-related knowledge, attitudes, and behaviors.

To remove the effect of these potential biases, this study used an analytic approach that compared the trends between the two surveys in the intervention areas with the trends in the comparison areas. By emphasizing the additional change in the intervention communities during the implementation period, this approach isolates the program effect from any preexisting differences between the groups and from any other interventions occurring in the comparison areas.

This approach provides a conservative estimate of the program's effect. It attributes to the toolkit only the effects that are beyond what would have been expected had existing approaches been used in the intervention areas. The high proportion of unexposed adolescents in the intervention areas may also have dampened the observed effects of the intervention, although this concern is reduced following additional analyses that indicated similar trends over time for both exposed and unexposed adolescents in the intervention areas. Overall, this conservatism strengthens our confidence that the observed differences between the intervention and comparison groups are attributable to the toolkit's effect.



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**Appendix - A**  
**Additional Tables**  
**(Adolescents & Parents/Guardians)**

APPENDIX  
TABLES

<b>Table A-1: Percentage Distribution of Adolescents by Age, Religion, and Educational Status</b>												
<b>Back ground Characteristics</b>	<b>Male</b>						<b>Female</b>					
	<b>Intervention</b>		<b>Comparison</b>		<b>Total</b>		<b>Intervention</b>		<b>Comparison</b>		<b>Total</b>	
	<b>2004</b>	<b>2005</b>	<b>2004</b>	<b>2005</b>	<b>2004</b>	<b>2005</b>	<b>2004</b>	<b>2005</b>	<b>2004</b>	<b>2005</b>	<b>2004</b>	<b>2005</b>
<b>Mean age (in years)</b>	15.7	15.9	16.0	15.8	15.8	15.8	15.3	16.1	15.3	16.0	15.3	16.0
<b>Religion</b>												
Islam	94.8	95	83.6	90.7	89.4	92.8	92.5	94.7	83	90.7	87.9	92.7
Hinduism	3.9	2.2	14.5	7.8	9.0	5.0	5.7	2.2	14.6	7.5	10.0	4.8
Others*	1.4	2.8	2.0	1.5	1.6	2.2	1.8	3.1	2.4	1.8	2.2	2.4
<b>Education level</b>												
Have ever attended School	93.0	92.6	91.4	93.9	92.2	93.3	96.1	93.2	93.9	94.9	95.1	94.1
Currently attend school	49.8	55.4	48.3	54.3	49.0	54.8	64.2	51.8	59.2	47.3	61.8	49.5
Primary complete	60.2	64.6	65.4	68.6	62.6	66.6	50.1	44.9	54.4	41.1	52.2	42.9
Secondary +	39.8	35.4	34.7	31.4	37.4	33.4	50.0	55.1	45.5	58.7	47.8	57.1
Can read easily	42.4	23.6	26.2	32.5	34.0	28.2	44.3	30.4	29	31.1	36.4	30.7
Can write easily	44.7	25.8	39.3	33.0	41.9	29.6	44.3	33.3	30.5	34.1	37.2	33.7

\* others include Christians, Buddhists, Saotals, and so on)

<b>Table A-2: Percentage Distribution of Adolescents in the follow-up survey by their highest level of education completed</b>									
<b>Educational background</b>	<b>Male</b>			<b>Female</b>			<b>Total</b>		
	<b>Intervention</b>	<b>Comparison</b>	<b>Total</b>	<b>Intervention</b>	<b>Comparison</b>	<b>Total</b>	<b>Intervention</b>	<b>Comparison</b>	<b>Total</b>
Illiterate	7.4	6.1	6.7	6.8	5.1	5.9	7.1	5.6	6.3
Primary	31.4	36	33.7	22.8	24.8	23.8	27.1	30.4	28.8
Secondary	58.7	54.9	56.8	67.5	67.9	67.7	63.1	61.3	62.2
Higher secondary+	2.4	3	2.7	2.8	2.2	2.5	2.6	2.6	2.6

<b>Table A-3: Percentage Distribution of Adolescents by Working status, Income and Control over Earnings</b>												
<b>Working status &amp; Income</b>	<b>Male</b>						<b>Female</b>					
	<b>Intervention</b>		<b>Comparison</b>		<b>Total</b>		<b>Intervention</b>		<b>Comparison</b>		<b>Total</b>	
	<b>2004</b>	<b>2005</b>	<b>2004</b>	<b>2005</b>	<b>2004</b>	<b>2005</b>	<b>2004</b>	<b>2005</b>	<b>2004</b>	<b>2005</b>	<b>2004</b>	<b>2005</b>
Currently working	33.3	37.3	27.0	34.7	30.3	36.0	6.8	9.6	3.4	5.1	5.2	7.4
<b>Salary, last working month (BDT)</b>												
Up to 500	15.8	19.2	21.3	20.1	18.1	19.6	70.7	74.5	93.8	76.9	77.2	75.3
501-1000	19.3	21.5	27.9	16.5	22.9	19.1	22	14.5	6.3	11.5	17.5	13.6
1001-1500	26.3	19.2	21.3	25.0	24.2	22.0	4.9	5.5	0	0	3.5	3.7
1501-2000	14.0	18.1	10.7	22.0	12.6	19.9	0	3.6	0	7.7	0	4.9
2001-2500	5.3	3.4	5.7	3.0	5.5	3.2	0	1.8	0	0	0	1.2
2501+	19.3	18.6	13.1	13.4	16.7	16.1	2.4	0	0	3.8	1.8	1.2
Average income	1601.2	1541.3	1336.4	1442.4	1490.9	1493.7	494.0	468.3	281.3	557.8	434.3	497.0
<b>Control over earnings</b>												
Myself	32.2	57.1	27.0	77.4	30.0	66.9	46.3	80.0	37.5	84.6	43.9	81.5
Mother/father	66.1	73.4	68.0	68.3	66.9	71.0	34.1	34.5	50	46.2	38.6	38.3
My spouse	0	0	0	0	0	0	14.6	0	0	0	10.5	0
Brother/sister	1.2	5.6	4.1	6.1	2.4	5.9	2.4	3.6	6.3	7.7	3.5	4.9

<b>Table A-4: Percentage Distribution of Adolescents by Marital Status and age at marriage</b>												
<b>Marital Status</b>	<b>Male</b>						<b>Female</b>					
	<b>Intervention</b>		<b>Comparison</b>		<b>Total</b>		<b>Intervention</b>		<b>Comparison</b>		<b>Total</b>	
	<b>2004</b>	<b>2005</b>	<b>2004</b>	<b>2005</b>	<b>2004</b>	<b>2005</b>	<b>2004</b>	<b>2005</b>	<b>2004</b>	<b>2005</b>	<b>2004</b>	<b>2005</b>
Married	5.4	1.5	3.9	3.0	4.7	2.3	22.0	34.9	24.8	38.1	23.3	36.5
Unmarried	94.6	98.5	96.1	96.7	95.3	97.6	76.4	63.8	72.1	61.1	74.3	62.4
Others*	0	0	0	0.2	0	0.1	1.6	1.3	3.2	0.9	2.3	1.1
<b>Age at marriage</b>												
11	0.0	0.0	0.0	0.0	0.0	0.0	4.8	1.2	2.6	2.3	3.7	1.8
12	0.0	0.0	0.0	0.0	0.0	0.0	8.7	5.5	14.8	10.2	11.9	7.9
13	8.3	0.0	6.3	6.7	7.5	4.5	15.4	14.5	21.7	15.3	18.7	15.0
14	0.0	0.0	6.3	6.7	2.5	4.5	17.3	17.0	17.4	17.0	17.4	17.0
15	8.3	14.3	12.5	0.0	10.0	4.5	20.2	21.8	19.1	18.8	19.6	20.2
16	8.3	28.6	6.3	6.7	7.5	13.6	14.4	23.0	11.3	13.1	12.8	17.9
17	20.8	28.6	43.8	26.7	30.0	27.3	11.5	7.9	8.7	9.7	10.0	8.8
18	33.3	14.3	12.5	46.7	25.0	36.4	4.8	6.1	1.7	6.8	3.2	6.5
19	20.8	0.0	12.5	0.0	17.5	0.0	1.9	0.6	0.0	3.4	0.9	2.1
Mean age at marriage (in years)	17.2	16.5	16.6	16.9	17.0	16.8	14.6	14.8	14.0	14.7	14.3	14.8

\*Others: separated/widowed

**Table A-5: Percentage Distribution of Adolescents by Exposure to Media, 2005**

Media Exposure	Male			Female			Total		
	Intervention	Comparison	Total	Intervention	Comparison	Total	Intervention	Comparison	Total
Radio Listeners	73.8	75.1	74.4	68.4	65.3	66.9	71.1	70.2	70.7
<b>Place to listen to radio</b>									
Home	62.1	59.2	60.7	56.4	58.6	57.5	59.4	59.0	59.2
Next door house	15.1	23.1	19.2	30.8	31.9	31.3	22.6	27.1	24.9
Relative's house	10.9	7.8	9.4	11.9	9.2	10.5	11.4	8.4	9.9
Market place	1.5	3.5	2.5	0	0	0	0.8	1.9	1.3
Shop	6.5	3.5	5.0	0	0.3	0.2	3.4	2.0	2.7
Friend's place	2.4	2.3	2.3	0.6	0	0.3	1.5	1.2	1.4
Television viewer	85.2	90.9	88.0	78.5	76.1	77.3	81.8	83.6	82.7
<b>Place to watch TV</b>									
Home	31.3	17.7	24.2	33.5	25.3	29.5	32.4	21.1	26.7
Next door house	36.4	52.5	44.7	45.5	58.4	51.9	40.8	55.2	48.0
Relative's house	21.3	18.9	20.0	20.4	15.1	17.8	20.9	17.2	19.0
Market place	5.6	6.2	5.9	0.3	0	0.1	3.1	3.4	3.2
Friend's place	1.3	0.2	0.7	0.3	0	0.1	0.8	0.1	0.5
Newspaper reader	58.3	44.4	51.3	38.3	29.2	33.7	47.7	36.5	42.1
<b>Where to read newspaper</b>									
Home	9.5	7.5	8.6	56.4	52.8	54.9	29.4	26.5	28.1
Market place	7.4	5.4	6.5	2.1	0	1.2	5.2	3.2	4.3
School/ college/ madrasha	5.3	10.9	7.7	9.3	29.2	17.9	7.0	18.6	12.0
Library	10.0	5.4	8.0	4.3	0.9	2.8	7.6	3.6	5.8
Club	2.1	1.4	1.8	2.1	0.9	1.6	2.1	1.2	1.7

<b>Table A-6: Percentage Distribution of Adolescents by Exposure to RH messages on Media, 2005</b>									
<b>Exposure to RH messages</b>	<b>Male</b>			<b>Female</b>			<b>Total</b>		
	<b>Intervention</b>	<b>Comparison</b>	<b>Total</b>	<b>Intervention</b>	<b>Comparison</b>	<b>Total</b>	<b>Intervention</b>	<b>Comparison</b>	<b>Total</b>
<b>Exposure through radio</b>									
Physical changes during puberty	43.5	28.9	36.1	39.4	32.5	36.1	41.5	30.6	36.1
Menstruation	26.3	27.2	26.8	41.0	38.0	39.5	33.4	32.1	32.8
Wet dreams	18.9	13.6	16.2	20.5	11.2	16.0	19.7	12.5	16.1
Sexual harassment	39.6	43.1	41.4	34.6	23.1	29.0	37.2	33.9	35.6
Postponing early marriage	82.5	89.6	86.1	84.0	85.8	84.8	83.2	87.8	85.5
Postponing early pregnancy	54.1	44.5	49.3	63.5	51.5	57.7	58.6	47.7	53.2
Prevent of HIV/AIDS	75.7	76.0	75.9	70.2	63.1	66.7	73.1	70.0	71.6
About STI	19.8	9.2	14.5	17.6	5.8	11.9	18.8	7.6	13.2
Dowry	87.0	85.0	86.0	84.9	81.0	83.0	86.0	83.2	84.6
Place to get RH services	30.5	19.4	24.9	31.1	22.4	26.9	30.8	20.7	25.8
<b>Exposure through Television</b>									
Physical changes during puberty	39.7	21.7	30.4	31.6	23.3	27.5	35.8	22.4	29.1
Menstruation	24.6	17.2	20.8	30.4	20.6	25.6	27.4	18.7	23.0
Wet dreams	17.7	9.5	13.5	15.4	3.8	9.7	16.6	6.9	11.7
Sexual harassment	35.6	37.5	36.6	41.3	27.3	34.5	38.4	32.9	35.6
Postponing early marriage	79.0	85.7	82.4	80.4	79.7	80.1	79.7	83.0	81.3
Postponing early pregnancy	46.4	37.5	41.8	55.3	41.9	48.7	50.7	39.4	45.0
Antenatal care or postnatal care	42.3	39.9	41.0	50.6	36.0	43.4	46.3	38.1	42.2
Prevention of HIV/AIDS	76.4	77.8	77.1	69.8	61.0	65.5	73.3	70.2	71.7
About STI	17.4	9.1	13.1	20.7	7.3	14.1	19.0	8.3	13.6
Dowry	79.7	84.0	82.0	85.8	80.8	83.3	82.6	82.6	82.6
Place to get RH services	30.0	18.1	23.9	34.9	18.6	26.9	32.4	18.3	25.3

<b>Table A-7: Percentage Distribution of Adolescents by Knowledge of Contraceptive Methods</b>												
<b>Knowledge of ways to avoid pregnancy</b>	<b>Male</b>						<b>Female</b>					
	<b>Intervention</b>		<b>Comparison</b>		<b>Total</b>		<b>Intervention</b>		<b>Comparison</b>		<b>Total</b>	
	<b>2004</b>	<b>2005</b>	<b>2004</b>	<b>2005</b>	<b>2004</b>	<b>2005</b>	<b>2004</b>	<b>2005</b>	<b>2004</b>	<b>2005</b>	<b>2004</b>	<b>2005</b>
Knows a way to avoid pregnancy	74.4	82.5	76.7	87.2	75.5	84.9	94.6	89.7	88.1	88.9	91.4	89.3
<b>Knowledge of specific methods</b>												
Pill	97.6	97.6	94.2	98.3	95.9	97.9	99.0	98.8	99.2	99.0	99.1	98.9
IUD	0.9	7.9	1.3	0.7	1.1	4.2	5.0	15.2	8.0	4.5	6.4	9.9
Injectable	23.8	34.4	24.3	47.3	24.0	41.0	55.9	66.3	67.2	59.5	61.2	62.9
Condom	87.8	95.5	89.1	91.8	88.5	93.6	57.3	84.8	64.7	70.6	60.8	77.8
Norplant	0.6	2.9	1.3	0	0.9	1.4	3.4	5.1	8.0	5.2	5.5	5.2
Male sterilization	1.2	6.1	1.9	4.7	1.6	5.4	2.2	6.6	2.2	3.7	2.2	5.2
Female sterilization	0.9	6.6	3.5	5.7	2.2	6.2	10.3	13.2	15.4	7.7	12.7	10.5



<b>Table A-8: Percentage Distribution of Adolescents by Knowledge of Complications during pregnancy, child-birth and immediately after delivery</b>												
<b>Knowledge of child-birth related complications</b>	<b>Male</b>						<b>Female</b>					
	<b>Intervention</b>		<b>Comparison</b>		<b>Total</b>		<b>Intervention</b>		<b>Comparison</b>		<b>Total</b>	
	<b>2004</b>	<b>2005</b>	<b>2004</b>	<b>2005</b>	<b>2004</b>	<b>2005</b>	<b>2004</b>	<b>2005</b>	<b>2004</b>	<b>2005</b>	<b>2004</b>	<b>2005</b>
<b>Complications during pregnancy</b>												
Hemorrhage	1.8	21.6	2.5	17.4	2.1	19.5	3.6	21.3	4.1	15.0	3.9	18.2
Severe headache	11.1	40.6	20.6	51.6	15.7	46.1	34.0	49.6	22.3	37.8	28.4	43.7
Blurring of vision	4.8	15.9	5.4	21.5	5.1	18.7	11.6	21.5	8.5	8.4	10.1	15.0
High fever	4.8	22.1	5.1	16.9	4.9	19.5	13.8	20	4.9	8.6	9.5	14.3
Convulsions	1.8	16.2	2.7	8.9	2.2	12.5	10.0	26.5	5.3	17.5	7.7	22
Edema/swelling	2.5	13.8	5.6	7.6	4.0	10.7	24.7	28.7	14.6	27.7	19.8	28.2
Nauseous	4.3	11.6	6.4	12.6	5.3	12.1	6.1	13.2	18.7	15	12.2	14.1
Stomach ache	3.4	4.6	2.2	8.7	2.8	6.6	2.5	3.5	0.5	2.7	1.5	3.1
Loss of Appetite	0.7	4.8	0.7	3.5	0.7	4.1	5.9	16.7	4.6	15.3	5.3	16.0
Don't know	77.3	25.5	63	23.4	70.4	24.5	28.6	11	39.6	18.1	33.9	14.5
<b>Complications during delivery</b>												
Hemorrhage	18.1	34.5	19.9	45.6	19.0	40.0	31.1	46.7	24.5	35.8	27.9	41.3
Severe headache	3.4	27.7	3.2	40.6	3.3	34.2	5.0	30.5	4.1	22.1	4.6	26.3
Blurring of vision	1.4	11.1	1.5	16.3	1.4	13.7	6.6	16.2	2.7	7.3	4.7	11.8
High fever	1.8	16.6	1.5	12.6	1.6	14.6	6.6	14.7	4.6	5.5	5.6	10.1
Convulsions	3.9	18.8	5.1	10.2	4.5	14.5	18.8	37.9	16.0	24.1	17.5	31.1
Prolonged labor for more Than 12 hours	2.9	29.9	10	16.3	6.4	23.1	33.8	39.7	31.1	31.0	32.5	35.4
Mal-presentation	5.2	7.0	4.2	3.0	4.7	5.0	15.0	15.6	14.6	12.8	14.8	14.2
Don't know	70.5	28.2	65.7	26	68.2	27.1	34.9	12.5	40.3	23.2	37.5	17.8
<b>Complications immediately after child-birth</b>												
Hemorrhage	7.0	30.1	4.2	36.0	5.7	33.1	21.1	47.4	25.2	36.9	23.1	42.2
Severe headache	1.1	25.5	0.2	35.8	0.7	30.7	1.6	21.7	2.4	13.3	2.0	17.5
Blurring of vision	2.9	11.4	1.5	17.6	2.2	14.5	1.6	16.0	1.2	4.9	1.4	10.5
High fever	1.4	18.8	3.4	15.8	2.4	17.3	10.9	16.9	4.6	3.5	7.9	10.2
Convulsions	1.4	15.9	0.7	8.2	1.1	12.1	7.5	30.7	6.3	23.5	6.9	27.1
Delayed removal of placenta (more than 30 minutes)	1.8	17.9	2.2	5.4	2.0	11.6	13.6	25.0	20.4	20.6	16.9	22.8
Don't know	82.8	38.4	86.5	33.4	84.6	35.9	52.4	18.2	53.6	32.3	53.0	25.2

<b>Table A-9: Percentage Distribution of Adolescents by Knowledge about Transmission of HIV/AIDS and ways of prevention</b>												
<b>Knowledge of HIV/AIDS</b>	<b>Male</b>						<b>Female</b>					
	<b>Intervention</b>		<b>Comparison</b>		<b>Total</b>		<b>Intervention</b>		<b>Comparison</b>		<b>Total</b>	
	<b>2004</b>	<b>2005</b>	<b>2004</b>	<b>2005</b>	<b>2004</b>	<b>2005</b>	<b>2004</b>	<b>2005</b>	<b>2004</b>	<b>2005</b>	<b>2004</b>	<b>2005</b>
<b>Ways of Transmission of HIV/AIDS</b>												
Sexual intercourse	62.8	45.4	66.8	30.6	64.7	38.0	54.7	44.9	52.7	40.4	53.8	42.8
Sharing needles/ medical equipment	47.4	58.6	46.9	61.8	47.2	60.2	55.0	58.3	35.8	38.7	46.7	48.9
Blood transfusions	34.7	53.6	26.7	49.9	31.0	51.8	29.3	47.3	21.3	29.7	25.8	38.9
Mother to child	8.3	3.3	5.1	4.6	6.8	3.9	11.5	10.7	6.1	3.5	9.1	7.2
Mosquito or other insect bites	1.2	0.8	1.1	0.5	1.2	0.6	1.0	1.3	1.0	0.9	1.0	1.1
Through breast milk	4.9	2.8	6.0	1.3	5.4	2.0	8.4	2.7	5.4	3.2	7.1	2.9
Sex with prostitute	5.9	44.4	7.7	61.5	6.7	52.9	2.5	38.8	3.7	41.0	3.0	39.8
Sex with multiple sex partner	14.9	21.6	8.5	15.4	12.0	18.5	7.1	16.8	5.4	11.9	6.4	14.5
Don't know	14.7	7.5	12.5	10.4	13.7	8.9	17.0	12.6	27.4	17.7	21.5	15.0
<b>Ways to Prevent HIV/AIDS</b>												
Abstinence	30.0	13.6	39.0	10.9	34.2	12.3	40.5	29.4	51.9	32.3	45.2	30.7
Stay faithful to partner	4.5	6.1	3.8	4.5	4.2	5.3	3.0	5.2	5.1	2.1	3.9	3.8
Avoid contaminate d blood	30.6	54.1	29.3	47.9	30.0	51.1	36.5	50.3	29.9	32.3	33.8	42.0
Condom use for each sex	71.2	57.6	67.2	57.1	69.4	57.4	48.4	35.2	34.1	27.3	42.5	31.5
Avoid needle sharing	43.8	54.1	43.9	56.6	43.9	55.3	59.5	57.6	37.9	41.8	50.6	50.3
Avoid sex with CSW	30.0	37.1	24.7	56.9	27.6	46.7	11.5	46.1	9.8	43.3	10.8	44.8
Limit sex with trusted partner	1.2	11.2	1.4	13.4	1.3	12.3	2.3	9.4	4.2	9.6	3.1	9.5

<b>Type of Occupation</b>	<b>Males</b>			<b>Females</b>			<b>Total</b>		
	<b>Urban</b>	<b>Rural</b>	<b>Total</b>	<b>Urban</b>	<b>Rural</b>	<b>Total</b>	<b>Urban</b>	<b>Rural</b>	<b>Total</b>
Farmer	77.1	80.7	78.8	1.5	1.8	1.7	39.6	40.9	40.1
Labor	1.2	3.2	2.2	0.9	0.6	0.8	1.1	1.9	1.5
Professional/service holder	5.6	3.5	4.6	0.3	0.6	0.5	3.0	2.0	2.5
Businessmen	10.0	10.5	10.2	0	0.3	0.2	5.0	5.3	5.2
Housewife	0	0	0	93.1	94.4	93.7	46.3	47.6	46.9
Others	5.2	0.6	3.1	0.9	0.3	0.7	3.2	0.6	1.9

## APPENDIX B

### Participant Narrative 1

*(ARH Life Skills Workshop helped Rabbi to improve himself)*

Rubaiat Al Rabbi reads in class nine at Palardi High School, Gournadi, Barisal. Before participating in an ARH Life Skills Workshop, Rubaiat was not attentive to his studies and frequently skipped school. He used to spend most of his time hanging out with his friends and watching bad films. During this time, he also began smoking heavily and taking drugs along with many of his friends. Giving into the pressure of his friends, he believed his behavior was the 'right' thing to do and that his habits were signs of manliness. Rubaiat noted that when he started, it was easy—he did not have to buy cigarettes or drugs, as his friends offered them to him for free. But as he gradually became addicted, Rubaiat realized that he wanted more but did not have the resources to pay—so he began stealing money from his parents to get what he needed. During this time, Rubaiat used to come home late to the house, keeping an irregular schedule. His parents became very concerned. It was during this time that Rubaiat participated in a 4-day Life Skills Workshop supported by BCCP under HCP. Through the workshops, he began a period of reflection and self-learning. He realized how he was behaving and how he was affecting those around him, especially those for whom he cared. In particular, for Rubaiat, the session on "What my family expects of me?" affected him powerfully. Through that session he recalled that he began reflecting on his behavior and how it affected his parents. He became aware of his negative habits and how they were affecting his own health and those around him. He started to feel guilty about his selfish behavior and began to figure out how he could change himself. At first it was difficult for him to change—as he was addicted and closely tied in with his group of friends who were also engaged in self-destructive habits. From the Life Skills Workshop, however, he said that he learned that sometimes we have to face difficulties in our life and that with strong willpower, one can overcome any problem that arises. It is up to oneself to become who one wants to be, he commented. After much hard work and commitment following the workshop, Rubaiat is now going to school regularly and doesn't spend much time with his old friends. He maintains contact with the NGO and has become an advocate for others who face similar challenges as he did. Though he does not hang out with his old friends much anymore, he does share his realizations and learning with them when he can, hoping to help them find a better path in life as well. His parents are very happy with him now and proud of what their son has overcome. They are thankful for the resources and experience that the NGO and ARH program has provided.



## Participant Narrative 2

### *(Understanding herself and respecting her parents)*

Jasmine is a student of class eight. Not long ago, she found herself very depressed and moody, increasingly not interested in anything. Her temperament appeared to be always “hot” and unpredictable. To make the situation worse, Jasmine’s relationship with her mother was struggling. Her mother, often confused by Jasmine’s behavior, became very disturbed and unsure of how to respond to her daughter’s behavior.

Though her mother tried to talk to Jasmine about her depression, she found herself getting angry and frustrated. Around this time, Jasmine was asked to attend a Life Skills Workshop by CPD NGO, supported by BCCP. During the workshop, Jasmine reports that she learned her unpredictable feelings are a normal part of puberty and growing up. She also learned many useful things about her reproductive health. For example, she recalls learning that it would not be wise to fall in love right away since early marriage and pregnancy can harm her body and limit her studies and her future. Through the workshop, Jasmine became pleasantly surprised about herself and the changes she was undergoing. She also found herself better able to understand her moods—and her relationship with her mother. She felt bad for her mother who had been concerned and worried about her own



behavior, and how Jasmine had treated her disrespectfully and harshly. As a result of the workshop, Jasmine decided that she would be friendlier to her mother and more open with her about her feelings. She decided she would like to be able to talk to her more openly—and to be able to share everything with each other. She was so excited about her new realization that not only did she discuss the workshop sessions with her parents, but she also talked about them with her friends and her friends’ parents. She even urged her friends’ parents to become more accepting of their children and to listen to their problems in order to provide more helpful advice to them. As a result of her discussions, Jasmine’s parents made up their mind to listen to her more carefully and be more open and loving. For Jasmine, she believes the skills that she learned will help her face her daily challenges with an increased ability to discuss difficult issues with her parents and a better understanding of herself.

## Participant Narrative 3

*(How to say No)*

Jesika Lives in sub town of Rajshahi and is in class IX. Jesika felt that she was not a good student compared to her peers and that it was very hard for her to understand her lessons. To increase her performance she told her parents about her weaknesses. Jesika's parents, therefore, arranged for a house tutor for her. Jesika became very happy about her parent's decision. Her tutoring sessions started out well, and she felt like she was learning a lot. Over time, however, the tutor started acting differently toward her. The tutor began holding Jesika's hand and making inappropriate and indecent gestures with his body language during the session. While they sat studying, her tutor would put his leg against Jesika's leg and move it inappropriately. While the behavior was disgusting to Jesika, she worried that complaining might cause her parents to get upset or angry with her. During this time, Jesika attended a Life Skills Workshop by Tilottama NGO, supported by HCP. Jesika learned many useful things from the workshop about herself, puberty and reproductive health. She learned "how to say no" politely in difficult situations, and how to make a person of the opposite sex respect her decision (or lack of interest). As a result of the workshop, Jesika decided to discuss her tutorial situation with her parents. Her parents were surprised and concerned about their daughter and decided to resolve the matter together. Jesika's parents and she decided to talk to the tutor directly. The tutor admitted that his attitude and behavior towards Jesika had been wrong. Jesika also learned from the workshop that it is very natural for people to feel attraction to each other while growing up. This is part of the emotional changes that happen during puberty. However, she also learned that this behavior must be controlled and appropriate. Indecent advances are not acceptable and one needs to do something about them if they occur. She also understood that that falling in love at an early age is not wise, as it could cause harm to her studies and future life, which she was spending so much time and effort on at this stage in her life.



## Participant Narrative 4

### (Tanvhir Sweety recovers her fear of Menstruation)

Tanvhir Sweety is a student of class nine in Palordi High School at Gournadi, Barisal. Tanvhir recently started menstruating. Tanvhir's mother soon noticed. From that time onward Tanvhir's life became miserable. Her mother, holding on to some strong misconceptions and beliefs about menstruation, began to severely restrict Sweety's behavior and freedom. She was suddenly not allowed to go to school while she was menstruating, nor was she allowed to eat any eggs, meat, milk, or fish. Sweety became very unhappy with the restrictions and did not understand the reasoning behind them. While menstruating, Sweety's mother also gave her dirty pieces of old and torn cloths to use as padding. She began suffering from periodic fevers related to her menstruation. Malnutrition also made her so weak. During this period, a local NGO in Sweety's community offered her a chance to attend one of the Life Skills Workshops supported by ARH. During the workshop, Sweety learned of the many useful things about the physical and mental changes during puberty and how to handle them wisely. She also learned about changes during pregnancy and risky behaviors that can lead to negative consequences. Importantly, she also learned how to prevent them. As menstruation was a topic, Sweety learned about what happens during this time of the month in her body and how to care of herself. She learned that the behaviors taught by her mother are not appropriate, nor healthy and that she should change those behaviors in order to maintain a healthier body. According to Sweety, what she learned from the workshop made her life a lot easier. She also learned appropriate sources of information on adolescence and reproductive health, such as the ARH Q&A booklets. As a result, she no longer went straight to her mother and sisters with questions since she knew that some of that information may be incorrect or that they would not tell her the whole truth. Sweety decided to read parts of the ARH booklets to her mother as well so that they could talk and learn about the right information together. She tried do this with an open, friendly and respectful approach without getting angry, like she had learned in the workshop.



Sweety decided not limit her learning to herself and her family. Since she felt so good about what she had learned, she decided to help out some of her peers who had many of the same questions and concerns that she had had. Sweety has become a sort of mentor for her peers with respect to reproductive health issues. During her leisure time, she along with her cousin shares the life skills knowledge with the adolescent girls in their village. She also shares the knowledge with her adolescent relatives. While in school, she regularly sits with her friends and discusses topics from the workshop. Sweety said, "If every adolescent in Bangladesh gets an opportunity to participate in life skills workshop, it will be a great help for them to take care of themselves."