STEP UP

STRENGTHENING EVIDENCE FOR PROGRAMMING ON UNINTENDED PREGNANCY

GHANA

RESEARCH REPORT

MARCH 2015

Understanding the Reproductive Health Needs of Adolescents in Selected Slums in Ghana: A Public Health Assessment

SELINA F. ESANTSI, FRANCIS ONYANGO, GLORIA J. QUANSAH ASARE, EMMANUEL O. KUFFOUR, PLACIDE TAPSOBA, HARRIET BIRUNGI AND IAN ASKEW

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SELINA F. ESANTSI[1], FRANCIS ONYANGO[1], GLORIA J. QUANSAH ASARE[2], EMMANUEL O. KUFFOUR[1], PLACIDE TAPSOBA[1], HARRIET BIRUNGI[1] AND IAN ASKEW[1]

[1] Population Council

[2] Ghana Health Service

STEP UP RESEARCH REPORT

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Please address any inquiries about STEP UP to the RPC co-directors:

1. Dr. Harriet Birungi, hbirungi@popcouncil.org
2. Dr. Ian Askew, iaskew@popcouncil.org

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Acronyms

AIDS	Acquired Immune Deficiency Syndrome
ASRH	Adolescent Sexual and Reproductive Health
BAR	Brong Ahafo Region
ERC	Ethical Review Committee
FGD	Focus Group Discussion
GAR	Greater Accra Region
GDHS	Ghana Demographic and Health Survey
GH¢	Ghanaian Cedi
GSS	Ghana Statistical Service
HIV	Human Immunodeficiency Virus
IRB	Institutional Review Board
JSS	Junior Secondary School
MDG	Millennium Development Goals
MoE/GES	Ministry of Education/Ghana Education Service
NGO	Non-Governmental Organization
RH	Reproductive Health
SHEP	School Health Education Program
SRH	Sexual and Reproductive Health
SSS	Senior Secondary School
STI	Sexually Transmitted Infection
UNESCO	United Nations Educational, Scientific and Cultural Organization
WHO	World Health Organization

Executive Summary

Over the past decade, adolescent sexual and reproductive health (ASRH) concerns have increasingly been on the development agenda of the Government of Ghana. This concern has been driven by such factors as early age of sexual debut, early childbearing and prevalence of HIV/AIDS among this sub-group of the population. Increasingly, research and programme experiences have shown that it is neither feasible nor productive to focus on one isolated behavioural indicator such as providing adolescents with information and services on HIV/AIDS only without addressing the broader set of adolescent sexual and reproductive health concerns. Understanding the nature and extent of individual and group variations (for instance, place of residence and gender-based differences) and their causes, correlates and consequences is essential for designing effective programmatic responses to meet the diverse sexual and reproductive health needs of adolescents in Ghana.

The overall objective of the study was to generate evidence on the knowledge, perceptions and practices regarding ASRH among slum communities in Ghana. The specific objectives were to: (1) assess the reproductive health knowledge, behaviour and perceptions of adolescents living in slum settings; and (2) examine the perceptions of parents, guardians and community members regarding adolescent sexual and reproductive health. The study was conducted in March 2013 in four urban slums in Ghana (two from the Greater Accra Region and another two from Brong Ahafo Region). Structured interviews were conducted with 1,303 adolescents aged 13-19 years and 626 parents/guardians focus group discussions held with 42 community leaders drawn from schools, non-governmental organizations/community based organizations serving youth, assemblymen, women leaders and chiefs.

Key Findings

- About one-third of the adolescents (32% of the males and 34% of the females) had ever had sexual intercourse. The median age at first sex among adolescents in the study was 15 years among males and 16 years among females. The proportion that had ever had sexual intercourse was higher among those who were not attending school at the time of the survey than among those who were at school (49% and 26% among males and 61% and 21% among females respectively).
- Slightly more than one-third of the adolescents who had ever had sex (32% of the males and 39% of the females) reported that the first sexual intercourse was unplanned. In addition, 12% of the males and 16% of the females who had ever had sex reported having experienced forced sex. Thirteen per cent of the males and 24% of the females reported that they had ever been touched on their private parts against their will.
- Although virtually every adolescent interviewed had heard of contraceptives, the proportion that used a method to prevent pregnancy at first or last sexual activity was lower. In particular 46% of the males and 49% of the females who had ever had sex used a method to prevent pregnancy at first sexual encounter. In addition, 52% of the males and 51% of the females who had ever had sex reported using a method to prevent pregnancy at last sexual intercourse.
- Among adolescents who had ever had sexual intercourse, 8% of the males reported having ever made a girl pregnant while 26% of the females reported having ever been pregnant. For the majority of adolescents who had ever been pregnant or made a girl pregnant, the most recent

pregnancy was unintended (86% of the males and 74% of the females). In addition, 57% of the males who had ever made a girl pregnant and 23% of the females who had ever been pregnant reported that the last pregnancy resulted in abortion.

- For the majority of the adolescents, school was the major source of information on SRH issues including puberty (79% of the males and 64% of the females) and reproduction (74% of the males and 65% of the females). In addition, schools were one of the main preferred sources of information on these topics (for puberty: 37% of males and 28% of females; for reproduction: 40% of males and 33% of females). Nonetheless, the majority of the adolescents reported that it was easy for them to talk about important things with their parents, especially mothers (85% of males and 78% of females).
- Nine out of ten (91%) parents/guardians were willing to allow their adolescent children to receive reproductive health information and services. An equally high proportion of parents/guardians (97%) wanted reproductive health information to be provided in schools although 87% reported that they were comfortable discussing sexual-related matters with their adolescent children. The majority (61%) reported that they ever discussed sexual matters with their adolescent children although 66% indicated that they needed more information especially on family planning, contraceptive use, sexually transmitted infections (STIs) and HIV/AIDS to enable them have meaningful discussions.
- Most community opinion leaders approved the use of contraceptives by adolescents, mainly to avoid teenage pregnancy (which they felt was quite prevalent in the community), abortion and the risk of contracting sexually transmitted infections. They recommended various strategies for improving SRH information and services for adolescents including: appropriate leadership role by the Ghana Health Services; involvement of all stakeholders including government; traditional and church leaders; engagement of community members in the mobilization of resources; ensuring that information and services are available and accessible to adolescents; conducting information, education and communication campaigns through various channels; encouraging adolescent social networks on SRH issues; and formulating legislation to against individuals who make adolescent girls pregnant.

Programmatic Implications

The findings of the study have the following implications for adolescent SRH programs:

- There is need to intensify efforts to inform and educate adolescents living in the slums about responsible and healthy attitudes towards sexuality, delaying the onset of sexual activity and reducing risky sexual behaviours.
- There is need to incorporate sex education appropriate for each educational level, to ensure that information is communicated by individuals with appropriate training that takes into account the special needs at different levels, and to develop appropriate curriculum methodologies and materials that recognize gender differences in SRH knowledge, attitudes and practices.
- There is need to involve all stakeholders including parents/guardians and community leaders in addressing adolescent SRH needs. This will, in turn, enhance community participation and address cultural barriers and inhibitions to the optimum realization of ASRH.

- Interventions that address sexual coercion and violence should be an integral component of current adolescent reproductive health programs. Such interventions should empower adolescents to know what coercion is and signs of violence, as well as where to seek services. They should also promote public acknowledgment of the prevalence of sexual coercion and of the gender inequality that fosters it.

Introduction

Consistent with observed trends in the rest of Africa over the last two to three decades, Ghana's population is becoming increasingly urbanized. It is estimated that 51% of the country's population in 2010 was living in urban areas (Ghana Statistical Service (GSS), 2012). The level of urbanization varies by region; Greater Accra has the highest proportion of urban population (91%) and Brong Ahafo has a level of urbanization (45%) below the national average (GSS, 2012). Rapid urbanization poses myriad challenges such as traffic congestion, pollution and slum growth. Ghana has, for instance, a slum prevalence (i.e. the occurrence of shelter deprivations) of 47%. The informal settlements are characterized by poor sanitation and educational facilities, crime and risky sexual behaviours that expose inhabitants to unwanted pregnancies and sexually transmitted infections (STIs) including HIV/AIDS (UN-HABITAT, 2003).

Besides rapid urbanization, developing countries are faced with a growing population of young people, also referred to as the *youth bulge* (Agbor et al., 2012). Some of the challenges associated with slum settlements, such as higher levels of crime and risky sexual behaviours, mostly affect youth because they are in the developmental stages of their lives and can be attracted to these behaviours (Steinberg, 2007). Rapid urbanization and the *youth bulge*, therefore, present socio-economic and health challenges for governments in developing countries including Ghana. As of 2010, for instance, adolescents aged 10-19 years accounted for 25% of the total population of Ghana (GSS et al., 2009). Young females aged between 15-19 years represented 20% of women in the reproductive age group of 15-49 years (GSS et al., 2009), which is an indication of a very high built-in momentum for population growth. High rates of population growth, in turn, exert pressure on available resources and services thereby contributing to poor living conditions in a vicious cycle. Addressing the sexual and reproductive health (SRH) needs of young people is therefore one strategy for breaking the vicious cycle and has been considered as key to achieving the Millennium Development Goals (MDGs) relating to reducing childhood and maternal mortality as well as poverty (World Health Organization [WHO], 2011).

Although there is abundant literature on the sexual and reproductive health knowledge and experiences of adolescents aged 10-19 years, few studies have focused on the nature and extent of sub-population variations—particularly by place of residence (such as slum and non-slum areas)—in Ghana. However, youth programmes are being implemented in such settings, often with little understanding of the circumstances and needs of the young people they target (Erulkar, 2007). Studies elsewhere show that slum residents, particularly children and adolescents, have worse health and reproductive health outcomes compared to non-slum dwellers (Mboup, 2003). It is therefore important to understand the SRH circumstances of adolescents living in slums in order to design appropriate programs that will enable them realize meaningful transition to adulthood.

Study Objectives

The overall objective of the study was to generate evidence on the knowledge, perceptions and practices regarding adolescent sexual and reproductive health (ASRH) among slum communities in Ghana. The specific objectives were:

1) To assess the reproductive health knowledge, behaviour and perceptions of adolescents living in slum settings; and
2) To examine the perceptions of parents, guardians and community members regarding adolescent sexual and reproductive health.

Methodology

This was a cross-sectional diagnostic study that used both qualitative and quantitative methods to assess the state of knowledge and perceptions about ASRH needs and services. The study was conducted in March 2013 in four urban slums in Ghana. Two of the slums were from the Greater Accra Region (GAR), Nima and Ashiaman, while two were from Brong Ahafo Region (BAR), Sunyani and Atebubu (see Appendix 1). The slums were purposively identified from four districts in the two regions. A list of all enumeration areas (EAs) in the sites was obtained; these were zoned into three clusters per site, from which households were randomly selected.

In each eligible household, a maximum of two adolescents aged 13-19 years were targeted for interview. A total of 1,303 adolescents aged 13-19 years were interviewed. They were asked about sources of information on ASRH, sexual debut and recent sexual activity, knowledge and use of contraceptives, knowledge of pregnancy and STIs, perceptions about ASRH services, and time use documenting hours spent on various activities in what they considered a usual day.

In addition, the parents/guardians of adolescents were identified from every other eligible household and targeted for interview. A total of 626 parents/guardians were interviewed using a structured questionnaire. Information was collected on their attitudes and perceptions about ASRH. About 66% of the guardians interviewed were the biological parents of the adolescents. Other guardians included grandparents (10%) and uncles and aunties (15%). Four in every five guardians were females. Slightly over half (57%) of the guardians had one adolescent between the ages of 13 and 19 years while about a third (31%) had two.

Focus group discussions were also conducted with 42 community opinion leaders drawn from schools, non-governmental organizations/community based organizations serving youth, assemblymen, women leaders and chiefs. Communities had a pre-existing group of opinion leaders (gate keepers) in the four sites and this group was contacted with the assistance of the area assemblymen (local government authority representative). Group discussions were held with an average of 10 persons (males/females) per site. The discussions were conducted in 'Twi' (local dialect) and audio-recorded with each lasting about one hour and half. Issues discussed included knowledge about ASRH needs, accessibility of ASRH information and services to adolescents aged 13-19 years and recommendations for improving ASRH services.

Data Management and Analysis

Data were centrally managed in Population Council Accra office. Quantitative data were entered in EpiData 3.1 and analysed using STATA Version 11. Analysis entailed simple frequencies and cross-tabulations. Qualitative data were, on the other hand, transcribed, translated into English and coded into themes for analysis using QRS Nvivo version 8. The results were organized according to the major themes identified in the FGD guide as well as emerging themes.

Ethical Procedures

The study received ethical approval from Ghana Health Service Ethical Review Committee (ERC) and Population Council's Institutional Review Board (IRB) in January 2013 and October 2012 respectively. Written informed consent was obtained prior to all data collection activities. The consent forms were read out aloud by interviewers to illiterate respondents whereupon the respondent was asked if they agreed to participate. Prospective study participants were provided with information about the study before any consent to participate was sought. Participants were adequately informed about the following: aim of the study and methods to be used; possible discomfort; anticipated benefits and potential risks and follow-up of the study; confidentiality of information provided; and their right to abstain from participating in the study, or to withdraw from it at any time, without reprisal. A section of the respondents (13-17 years) were minors and thus, informed consent was sought from their parents/guardians first before obtaining assent from the adolescents themselves. Adolescents aged 18-19 years provided individual written consent only.

Profile of Adolescents

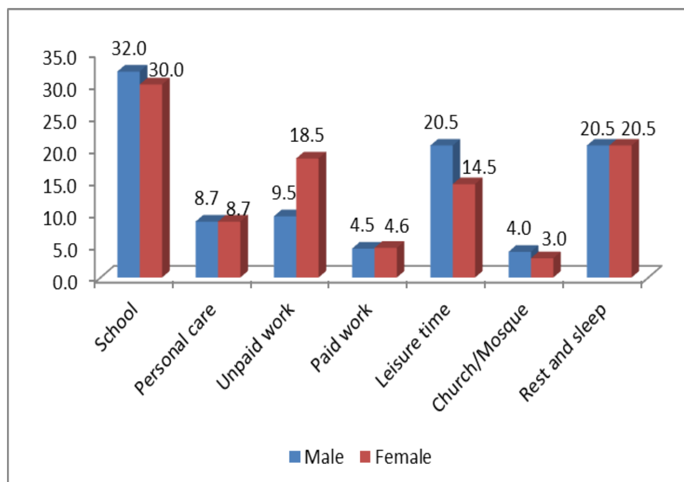
More than half of the adolescents (58%) were females and 55% adolescents were from the Greater Accra region (54% of males and 56% of females) (Table 1). Adolescents aged 18-19 years comprised the highest proportion (40%) of the sample (42% of males and 38% of females). Nearly all (96%) of the adolescents had ever attended school with a significantly higher proportion of males compared to females having ever attended school (99% and 95% respectively; $p<0.01$). Slightly over half of the adolescents (57%) had completed primary education. Among respondents who had ever attended school, 75% were still in school (78% of males and 74% of females). Fifty five percent of the adolescents belonged to the Christian denomination, while 43% indicated they were Muslims.

Nearly all adolescents interviewed (97%) had at least one living parent. Among those with at least one living parent, 70% reported that a parent was living with them in the same household, with significant differences by sex (74% of males and 67% of females; $p<0.05$). In addition, slightly more than one-quarter (26%) of the adolescents had ever worked for pay, with a significantly higher proportion of males compared to females having worked for pay (34% and 21% respectively $p<0.01$). Those who worked earned an average of GH¢ 40 (Ghanaian Cedi) per week. Among those who had ever worked for pay, 44% of both male and female adolescents were working at the time of the survey. They were engaged in sales (41% - street hawking or managing stores), services (30% - fetching of water, tending to animals, or laundry) and technical services (22% - mechanics or dressmaking). About 14% of the adolescents who were not working at the time of the interview indicated that they were looking of work.

Table 1: Percent distribution of adolescents by background characteristics			
Characteristics	Male (%) (N=547)	Female (%) (N=756)	Both sexes (%) (N=1,303)
Region			
Greater Accra	53.8	55.8	55.0
Brong Ahafo	46.3	44.2	45.1
Age (years)			
13-15	26.5	34.5	31.2
16-17	31.6	27.4	29.2
18-19	41.9	38.1	39.7
Ever attended school	$p<0.01$		
Yes	98.7	94.6	96.3
No	1.3	5.4	3.7
Currently attending school[a]			
Yes	77.8	73.7	74.5
No	22.2	26.0	24.4
Missing	0.0	0.3	0.2
Highest education level			
No schooling	1.3	5.4	3.7
Primary	55.6	58.7	57.4
JSS	37.7	30.8	33.7
SSS and above	5.5	5.0	5.2
Religious affiliation			
None	3.7	1.3	2.3
Christian	51.9	57.0	54.9
Muslim	44.4	41.7	42.8
Parental survival status			
Both parents alive	74.2	71.0	72.4
One parent alive	22.3	25.5	24.2
Both parents dead	3.3	3.0	3.2
One parent dead/don't know other	0.2	0.4	0.3
Parental living arrangements			
Both parents live in household	32.6	32.3	32.4
One parent lives in household	41.3	34.4	37.3
No parent lives in household	17.2	21.4	19.6
No/don't know	8.9	11.6	10.5
Ever worked for pay			
Yes	33.6	20.5	26.0
No	66.4	79.5	74.0
Currently working for pay[c]			
Yes	43.5	43.9	43.7
No	56.0	54.8	55.5

[a]Among respondents who had ever attended school (540 males and 715 females); [b]Among respondents with at least one living parent (528 males and 730 females); [c]Among respondents who had ever worked for pay (184 males and 155 females); Percentages may not sum to 100 due to rounding and or missing cases; JSS: Junior secondary school; SSS: Senior secondary school.

Figure 1: Percent distribution of time adolescents spend on various activities



Results from the time use data show that as anticipated, adolescents spent about a third of their day in school (32% for males and 30% for females; Figure 1). Another activity that took a substantial proportion of adolescents' time during the day was leisure (21% for males and 15% for females). It is also worth noting that female adolescents spent relatively longer time on unpaid work (19%) compared to their male counterparts (10%). Adolescents assist with household chores including fetching water, cleaning utensils, laundry, cooking, working on family farmlands or tending to animals. These activities are conducted both within and outside the home through assistance to neighbours and other relations. The proportion of time spent on paid work was similar for both male and female adolescents (5% in each case).

Adolescent SRH Knowledge, Attitudes, and Perceptions

Awareness and Knowledge

Nearly all adolescents interviewed (99.6%) had heard of family planning with no significant difference between male and female respondents (99.6% in each case). Similarly, 97% of the adolescents had heard of HIV/AIDS. However, a lower proportion of the adolescents (65%) had heard of sexually transmitted infections (STIs). The high level of awareness about family planning and HIV/AIDS among adolescents in the study is consistent with national trends. For instance, according to the 2008 GDHS, 93% of adolescent girls aged 15-19 years had heard about family planning (GSS et al., 2009). Similarly, 98% of adolescent girls and a similar proportion of adolescent boys had heard about HIV/AIDS (GSS et al., 2009). Among adolescents in the study who had heard of family planning, the most commonly known method was the condom (96% of males and 84% of females; Table 2). Other commonly known methods were pills (65% of males and 69% of

Table 2: Percent distribution of adolescents who knew of family planning by type of method known

Methods	Male (%) (N=547)	Female (%) (N=756)	Both sexes (%) (N=1,303)
Condom	96.1	83.8	95.1
Pill	64.6	68.9	67.0
Injection	50.7	60.6	56.4
Abstinence	47.7	56.3	52.7
Withdrawal	55.2	40.8	46.8
Emergency pill	32.3	40.9	37.3
IUD	5.0	7.7	6.6
Implants	1.8	7.2	4.9
Female sterilization	2.4	2.4	2.4
Male sterilization	2.4	2.0	2.2
Jelly/foam	0.2	0.8	0.5

females), injection (51% of males and 61% of females), periodic abstinence/rhythm (48% of males and 56% of females), withdrawal (55% of males and 41% of females), and emergency pills (32% of males and 41% of females).

SRH Attitudes

To gauge adolescents' attitudes towards SRH issues, a series of statements which elicited true or false responses were asked. The results are presented in Table 3. Nearly three-quarters of the adolescents (64%) agreed that a woman can get pregnant the first time she has sexual intercourse (63% of males and 64% of females). A similar proportion of the adolescents (64%) disagreed with the statement that a woman stops growing after she has had sex for the first time, with a significantly higher proportion of males compared to females disagreeing with the statement (70% and 60% respectively). In addition, 63% of the adolescents agreed that a woman is likely to be pregnant if she has sex halfway between periods, with a significantly higher proportion of females compared to males agreeing with the statement. However, slightly more than half (53%) of the adolescents believed that masturbation causes serious damage to health (Table 3).

Table 3: Percent distribution of adolescents by attitudes towards sexual and reproductive health issues

Indicators	Male (%) (N=547)	Female (%) (N=756)	Both sexes (%) (N=1,303)
A woman can get pregnant the first time she has sexual intercourse			
True	63.1	64.2	63.7
False	22.5	18.8	20.3
Don't know/Not sure	14.4	17.0	16.0
A woman stops growing after she has had sex for the first time			
True	13.7	15.1	14.5
False	69.5	59.7**	63.8
Don't know/Not sure	16.8	25.2	21.7
Masturbation causes serious damage to health			
True	59.2	48.0**	52.7
False	9.3	9.4	9.4
Don't know/Not sure	31.5	42.6	37.9
A woman is likely to be pregnant if she has sex halfway between periods			
True	59.4	66.0*	63.2
False	13.4	11.6	12.4
Don't know/Not sure	27.2	22.4	24.4

*p<0.05; **p<0.01.

Sources of SRH Information

Table 4 presents the current and preferred sources of information on adolescent reproductive health. School teachers were the current source of information on puberty (79% of males and 64% of females) and sexual and reproductive system including sperm and egg production as well as how pregnancy occurs (74% of males and 65% of females). This shows that the school system does provide adolescents with some information on sexual maturation and related issues. However, a higher proportion of females than males would prefer to obtain information on puberty from their mothers (35% and 18% respectively). Although the school system was the preferred source of information on reproduction for both male and female adolescents (40% and 33% respectively), a substantial proportion preferred to obtain the information from their mothers (14% of males and 29% of females).

Table 4: Percent distribution of adolescents by source of sexual and reproductive health information				
Source of information	Male		Female	
	Current source (%) (N=547)	Preferred source (%) (N=547)	Current source (%) (N=756)	Preferred source (%) (N=756)
Puberty				
School teacher	79.0	37.1	63.6	27.8
Mother	6.6	18.3	15.3	35.2
Father	0.2	6.0	0.3	0.4
Other relatives	2.4	11.8	7.5	14.1
Friends	7.3	11.3	5.7	10.9
Books/magazines/Films/videos	1.5	5.1	2.9	3.3
Other	3.1	10.4	5.2	8.5
Reproduction				
School teacher	74.0	39.5	64.6	33.1
Mother	3.7	13.7	11.6	28.6
Father	0.9	4.9	0.1	0.7
Other relatives	2.0	9.9	5.4	12.9
Friends	11.9	12.8	8.2	10.2
Doctors	0.0	5.1	0.1	2.7
Books/magazines/Films/videos	2.4	4.6	3.1	4.9
Other	5.1	9.5	6.9	7.1
Relationships				
School teacher	32.2	21.0	23.7	15.3
Mother	4.6	14.8	10.2	29.2
Father	0.9	7.1	0.1	0.9
Other relatives	4.1	13.3	8.5	19.1
Friends	49.0	26.5	45.5	22.2
Doctors	0.0	1.3	0.1	0.8
Books/magazines/ Films/videos	5.2	5.9	5.1	4.8
Other	4.2	10.1	6.9	7.7

Interestingly, almost half of the adolescents (49% of males and 45% of females) obtained information on relationships principally from their friends but fewer preferred this source (27% of males and 22% of females). A higher proportion of females than males preferred to obtain information on relationships from their mothers (29% and 15% respectively). The contribution of mass media as a source of information for the adolescents is conspicuously low. Newspapers, magazines, radio, television and the internet are sources that are closely associated with literacy and urban residence.

Table 5: Percent distribution of adolescents by communication with parents			
Indicator	Male (%)	Female (%)	Both sexes (%)
Talking to father about important things	(N=425)	(N=591)	(N=1,016)
Easy	60.7	46.0	52.2
Difficult	19.3	28.3	24.5
Average	13.4	17.6	15.9
Does not see parent	6.6	8.1	7.5
Frequency of discussing sex-related matters with father	(N=397)	(N=542)	(N=939)
Often	1.8	2.6	2.2
Occasionally	11.1	6.5	8.4
Never	87.2	91.0	89.4
Talking to mother about important things	(N=510)	(N=679)	(N=1,189)
Easy	85.1	77.8	80.9
Difficult	5.7	9.0	7.6
Average	6.5	8.5	7.7
Does not see parent	2.8	4.7	3.9
Frequency of discussing sex-related matters with mother	(N=538)	(N=734)	(N=1,272)
Often	4.8	12.1	9.0
Occasionally	15.6	29.2	21.7
Never	79.6	61.7	69.3

Slightly over half (52%) of the adolescents found it easy to communicate with their fathers while 81% found it easy to communicate with their mothers about important things to them (Table 5). Interestingly, a higher proportion of adolescents indicated that they had occasional chats on sex-related issues with their mothers (16% of males and 29% of females) than their fathers (11% of males and 7% of females). A few of them indicated that they never got the opportunity to talk to their fathers (8%) or mothers (4%) because they do not see them.

Adolescent Sexual Behaviours

Sexual Activity

One-third of the adolescents (33%) had ever had sexual intercourse with no significant difference between male and female respondents (32% and 34% respectively; p=0.47) The proportion of adolescent girls in the study that had ever had sexual intercourse is similar to that of adolescent girls aged 15-19 years in the 2008 GDHS i.e. 37% (GSS et al., 2009). The median age at first sex among adolescents in the study was 15 years among males and 16 years among females. The median age at first sex among girls in the study was also similar to that of adolescent girls aged 15-19 years in the 2008 GDHS (i.e. 16 years).

There were significant variations in the proportions of adolescent males that had ever had sexual intercourse by age, current school attendance, parental living arrangements, and whether they had ever worked for pay (Table 6). As would be expected, the proportion of adolescent males that had ever had sexual intercourse was highest among those aged 18-19 years and lowest among those aged 15 years and below (47% and 8% respectively) and was higher among those who were not attending school at the time of the survey than among those who were at school (49% and 26% respectively). The proportion that had ever had sexual intercourse was also higher among those whose parents were not living in the same household than among those with at least one parent living in the household. The proportion that had ever had sexual intercourse was more than twice as high among those who had ever worked for pay than among those who had not (51% and 22% respectively).

Among female adolescents, there were significant variations in the proportions that had ever had sexual intercourse by different socio-demographic characteristics (Table 6). In particular, the proportion of adolescent girls who had ever had sexual intercourse was highest in Brong Ahafo and lowest in the Greater Accra region (41% and 28% respectively). Similarly, the proportion of adolescent girls that had ever had sexual intercourse was more than twice as high among those who had never than among those who had ever attended school (73% and 32% respectively). Variations by current school attendance, parental living arrangements and whether the respondent had ever worked for pay are similar to those of male adolescents.

Table 2: Percent distribution of adolescents who had ever had sexual intercourse by background characteristics

Characteristics	Male (%)	Female (%)
Region	p=0.05	p=0.01
Greater Accra	28.2	28.0
Brong Ahafo	36.0	41.0
Age (years)	p<0.01	p<0.01
13-15	8.3	6.9
16-17	31.2	30.9
18-19	47.2	60.1
Currently attending school	p<0.01	p<0.01
Yes	26.4	21.1
No	49.2	60.8
Ever attended school	p=0.15	p<0.01
Yes	31.5	31.5
No	57.1	73.2
Highest education level	p<0.01	p<0.01
No schooling	57.1	73.2
Primary	25.3	26.1
JSS	39.3	39.1
SSS and above	40.0	47.4
Parental living arrangements	p<0.01	p<0.05
Both parents live in household	23.8	27.5
One parent lives in household	31.2	32.3
No parent lives in household	36.3	39.7
No/don't know	51.1	38.9
Ever worked for pay	p<0.01	p<0.01
Yes	50.5	51.6
No	22.3	29.1

P-values are from Chi-square test of differences in the distribution of respondents who had ever had sexual intercourse by background characteristics among males and females; JSS: Junior secondary school; SSS: Senior secondary school.

Circumstances of Sexual Initiation

Slightly more than one-third (36%) of the adolescents reported that the first sexual intercourse was unplanned, with no significant difference between male and female respondents (32% and 39% respectively; p=0.31; Figure 2). About one-fifth (19%) of the adolescents interviewed reported that they had ever been touched on their private parts when they did not want, with a significantly higher proportion of females compared to males reporting such experience (24% and 13% respectively; Figure 3). Among respondents who had ever had sexual intercourse, 15% reported having experienced forced sex (12% of males and 16% of females; p=0.25).

Figure 2: Percent distribution of adolescents who had ever had sexual intercourse by circumstances of first sex

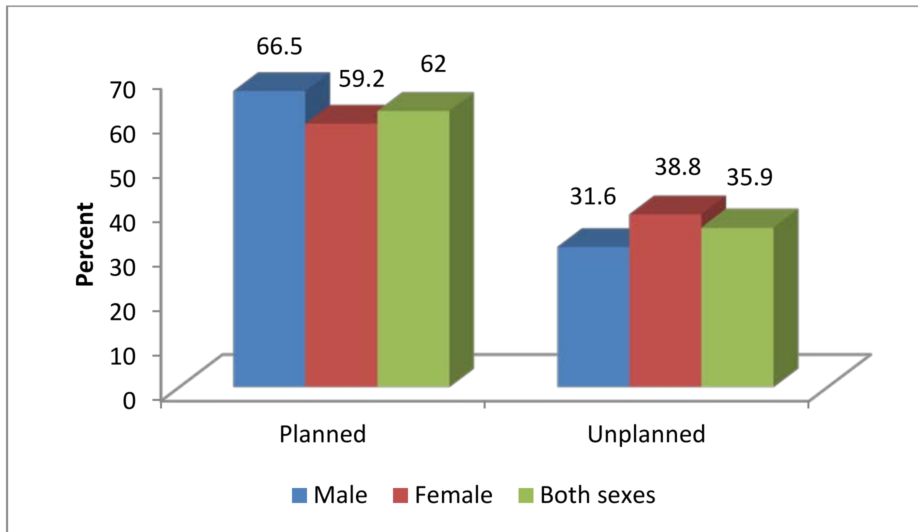
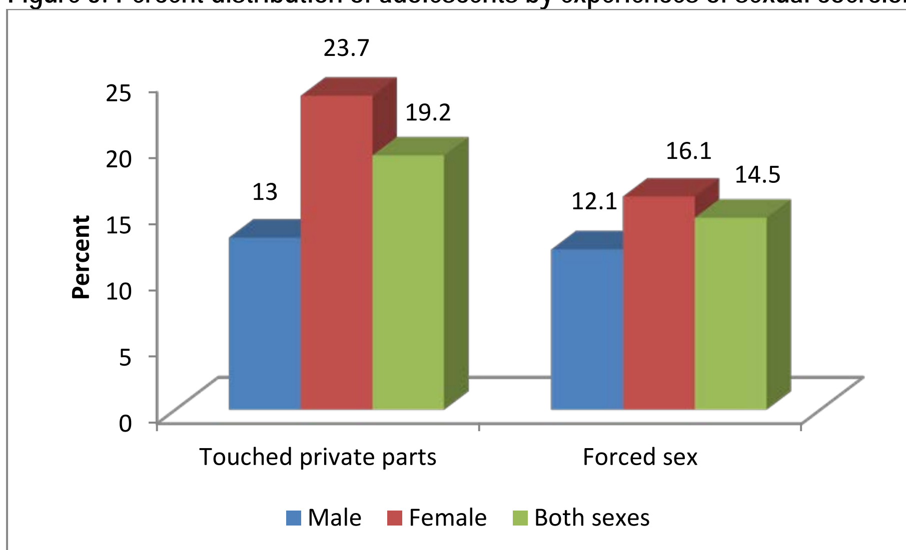


Figure 3: Percent distribution of adolescents by experiences of sexual coercion



In addition, 5% of the adolescents who had ever had sexual intercourse reported having ever paid money or gift for sex (9% of males and 2% of females). Similarly, 4% of adolescents who had ever had sexual intercourse reported receiving money or gifts for sex (4% of males and a similar proportion of females; Figure 4).

Figure 4: Percent distribution of adolescents by experiences of transactional sex

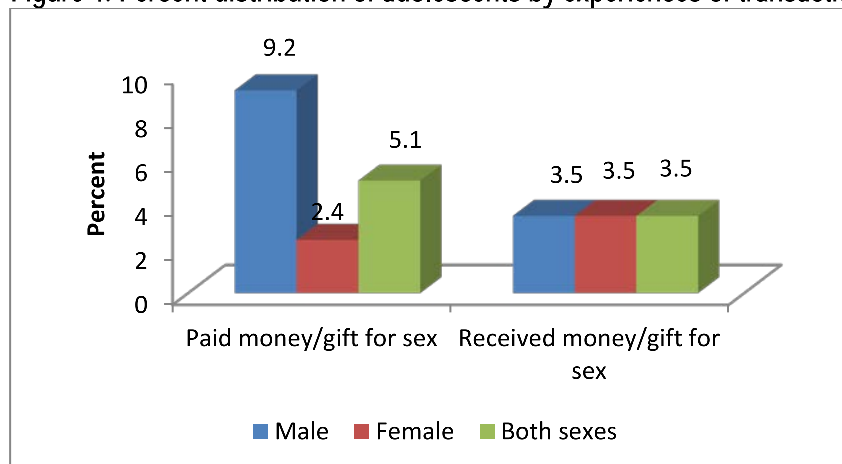


Table 7 shows the various reasons for delayed sexual intercourse. Adolescents who had indicated that they had never had sex were asked a series of questions. Almost nine out of ten adolescents indicated that they were not ready to have sex (91% of females and 87% of males). In addition, 88% of female adolescents and 82% of their male counterparts thought that sex before marriage is wrong. Eighty four percent of the females and 77% of the males also reported that they were afraid of getting pregnant or impregnating someone. Similar proportions (84% of females and 77% of males) were also afraid of contracting HIV and other STIs. Only 15% of the adolescents indicated that they were yet to have an opportunity to have sex.

Table 3: Percent distribution of adolescents who had never had sexual intercourse by reasons for delaying sex

Indicator	Male	Female	Both sexes
I don't feel ready to have sex	(N=362)	(N=491)	(N=853)
Applies	86.7	90.8	89.1
Not applicable	12.7	8.8	10.4
Don't know/not sure	0.6	0.4	0.5
I have not had the opportunity	(N=355)	(N=476)	(N=831)
Applies	16.9	13.9	15.2
Not applicable	79.7	84.0	82.2
Don't know/not sure	3.4	2.1	2.6
I think that sex before marriage is wrong	(N=362)	(N=488)	(N=850)
Applies	82.3	88.1	85.6
Not applicable	12.2	9.4	10.6
Don't know/not sure	5.5	2.5	3.8
I'm afraid of getting pregnant or impregnating a girl	(N=360)	(N=484)	(N=844)
Applies	76.9	83.9	80.9
Not applicable	19.2	14.7	16.6
Don't know/not sure	3.9	1.4	2.5
I'm afraid of getting HIV/AIDS and other STI's	(N=360)	(N=484)	(N=844)
Applies	78.5	83.7	81.5
Not applicable	17.6	14.2	15.7
Don't know/not sure	3.9	2.1	2.8

Contraceptive use by Adolescents

Among adolescents who had ever had sexual intercourse, less than half (48%) reported using a method to prevent pregnancy at first sex, with no significant difference between male and female respondents (46% and 49% respectively; Table 8). This suggests that more than half of adolescents were exposed to pregnancy at sexual debut. The most commonly used method to prevent pregnancy at first sexual intercourse was the condom (80% of males and 55% of females) followed by withdrawal (14% of males and 16% of females) and pills (6% of males reported that their partners used pills and 13% of females reported using pills). However, less than one-third of the adolescents (30%) who had sexual intercourse more than once reported always using a method to prevent pregnancy during subsequent sexual encounters (28% of males and 31% of females; Table 8). It is also worth noting that whereas a higher proportion of males than females reported that it was their decision to use a method to prevent pregnancy during subsequent sexual intercourse (48% compared to 18%), a higher proportion of females than males reported that it was joint decision (48% and 40% respectively; Table 8).

Table 4: Percent distribution of adolescents who had ever had sexual intercourse by contraceptive use

Indicators	Male (%)	Female (%)	Both sexes (%)
Used a method at first sexual intercourse?	46.0 (N=174)	48.6 (N=255)	47.6 (N=429)
Method used at first sexual intercourse	(N=80)	(N=124)	(N=204)
Condom	80.0	54.8	64.7
Pill	6.3	12.9	10.3
Injection	0.0	1.6	1.0
Withdrawal	13.8	16.1	15.2
Safe period	0.0	7.3	4.4
Emergency pill	0.0	6.5	3.9
Missing	0.0	0.8	0.5
Frequency of using a method during subsequent sexual intercourse[a]	(N=129)	(N=227)	(N=356)
Always	27.9	30.8	29.8
Sometimes	38.0	41.9	40.5
Never	34.1	27.3	29.5
Person who made decision to use a method during subsequent sexual intercourse[a]	(N=126)	(N=222)	(N=348)
Respondent	48.4	18.0	29.0
Partner	11.9	33.8	25.9
Joint decision	39.7	48.2	45.1
Used a method at recent sexual intercourse?	52.3 (N=174)	50.6 (N=255)	51.3 (N=429)
Method used at recent sexual intercourse	(N=91)	(N=128)	(N=219)
Condom	70.3	50.0	58.5
Pill	4.4	13.3	9.6
Injection	0.0	2.3	1.4
Withdrawal	20.9	15.6	17.8
Safe period	3.3	10.9	7.8
Emergency pill	0.0	4.7	2.7
Other	1.1	3.1	2.3

[a]Among respondents who had sexual intercourse more than once.

The results in Table 8 further show that slightly more than half of the adolescents who had ever had sexual intercourse (51%) reported using a method to prevent pregnancy at last sexual intercourse (52% of males and 51% of females). Similar to first sexual intercourse, the methods most commonly used to prevent pregnancy at recent sex were condoms (70% of males and 50% of females), withdrawal (21% of males and 16% females) and pills (4% of males reported that their partners used pills while 13% of females reported using pills).

The proportions of adolescent girls in the study that used a method to prevent pregnancy at first or recent sexual intercourse (49% and 51% respectively) are comparable to that of sexually active unmarried adolescent girls aged 15-19 years in the 2008 GDHS (53%; GSS et al. 2009). Similarly, the most commonly used methods among sexually active unmarried adolescent girls aged 15-19 years in the 2008 GDHS were condoms (23%), rhythm (14%), pill (10%) and withdrawal (4%; GSS et al. 2009).

Source of Contraceptive Methods

More than three-quarters of the adolescents who used a method (77%) reported that they obtained it from a pharmacy (71% of males and 79% of females) while 12% obtained the method from a shop (17% of males and 9% of females; Table 9).

Table 5: Percent distribution of adolescents who had ever had sexual intercourse by place of purchase of contraceptive

Indicator	Male (%)	Female (%)	Both sexes (%)
Main source of method	(N=77)	(N=140)	(N=217)
Shop	16.9	9.2	12.0
Pharmacy	71.4	79.3	76.5
Government clinic/health centre/hospital	2.6	3.6	3.2
Private doctor/nurse/clinic	0.0	0.7	0.5
Friend	5.2	2.1	3.2
Other	3.9	2.9	3.2
Don't know	0.0	2.1	1.4

Pregnancy Experiences and Outcomes among Adolescents

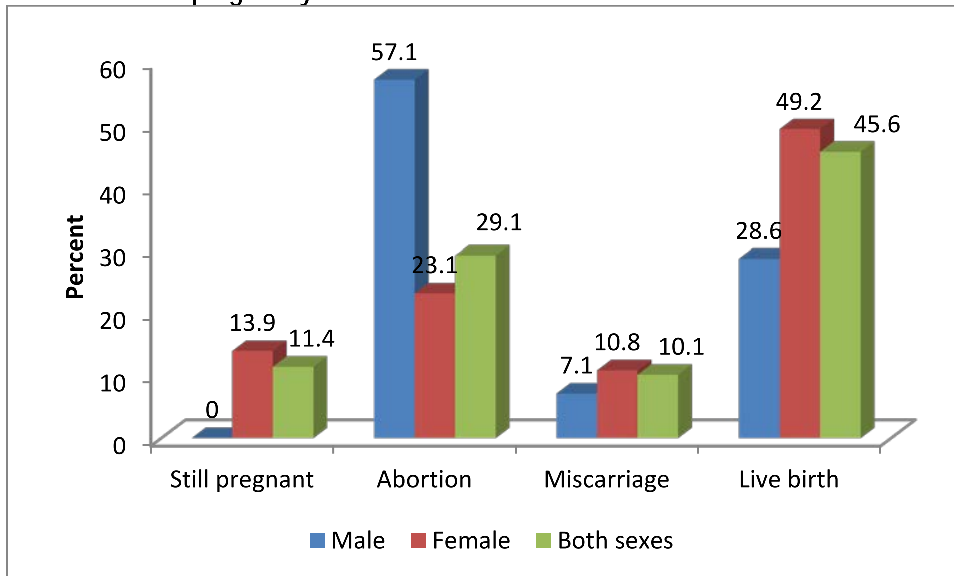
Among adolescents who had ever had sexual intercourse, 8% of the males reported having ever made a girl pregnant while 26% of the females reported having ever been pregnant. The proportion of sexually active adolescent girls in the study that had ever been pregnant was lower than that of a similar group of adolescents aged 15-19 years in the 2008 GDHS that had ever been pregnant (36%; GSS et al. 2009).

There were no significant variations in the proportions of adolescent males that had ever made a girl pregnant by background characteristics (Table 10). By contrast, the proportion of adolescent girls that had ever been pregnant was significantly higher in Brong Ahafo than in the Greater Accra region (31% and 20% respectively). It was also significantly higher among adolescent girls who were not attending compared with those who were attending school at the time of interview (34% and 14% respectively). This is consistent with the view in the literature that keeping girls in school positively influences their SRH outcomes.

Table 6: Percent distribution of adolescents who had ever been pregnant or made a girl pregnant by background characteristics		
Characteristics	Male (%)	Female (%)
Region	p=0.22	p<0.01
Greater Accra	7.2	19.5
Brong Ahafo	8.8	30.7
Age (years)		
13-15	0.0	27.8
16-17	1.9	14.1
18-19	12.0	29.5
Currently attending school	p=0.05	p<0.01
Yes	4.5	14.4
No	15.3	33.6
Religious affiliation		
None	16.7	20.0
Catholic	5.9	27.0
Protestant	10.0	17.5
Charismatic	10.4	20.3
Muslim	6.5	32.0
Other	0.0	25.0
Parental living arrangements		
Both parents live in household	7.3	16.9
One parent lives in household	8.8	25.9
No parent lives in household	6.1	30.7
No/don't know	12.5	33.3
Ever worked for pay		
Yes	11.8	33.8
No	3.7	21.7
Currently working for pay		
Yes	15.2	35.9
No	8.5	31.7
P-values are from Chi-square test of differences in the distribution of respondents who had ever been pregnant or made a girl pregnant by background characteristics among males and females.		

For the majority of adolescents (76%) who had ever been pregnant or made a girl pregnant, the most recent pregnancy was not wanted (86% of males and 74% of females). In addition, 57% of the males who had ever made a girl pregnant and 23% of the girls who had ever been pregnant reported that the last pregnancy resulted in abortion (Figure 5).

Figure 5: Percent distribution of adolescents who had ever been pregnant or made a girl pregnant by outcome of last pregnancy



ATTITUDES AND PRACTICES OF PARENTS/GUARDIANS REGARDING ASRH

Communication about Sex

Fifty seven percent of the guardians reported that they set rules to control what their adolescent children watched or read. About 31% asked the adolescents to watch educational programs, close to a quarter (24%) asked their adolescent child not to watch movies with sex scenes, and about 3% asked their wards not to watch television.

Thirty nine percent of the guardians interviewed indicated that they had never discussed sexual issues with their adolescent child (Table 11). Among those who reported ever discussing these issues, 87% said they were comfortable doing that. The topics frequently discussed included teenage pregnancy (52%) and STI/HIV/AIDS (16%). When asked about the topics they would like to get help with, 66% mentioned family planning/contraceptive use/STI and HIV/AIDS, 5% cited abortion and 9% indicated marriage.

Table 7: Percent distribution of guardians by the extent of communication on sexual and reproductive health issues with their adolescent children			
Indicator	GAR (%) (N=358)	BAR (%) (N=268)	Total (%) (N=626)
Ever discussed sexual matters with adolescent			
Yes	62.6	59.0	61.0
No	37.4	41.0	39.0
Feel comfortable discussing sexual matters?	(N=223)	(N=158)	(N=381)
Yes	89.7	82.3	86.6
No	10.3	17.7	13.4
Important SRH issues discussed			
Teenage pregnancy	55.0	48.7	52.2
STI/HIV-AIDS	15.4	12.3	14.0
Boy/girl relationship	3.5	5.5	4.4
Abortion	2.0	4.5	3.1
Alcoholism/Smoking	2.7	3.2	2.9
Use of contraception	2.4	4.1	3.1
Remaining a virgin until marriage	0.0	1.1	0.5
Personal hygiene	9.7	11.6	10.5
Other	9.3	9.1	9.2
Help with information on topics to discuss with adolescent			
Marriage	4.5	11.8	8.7
Family planning/contraceptive use/STI/HIV	76.4	58.0	65.8
Sexual relationship	1.1	2.5	1.9
Abortion	3.4	6.7	5.3
Personal hygiene	3.4	6.7	5.3
Education on alcohol	0.0	2.5	1.4
Other	11.2	11.7	11.6
GAR: Greater Accra Region; BAR: Brong Ahafo Region.			

Approval of Adolescent SRH Information and Services

Although the majority (95%) of parents/guardians did not know of organizations which provide reproductive health services to adolescents, nine out of ten (91%) were willing to allow their adolescent children to receive such services (Table 12). Similarly, 91% would allow their wards to seek services from health facilities although only 20% had knowledge of such facilities (which provided ASRH services). A high proportion (97%) of guardians wanted reproductive health information to be provided in schools. Less than 10% disapproved of the provision of reproductive health services to adolescents.

Table 8: Percent distribution of guardians by knowledge and attitudes towards reproductive health services for adolescents			
Indicator	GAR (%) (N=358)	BAR (%) (N=268)	Total (%) (N=626)
Aware of youth organizations that provide RH information and services to youth			
Yes	4.5	6.7	5.4
No	95.5	93.3	94.6
Would allow adolescent child to receive RH information and services			
Yes	90.8	91.0	90.9
No	9.2	9.0	9.1
Aware of health facility which provides RH services to adolescents			
Yes	15.6	25.7	20.0
No	84.4	74.3	80.0
Would allow adolescent child to seek RH services from health facility			
Yes	90.2	91.4	90.7
No	9.8	8.6	9.3
RH information should be provided in school			
Yes	97.5	95.9	96.8
No	2.5	4.1	3.2
GAR: Greater Accra Region; BAR: Brong Ahafo Region; RH: Reproductive health.			

More than half (54%) of the parents/guardians felt that contraceptives should be offered to adolescents in the community (Table 13). Although contraceptives are available in the community, it is often not accessible to the adolescents. Among other reasons, 28% of those against the provision of contraception to adolescents believed that it was tantamount to teaching them to have sex, they were too young for family planning (16%), and that it would encourage prostitution and bad behaviour (23%).

Table 9: Percent distribution of parents/guardians by perceptions on the provision of contraceptives to adolescents			
Characteristics	GAR (%) (N=358)	BAR (%) (N=268)	Total (%) (N=626)
Contraceptives should be made available to youth in community			
Yes	48.0	61.9	54.0
No	52.0	38.1	46.0
Reasons why contraceptives should not be available to youth in community	(N=193)	(N=106)	(N=299)
It is like teaching them to have sex	26.9	30.2	28.1
Sex before marriage is not good	0.0	0.9	0.3
Use of contraceptives has health effects	14.5	13.2	14.0
Education is better	1.0	2.8	1.7
Don't need these services now	1.6	6.6	3.3
It will promote bad behaviour/encourage prostitution	20.2	27.3	22.7
Abstinence is the best	3.1	3.8	3.3
Too young for family planning	20.2	7.5	15.7
It is not good for them	2.1	3.8	2.7
Other	10.4	3.8	8.0
GAR: Greater Accra Region; BAR: Brong Ahafo Region.			

Attitudes and Perceptions of Community Members towards ASRH

Perceptions about Adolescent Sexuality

Community opinion leaders had the view that most adolescents in their communities are sexually active as evidenced by the increasing numbers of teenage pregnancies and adolescent commercial sex workers. Inadequate sensitization/education on SRH, high school drop-out rates, inadequate parental control, and explicit sexual information on the social media were reported to contribute to early age of sexual activity among adolescents as exemplified by the following quotes:

> *"Teenage pregnancy is increasing in the community. The adolescents are having sex both days and nights…Majority in the ages 13, 14 to 19 are getting pregnant and they take drugs to abort the pregnancy which ends up in death or destruction of their womb. Teenage pregnancy is happening in this community a lot… Some girls give birth to about two without knowing the baby's father…. These babies are left in the care of the adolescents' parents… These babies also grow and start behaving like their adolescent parents and these social vices continue." FGD - Atebubu*

> *"In almost every home you find a pregnant adolescent in this community… I saw a 14-year old girl who is pregnant so I asked her how it happened … even though initially she didn't want to do it, because she also wanted her needs to be met, she finally gave in and took a boyfriend and due to her inexperience, she became pregnant." FGD - Sunyani*

> *"They are sexually active… because most of the children become pregnant in their adolescent age. So when you go to the polyclinic you see the under-aged children attending antenatal care… the ages between 14 and 18, some have 2 children, and some of them are even into commercial sex..." FGD - Ashiaman*

> *"Majority of the adolescents in this community aged 14-19 years do not go to school because of boy/girl relationship and they soon become pregnant…majority of parents have no time for their children …When you visit the hospitals you will realize that those pregnant are mostly between 14 and 19 years old. Majority of school dropouts are of this age group…if you observe these children, you can tell they are sexually active. Also due to abundance of pornographic materials, the adolescents practice what they watch and then become pregnant as a result..." FGD – Atebubu*

Attitudes towards Adolescent SRH Services

Most community opinion leaders approved the use of contraceptives by adolescents. This is mainly to avoid teenage pregnancy (which they felt was quite prevalent in the community) and the risk of contracting sexually transmitted infections. The use of contraceptives was also seen as a way of avoiding abortion which comes with its own risks as well as socio-economic deprivation associated with early and unwanted pregnancies. The following quotes provide insights into the perceptions of community members regarding the use of contraceptives by adolescents:

> *"…condoms are everywhere so the adolescents buy them. We feel okay because it prevents unwanted pregnancy…most of the female adolescents go to the drug store to buy pills and other tablets to prevent pregnancy…They buy Secure…Some buy a black powder like gunpowder for family planning…Others also insert something under their armpit." Adolescent FGD - Atebubu*

"They are using it…I think it is better for them to do the family planning than get pregnant and go for abortion. It is more shameful to be pregnant and go for an abortion than to use family planning to prevent pregnancy…" FGD - Nima

"They know about it and they go for it but the fact is that some of the men don't like using any of these protectors… It is true that our religion frowns upon it, but rather than having to do it unprotected and come home with an unwanted pregnancy or be at risk of sexually transmitted infections we will take it like that…They say prevention is better than cure, so it is better for them to prevent than to become pregnant and attempt to abort which can cost them their lives…" FGD - Sunyani

"…Teachers do not teach details about reproductive health, they only teach about effect of sexually transmitted diseases… the adolescents should be given these services to protect them from unwanted pregnancy….the information and services if given to the adolescents is good because it will broaden their knowledge and prevent them from engaging in activities that will destroy their future…." FGD - Atebubu

Availability of Adolescent SRH Information and Services

Community members identified various sources of SRH information and services for adolescents. These included the electronic media, books, schools and fellow adolescents as shown by the following quotes:

"They have so many sources of information; friends, TV and internet… books… certain music or songs… adverts from the TV… the radio. I think those who are into that area should do education on the radio for people to learn…" FGD - Sunyani

"The community's understanding of contraceptives also counts because the moment you talk about family planning, it is like you are showing the girls the way to prostitution…That is the general understanding of some people, though not all, most of the people when you talk about family planning they say oh! You want to spoil this girl… Formerly, you couldn't mention condom in public, but now I think that thing is going away little by little… because when you come to the 'zongo' communities (slums and shanty towns, characterised by endemic poverty and hence susceptible to violent crime and gangsterism) the only place the adolescent gets sex education is in school, so when there is no sex education in school it means the person would not have any education about sex…" FGD - Nima

"Some of these adolescents have seen the problems their colleagues have gone through for example teenage pregnancy and they decide to go for advice and help on reproductive health issues…For example an adolescent child who saw a friend/colleague friend who had never become pregnant even though she was sleeping around (having sex with many partners) became interested and enquired (why she never got pregnant). The friend narrated to her that it was family planning (implant) inserted by the mother. She also went to the hospital for the commodity so that she can complete her senior secondary school education...." FGD - Atebubu

Recommendations for Improving Adolescent SRH

Community members recommended various strategies for improving sexual and reproductive health information and services for adolescents. These included appropriate leadership role by the Ghana Health Services; involvement of all stakeholders including government, traditional and church leaders; engagement of community members in the mobilization of resources; ensuring that information and

services are available and accessible to the adolescents; conducting information, education and communication campaigns through various channels; encouraging adolescent social networks on SRH issues; and formulating legislation to against individuals who make adolescent girls pregnant. The following quotes highlight the major recommendations from community leaders.

> *"We seem to be putting all the blame on the adolescent girls but I think that the boys also need education… I think that parents need more education. It is not like they don't want to teach their children but most of them don't know so may be the community can organize and bring in resource persons to educate the parents…I think that our religious leaders must also educate on these issues because they must preach and educate on SRH issues even before we get married…what children need is proper counselling and advice." FGD - Sunyani*
>
> *"It should be the Ghana Health Service because they are paid to provide RH information and services and then maybe the social welfare and in collaboration with the district assembly…this is an issue of bringing on board all stakeholders; the chiefs, the traditional leaders, the whole lot with all the departments that are concerned, so that we can achieve success, but when some leaders like chiefs and the other heads are eliminated, then target might not be achieved. It must be a collaborative effort." FGD - Ashiaman*
>
> *"I think we have to step-up the dissemination of information, sensitization of all groups and then also the female condoms should also be made available to all females and groups and when the non-governmental organizations (NGOs) go to educate them. they either reduce the prices or they give it to them free so that the adolescents keep the condoms…all stakeholders must get involved, particularly the churches, Islamic Religion, the traditional authorities, youth groups…. let's visit people in their homes, when we are educating them, it will go down… then let's start to do something that will get everybody involved…it looks as if bulk of the money should go to preventive measures." FGD - Ashiaman*
>
> *"We should organize workshops for our Imams and Mallams to accept the fact that we must educate adolescents on how they can protect themselves…on Friday they all go to the mosques and so if the same education reaches them through their leaders it will go a long way to help… We shouldn't forget about the media… when the adolescents go to the drugstores the dispensers must try and find out and explain things to them properly… also advertise for people to know that it is easy for people to walk in and access services… So I think the help of posters would also do." FGD - Nima*
>
> *"…Teachers do not teach details about RH, they only teach about effect, STIs… the adolescent should be given these services to protect them from unwanted pregnancy….the information and services if given the adolescent is good because it will broaden their knowledge and prevent them from engaging in activities that will destroy their future…." FGD - Atebubu*
>
> *"School going age adolescents should form groups and clubs to talk about SRH education…We the unit committee leaders should group the adolescents in the community and educate them on ASRH issues… Parents should establish good communication links with the children… education on FP from teachers and religious groups should be encouraged. The district assembly should make by laws against people who impregnate adolescents… Stringent measures should be put in place to punish individuals who impregnate them…We can have clubs, groups and associations and talk to these adolescents." FGD - Atebubu*

Discussion

This study provides an overview of the sexual and reproductive health knowledge, attitudes and behaviours of adolescents living in urban slums in Ghana, as well as the attitudes, perceptions and practices of their parents/guardians and community members regarding the issue. One major finding is that, consistent with existing literature on adolescents in the general population in Ghana (GSS et al., 2009), awareness about contraceptives is universal among adolescents living in urban slums. However, use of contraceptives among those who are sexually active is low. This is an indication that the majority of adolescents living in slums—just like their counterparts in the general population—exposes themselves to the risk of unintended pregnancy and sexually transmitted infections; the vast majority of adolescent girls who had ever been pregnant reported that the most recent pregnancy was unintended. The situation of adolescents living in the slums is further exacerbated by the fact that such settings lack basic amenities and services (UN-HABITAT, 2003). The challenge for adolescent sexual and reproductive health programs is, therefore, to devise strategies for reaching adolescents living in the slums with appropriate information and services against the backdrop of limited resources available in the community.

The second major finding is that schools were not only the major but also the preferred source of specific SRH information such as reproduction and puberty among adolescents living in the slums. The majority of parents/guardians also indicated that SRH information should be provided in schools. Most of the sexually active adolescent girls who used contraceptives obtained the methods from a private pharmacy. However, these sources of SRH information and services have advantages and disadvantages. For instance, the literature suggests that intensive and prolonged curriculum-based sexual education show promising results on preventing adverse SRH outcomes among adolescents (United Nations Educational, Scientific and Cultural Organization [UNESCO], 2009). A key challenge, however, is that school teachers may not be well-equipped to provide appropriate SRH information to adolescents. Private pharmacies, on the other hand, offer privacy and quick service delivery that appeal to most adolescents. However, providers in private pharmacies offer minimal or no information on the exact nature, known side effects or benefits of the methods (Valentine et al., 2001). It is also worth noting that community members in the study felt that addressing adolescent SRH required the involvement of all stakeholders including the government, community leaders, parents/guardians, and the adolescents themselves. Thus, programs that aim to promote the provision of SRH information and services to adolescents living in the slums need to take into account not only the technical competence of the providers but also the support from all the relevant stakeholders.

Another finding was that the majority of parents/guardians as well as community members in the slums supported the need for adolescents to access SRH information and services despite the fact that the provision of the services to adolescents has remained contentious in many parts of sub-Saharan Africa (Wood and Jewkes, 2006). This was largely driven by the need to reduce unintended pregnancies among adolescents in the community, which were deemed to be high. Unintended pregnancies were also viewed as exposing the adolescents to health risks as many of them resulted in unsafe abortion. In addition, there was a general feeling that adolescents are exposed to the risk of sexually transmitted infections. Some of the adolescents also reported engaging in transactional sex and experiencing sexual coercion. Coerced sex has been associated with a range of negative health and reproductive

outcomes among women (Koenig et al., 2004). At the 1994 International Conference on Population and Development in Cairo and at the 1995 Fourth World Conference on Women in Beijing, discourse on sexual and reproductive rights characterized sexual coercion as a symptom of the limited life options of girls and young women (Andersson et al., 2012). The study finding is therefore consistent with existing literature and international instruments that recognise the importance of providing SRH information and services for reducing the poor outcomes among adolescents. In addition, the positive attitudes of parents/guardians and community members in the study towards the provision of SRH information and services to adolescents present an opportunity to improve the delivery of the services in the slums as it minimizes the level of opposition to the programs that might be expected from the gate keepers.

The study further found that although the majority of parents/guardians reported ever discussing sexual matters with their adolescent children, most felt that they needed to be equipped with appropriate information to effectively accomplish that role. Conversely, the majority of adolescents reported that it was easy for them to discuss important things with their parents, especially mothers. Parent-based approaches to addressing ASRH could be an effective strategy in the repertoire of programs to delay sexual intercourse and reduce teenage pregnancy and STIs (Hindin and Fatusi, 2009; Wamoyi et al., 2010). However, simply encouraging parents to talk to their children about sexual risk-taking, without providing specific guidance about the dynamics of adolescent sexuality, is probably of limited value (Jaccard et al., 2002). As demonstrated by the Marín study (Lieberman, 2006), alerting parents to the relationship between early nonsexual relationships and subsequent early initiation of sexual intercourse, the importance of supervision and monitoring even in seemingly "innocent" situations and the effect of early menarche are good examples of the specific guidance that they (parents) need.

Recommendations for Programmatic Actions

Strengthen adolescent sexual and reproductive health programmes: The findings of the study suggest the need to intensify efforts to inform and educate adolescents living in the slums about responsible and healthy attitudes towards sexuality, the need to delay the onset of sexual activity and to decrease risky sexual practices. Adolescents should be targeted with the appropriate information on sexuality when they are still fairly young, and especially before puberty. Similarly, efforts should be intensified to increase access to a wider mix of contraceptives for sexually active adolescents for the prevention of STI/HIV/AIDS and unwanted pregnancy. Such programmes need to take into account the limited access to services and resources among urban slum dwellers.

Strengthen school-based sex education: School-based sex education and other reproductive health programmes as currently being implemented in Ghana are based on the abstinence-only approach which emphasises the importance of postponing sexual intercourse until marriage. As a deterrent to usage, contraceptive information provided sometimes focuses primarily on the failure rates of the methods. This differs markedly from a comprehensive sexuality education programme which often focuses on the delay of sexual activity and protection for those who are sexually active including training in sexual negotiation, communication skills and information about obtaining contraceptives and reproductive health services. In particular, interventions that target adolescents may be improved by the discussion of sexual behaviours that usually precede vaginal intercourse. Given the preference for schools as sources of SRH information among participants in the study, the Ministry of Education /

Ghana Education Service (MoE/GES) should evaluate the successes and challenges of the School Health Education Program (SHEP). This should inform the strengthening of the program through the incorporation of sexual education appropriate for each educational level, ensuring that information is communicated by individuals with appropriate training that takes into account the special needs at different levels, and developing appropriate curriculum methodologies and materials that recognize gender differences in SRH knowledge, attitudes and practices.

Involve and empower parents and community members: The findings show the need to involve all stakeholders including parents/guardians and community leaders in addressing adolescent SRH needs. Programs and interventions should be designed to equip parents/guardians and community leaders with the appropriate information and skills for address adolescent SRH needs. This could be achieved through community workshops organized in collaboration with different players including religious institutions, non-governmental institutions and health workers to empower communities on adolescent sexuality and contraception. This will enhance community participation and address cultural barriers and inhibitions to the optimum realization of ASRH.

Address sexual coercion: Interventions to address sexual coercion and violence should be an integral component of current reproductive health service programs since coercion and violence present an increased risk of unwanted pregnancies or HIV infection. Interventions should empower adolescents to know what coercion is and signs of violence as well as where to seek services. Program models designed to reduce risky sexual activity among adolescents should not only offer information but also promote public acknowledgment of the prevalence of sexual coercion and of the gender inequality that fosters it.

Appendix

Figure A1: Map of Ghana Showing Study Sites

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