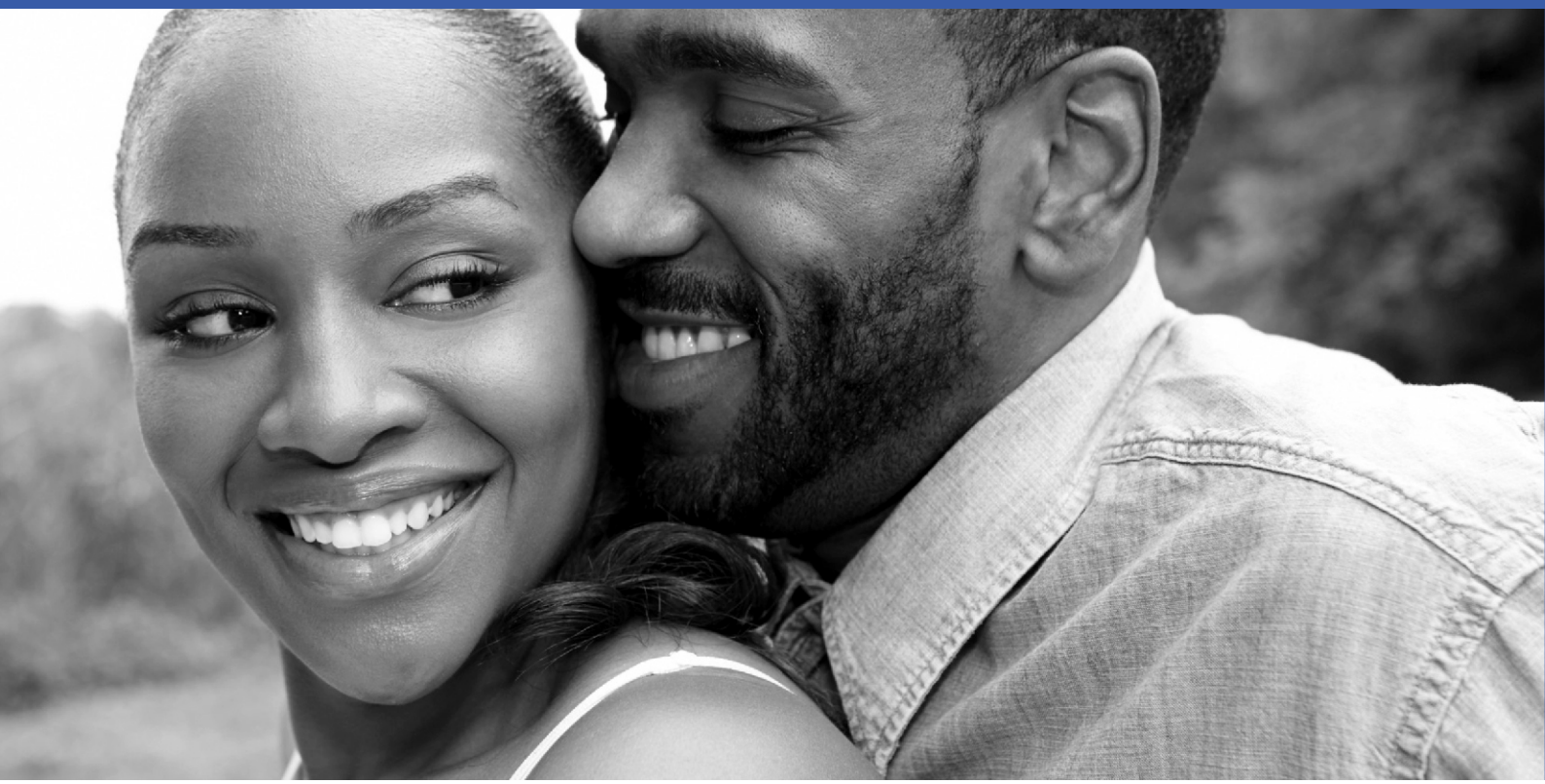
Male Involvement:



Exploring the Knowledge-action Gap in Sexual Reproductive, Gender Equality, and Health Service Utilization among Fathers and Expectant Fathers in Kgatleng District and Letlakeng sub-District, Botswana

2016

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...male involvement, participation, and engagement in sexual reproductive health programs can significantly improve the health outcomes of children, women, and men themselves.

Stepping Stones International (SSI) is a non-governmental, non-profit organization that unlocks the potential of orphaned and vulnerable adolescents (aged 12–18+) to a world of opportunities. SSI is the first program of its kind in Botswana focused exclusively on adolescent development. SSI uses a holistic approach by nurturing the mental, physical, and social well-being of our youth to create realizable opportunities for them to become self-sufficient. Through the leadership program, our youth gain life skills, leadership, entrepreneurship and community mobilization competencies to assist them in the attainment of post-secondary education or full-time employment. Our team possesses knowledge and expertise in the fields of adolescent care and support services. Visit www.steppingstonesintl.org

MenCare Fathers' Groups at Stepping Stones International is a male involvement, gender-based violence reduction, and gender equality promotion initiative under the United Nations Population Fund and the Stephen Lewis Foundation support.
The ideas expressed in this report are those of the authors and do not necessarily represent the strategic direction and ideas of UNFPA, the Stephen Lewis Foundation, or the management of Stepping Stones International. The authors believe that the results are essential and may be translated to inform male involvement programs.

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PREFACE

There is a growing recognition that male involvement, participation, and engagement in sexual reproductive health programs can significantly improve the health outcomes of children, women, and men themselves. There is, therefore, an urgent need to develop data-driven programs that may be used to identify high impact, sustainable, and context-relevant interventions for men. I am pleased to share with you baseline study results from the SSI MenCare Project, which assessed fathers' knowledge about sexual reproductive health, the rate of involvement in sexual reproductive health interventions, and their attitudes towards gender-based violence and gender equality.

The study also examined whether the acquisition of SRH knowledge among this cohort of men in Kgatleng District and Letlakeng Sub-districts translated to the use of available SRH services. This cross-sectional study provides important information about the current state of the male involvement program and men's utilization of sexual and reproductive health services in the study areas. This information is essential for developing data-driven male involvement programs aimed at contributing to the Government of Botswana's and development partners' efforts to improving sexual and reproductive health of both men and women, and the welfare of their children.

SSI strongly believes that the translation of program-based data to inform programming coupled with the continuous synthesis of data during implementation create a platform for identifying high impact interventions necessary for improving health service delivery science. Prompt use of data to develop evidence-based interventions is not only a smart approach for using scarce resources but also a management and accountability responsibility for all of us in development work.

I sincerely hope the information presented in this report, despite its design limitations, may motivate the Government of Botswana and the donor community to invest in participatory community-based programs such as the Fathers' Groups model for incorporating SRH and male involvement as an educational platform to improve health outcomes for men, women, and children.

Lisa Jamu, M.A. (Intl Dev), B.A.
Managing Director and Founder,
Stepping Stones International

ACRONYMS

AIDS	Acquired Immunodeficiency Syndrome
FP	Family Planning
GEM	Gender Equality Men
GoB	Government of Botswana
HIV	Human Immunodeficiency Virus
ICPD	International Conference on Population Development
IQR	Interquartile Range
SADC	Southern African Development Community
SAfAIDS	Southern Africa AIDS Information Dissemination Service
SRH	Sexual Reproductive Health
SPSS	Statistical Package for Social Sciences
SSI	Stepping Stones International
TB	Tuberculosis
UNAIDS	United Nations Program on HIV and AIDS
UNESCO	United Nations Educational, Cultural, and Scientific Organization
UNFPA	United National Population Fund
WHO	World Health organization

ACKNOWLEDGEMENT

This report is a product of contributions from many people. The authors wish to express profound gratitude to the Stepping Stones International (SSI) management for the support in making this report a reality. Authors wish to thank all fathers and expecting fathers in the study areas who took time and consented to take part in this study. The information provided in this report is essential to inform future male involvement programs in the study areas. The authors are grateful to UNFPA and the Stephen Lewis Foundation for the financial support to implement the MenCare Fathers Group Project during which data presented in this report were collected.

Special thanks go to all heads of health departments and health service facilities in Kgatleng District and Letlakeng Sub-districts who supported the recruitment of fathers in the MenCare Project. The research team wishes to acknowledge the support of SSI volunteers: Stephen Sirna (Georgetown Medical School, USA) took part in the design and piloting of the data collection questionnaire. Brianna Krejci (Penn State, USA), Travis Ambing (University of Ottawa, Canada), and Alex Mackey (University of Ottawa, Canada) were part of the team that reviewed and piloted the questionnaire. Finally, the authors are grateful to the following staff and SSI Leadership youth participants:

EXECUTIVE SUMMARY

INTRODUCTION

Evidence suggests that involving fathers in sexual reproductive health has long-term health benefits for their spouses/partners, their children, and themselves. However, in many sub-Saharan African countries, a few fathers are actively involved in issues related to reproductive health and most do not use sexual reproductive health services even when they have access to the services. This study examined fathers' and expecting fathers' knowledge and use of the available sexual reproductive services among fathers and expecting fathers in selected villages in Kgatleng District and Letlakeng sub-District. The study also investigated the effects of sexual reproductive knowledge on health-seeking behaviors, the fathers'/expecting fathers' attitudes towards gender equality and gender-based violence.

METHODS AND PROCEDURE

Research Design

The baseline research was a cross-sectional study, which collected a snapshot of data on respondents' knowledge on sexual reproductive health, the use of reproductive health services including HIV testing and counseling, male circumcision, family planning, and sexually transmitted infections prevention and treatment services. The study also examined respondents' attitudes towards gender-based violence and gender equality.

Sample Population

The sample population was men (fathers and expecting fathers) who had been recruited in the MenCare Project at Stepping Stones International (SSI). MenCare is a global campaign that promotes the equitable, responsive, and non-violent involvement of fathers/expecting fathers as caregivers in promoting children's and women's well-being. Fathers and expecting fathers attend participatory community-based sessions in which they discuss involvement and active participation in the lives of their children as well as wives or partners. Men who had children aged five years or younger and men expecting to become fathers for the first time were eligible to take part in the study. The sample included teachers, healthcare workers, court attendants, technicians/mechanics, security guards, garden boys, head boys, bricklayers, and laborers in construction companies.

Study Setting

The setting for the study was selected villages of Mochudi and Artisia in Kgatleng District and Letlhakeng and Ditshegwane in Kweneng West District. Eligible men were recruited using multi-pronged community mobilization approaches from health facilities, government department offices, schools, community football social tournaments, and through weekly radio programs. The project also recruited eligible men using the door-to-door campaign in the project districts.

Sample Size Determination

The study asked all recruited fathers and expecting fathers to take part in the study at baseline. The required sample at baseline was determined to ensure adequate sample size for the end of the project sample. The MenCare Project planned to examine effects of the Fathers' Groups on mobilizing men to became active participants in sexual reproductive health and promote health seeking behaviors, improve on gender equality, and reduce gender-based violence. It was determined that the study required a random sample of 285 Fathers' Group participants selected from those recruited. The study determined that a sample of about 340 men or more could be ideal to draw a sample of 285 at the end line.

Data Collection and Instrumentation

Baseline data were collected using a standardized face-to-face questionnaire. The questionnaire collected information on respondents' demographic characteristics, self-reported sexual histories, knowledge on sexual reproductive health, health seeking behaviors, attitudes towards gender equality, and gender-based violence. The questionnaire was translated into Setswana to facilitate comprehension and promote information consistency. The questionnaire was piloted in non-study villages in Kgatleng District and modified before collecting the research data. Trained research assistants collected data under the supervision of the Project Coordinator.

Data Management and Processing

Data were entered, managed, and processed using International Business Machine (IBM) Statistical Package for Social Sciences (SPSS) Version 22 for Windows (Armonk, New York, USA). Data were double entered, cleaned, and edited to minimize data entry errors. As part of data cleaning, the two data files were merged to identify transportation discrepancies between the two data clerks. Original paper questionnaires were checked to correct data entry errors. The study sampled five percent of completed questionnaires and compared with entered data. The study also computed frequency tables and carried out cross tabulations to identify errors and incomplete questionnaires.

Data processing also included missing values analysis. The study had planned to address missing data using complete case analysis for records missing more than 20 percent of values and where appropriate multiple imputation for records missing less than 20 percent values. Missing data analysis revealed that none of the records at baseline missed more than 20 percent of the data values. Consequently, the study did not perform complete analysis (case deletion). The missing values per record ranged from 1.0 percent to 6.6 percent. The study created two new datasets, one of which was imputed. The comparative analysis found that the results from the imputed and non-imputed datasets did not differ significantly. The data analysis for this study was performed based on the non-imputed dataset.

Data Analysis Strategy

The study at baseline included all eligible men who consented to take part in the study; as such the data analysis strategy was based on non-parametric methods. The analysis was largely descriptive, which constituted summation of data features aimed at understanding the distribution of each variable and the nature and strength of the relationships among variables. The descriptive analysis involved organizing and displaying in frequency tables in proportions (percentages) and graphs. The study calculated 95% confidence intervals for proportions using the Association of Public Health Observatories analytical tools for public health (2014).

One of the main objectives of the study at baseline was to examine whether the acquisition of sexual reproductive health knowledge had effective on health seeking behaviors including HIV testing and counseling, male circumcision, family planning, involvement in antenatal and postnatal care, and positive attitudes towards gender equality and prevention of gender-based violence. Because the sampling distribution at baseline was not known, the study used the bootstrapping method, a computation sampling technique where original data are resampled with replacement. The method is recommended when the parametric assumptions of a sample population are not met either due to small sample size or unknown sampling distribution. Bootstrapping estimates the population distribution using the information from the number of re-sampled data. The basic assumption is that when the sample is a good approximation of the population under study, bootstrapping will provide a good approximation of the sample distribution. The study used 1000 bootstrapping samples to compute a logistic regression model, thus allowing the study to make inferences.

Ethical and Legal Consideration

The study received ethical approval and clearance from the Health Research Development Committee Institutional Review Boards.

Demographic Profile

The survey was composed of 320 men, which included 94.4 percent fathers 5.6 percent expecting fathers. The mean number of children per father was $M_{\text{number of children}} = 1.8$ (± 1.2, 95% CI: 1.6, 1.9) ranging 1 to 9 children. The mean age of the respondents was $M_{\text{age}} = 31.9$ years, with the youngest aged 17 years and the oldest 62 years. Expecting fathers were significantly younger than fathers, M expecting fathers = 26.4 (±8.0, 95% 24.9, 28.0) vs. $M_{\text{father}} = 32.1$ (±8.0, 95% CI: 31.8, 32.5).

Seventy percent of the respondents had secondary education, 15 percent had primary school education, 8 percent had tertiary education and 7 percent had never received formal education. At the time of the interviews, 68.1 percent (95% CI: 62.8, 73.0) of the fathers/expecting fathers were not living with their partners. About half of the respondents (52 percent 95% CI: 46.7, 57.6) had full-time employment working as civil servants (teachers, healthcare workers, and court attendants), technicians/mechanics, security guards, garden boys, head boys, bricklayers, and laborers in construction work. Respondents who did not have full-time employment at the time of the survey had part-time work or managed small business ventures for economic survival. About 79.4 percent of the respondents earned a monthly wage of ≤2,500BWP (US$227.44).

Sexual Histories: Lifetime Sexual Partners

Half of the respondents (52.0 percent) reported ≤five lifetime sexual partners while 48.0 percent reported ≥six lifetime sexual partners. The number of lifetime sexual partners varied with age. Respondents in the 30–44 age group reported more lifetime sexual partners than those in the 15–29 age group. The study found that 12.5% (n = 40) of the fathers/expecting fathers had two or more sexual partners three months before the study.

Knowledge about Sexual Reproductive Health

The study asked respondents if they knew the meaning of sexual reproductive health (SRH) and to give examples of SRH services. Respondents were also asked if they had access to SRH services, where they would get the services, and the number of times they had used health services in the last 12 months. Results show that 55 percent of the respondents knew what SRH meant and were able to cite accurate examples of SRH related services. The most commonly cited example of SRH included HIV testing and counseling, family planning, maternal and child health services, and safe male circumcision. The majority of the respondents in this study said they use health services when they are sick. The mean number of times the respondents had received health services 12 months before the study was M = 3.1 (±3.2, 95% CI: 2.7, 3.4).
Utilization of Sexual Reproductive Health Services

HIV Testing and Counseling

Data suggest nine in every ten men who took part in this study had tested for HIV. Most of the men who tested for HIV sought services within the last 12 months as of December 2015, and the remainder had tested more than 12 months earlier as of December 2015. The overall average length of time since the respondents had tested for HIV in this group was M =1.35 years (±2.11, 95% CI: 1.12, 1.62). The average length of time since fathers tested (as of December 2015) was significantly different from the time expecting fathers tested (1.28 ± 2.04, 95% CI: 1.03, 1.54 vs. 2.83 ±1.64, 95% CI: 1.64, 4.39), F (1, 298) = 9.12, p=0.003. The primary reasons for testing included knowing one's HIV status, partner request, the respondent had been sick, and unfaithfulness to the partner. Most respondents who had not tested cited fear of knowing their status as the primary reason for not getting HIV testing.

Results suggest that respondents who cited 'no need to test' in this study were less likely to seek HIV testing services in the next three months while those who cited fear of knowing their HIV status were more likely to seek HIV testing in the next three months. The measure of association between reasons for choosing not to test for HIV and the likelihood to test in the future was significant $\chi^2(5) = 299.0, p < 0.001, \lambda = .55, p < 0.001$. Results also show that that 78 percent (95% CI: 73.4, 82.2) of the respondents knew the HIV status of their spouse(s)/partner(s).

Male Circumcision

About 36.3% (95% CI: 31.2, 41.7) of the respondents had been circumcised prior to the survey. Most of the respondents (84.5 percent, n = 98) had been circumcised in healthcare settings by a professional healthcare worker while 15.5 percent were circumcised during 'Bogwera', an initiation ceremony practiced in some cultures in Botswana. The main reasons for seeking circumcision included preventing HIV transmission, for hygienic reasons, and because partner asked them. All men who received circumcision in health facilities were satisfied with the services.

The main reasons for most men who had not been circumcised included fear of pain, lack of time off from work, need for more information, embarrassment, and cultural/health/religious reasons. Men who cited health reasons were told they could not circumcise because they were sick. Results suggest that men who cited lack of time off from work, distance to the nearest clinic, and embarrassment were more likely to seek circumcision in the future if other individual concerns were met. Respondents who cited embarrassment as the main reason for not choosing circumcision were less likely to seek circumcision services if the service provider was a female. Results suggest that 66.7 percent of the respondents would seek circumcision services regardless of whether the provider was a female or male. However, 33.3 percent would prefer male service providers to females. Men who cited culture, religion, and health as the main reasons for not choosing circumcision were less likely to seek circumcision in the future. Descriptive measures of association and strength between reasons for choosing not to undergo circumcision and the likelihood to circumcise in the future (measured on a five point Likert scale) was significant ;$\chi^2(5) = 299.0, p < 0.001, \lambda = .55, p < 0.001$

Family Planning and Involvement in Sexual Reproductive Health

About 43.1 percent (95 CI: 37.5, 48.4) of the respondents had planned the latest/current partner pregnancy. The study found that 19.7 percent of the respondents had accompanied their partners to family planning counseling. The study found that 30 percent (95% CI: 25.5, 35.6) of the respondents had accompanied their partners to antenatal, postnatal, or child care services. The study found that most respondents had planned to provide financial support and childcare as part of their involvement in child care. The study found that being a father was significantly associated with financial support, = .55 , p<0.001. Being an expecting father resulted in significant interest to get involved in financial support (= .97 , p<0.001), as well as childcare (.88 , p<0.001), helping with homework ( ) and taking the child to a medical appointment ( ) before controlling for confound factors.

Gender-Equitable Men

This section asked men to recount incidents of intimate violence within their relationships and assessed the respondent's attitudes towards gender norms and social expectations on differing domestic responsibilities. Results show that 39.4 percent (95% CI: 34.2, 44.8) of interviewees reported incidences of violence in form of physical, sexual, financial, and emotional abuse. The study found that 29 percent of the respondents had high support for reducing intimate partner violence and promoting gender equality while 68 percent had moderate support and 3 percent had low support in reducing gender-based violence and promoting gender equality. Item analysis of gender-based domain suggests that 42 percent (95% CI: 36.6, 47.3) agreed with the statement: "when a woman is raped, she usually did something careless to put herself in that situation."

The Effects of SRH Knowledge on Service Utilization

The study examined whether SRH knowledge acquisition had effects on health seeking behavior and whether the knowledge had protective effects on intimate partner violence. Multivariate binary logistic regression modeling results suggest that SRH knowledge acquisition at baseline had no significant effects on SRH health seeking behaviors including safe male circumcision, HIV testing, family planning, and male involvement in antenatal/postnatal care. Results also show that SRH acquisition had no protective effects towards intimate partner violence OR Adjusted = 1.70 (95% CI: 1.04, 2.80, p<0.05).

DISCUSSIONS AND STUDY IMPLICATION

The results suggest fathers/expecting fathers in the project areas remain at risk of reproductive tract infections. The self-reported number of lifetime sexual partners in this relatively young cohort of men and the percent of multiple concurrency partnerships was high. The results also show that fathers are inadequately involved in SRH services and that women in this study probably do not involve or engage their male partners in participating in SRH. The lack of inviting men to SRH services is a problem motivated by socio-cultural socialization where girls learn early in life that SRH services are the responsibilities of women. In most instances, men ignore their responsibilities in child caring because of expected patriarchal customs and accepted gender norms. The results show about half of men in this study had accurate knowledge about SRH. However, the acquisition of SRH knowledge did not translate to health seeking behaviors including family planning, pre- and post-pregnancy counselling, and accompanying spouses/partners to antenatal, postnatal, and child care services. Knowing about SRH neither produced protective effect against intimate partner violence nor promoted attitudes towards gender equality at baseline.

SRH contributes to reducing STIs, HIV, and unintended pregnancy and has positive impact on safer sexual behaviors. A comprehensive age-appropriate participatory SRH education such as Fathers' Group may offer one of the key approaches to fast track male involvement in SRH in the changing demographic composition of unmarried fathers and expecting fathers in Botswana. Fathers' Groups have the potential to succeed because they are premised on addressing gender, power relations, and human rights for both women and men to improve SRH outcomes. Targeted father involvement enables men to engage and participate in equal sharing of responsibilities of caring for their children. It is critical for male involvement programs in the areas of study to design evidence-informed programs integrated into implementation science with continuous monitoring and planning to identify high impact interventions.

CONCLUSION

Sexual and reproductive health is the shared responsibility of both men and women. Thus, the current results underscore the urgent need to develop data-driven, sustainable, and context-relevant male involvement interventions in Botswana. While Botswana has clear policies, policy guidelines, standards, and norms for mobilizing male involvement in SRH, male involvement, engagement, and participation in SRH remains limited. There is, therefore, an urgent need for participatory community-based programs such as MenCare that encourage communication between men and women while also encouraging active involvement of both sexes in SRH decisions. The MenCare Project can also create a social platform to remove the deeply ingrained socio-cultural and patriarchal gender norm biases that hinder men and women to achieve a safe and satisfying sex life and have the capability to reproduce and the freedom to decide if, when, and how often to have children.

INTRODUCTION

There is a growing recognition that male involvement, participation, and engagement in sexual reproductive health (SRH) programs can significantly improve health benefits and health outcomes of children, women, and fathers (Promundo, CuluraSalud, & REDMAS, 2013). However, in many parts of the world men undervalue women and deny them agency in deciding their sexual rights and making decisions about their health. Most men still believe that women should bear the responsibility for reproduction, child care giving, and domestic chores. In some societies, cultural norms constrain some men from active participation in SRH programs, such as equal child care giving, thus prohibiting them from contributing to the welfare of their partners and children (Promundo et al., 2013). The lack of men's involvement in child care has been linked to the lack of accurate information about the positive roles of fathers in SRH. In addition, strong societal and cultural resistance continues to discourage men from taking an equal responsibility with women in domestic and child care work, as well as taking part in SRH decision-making. In societies where men earn more income than women, it is culturally understood that men's primary role within families is financial providers (Promundo et al., 2013).

BACKGROUND

Stepping Stones International (SSI) with funding from United Nations Population Fund (UNFPA) and the Stephen Lewis Foundation implemented a MenCare Project in Kgatleng District and Letlhakeng Sub-district (Kweneng West). MenCare is a global campaign that promotes the equitable, responsive, and non-violent involvement of fathers as caregivers in promoting children's and women's well-being. SSI mobilizes fathers and expecting fathers into groups in which they discuss male involvement in the lives of their children as well as wives or partners. Fathers' groups promote men's equal involvement in care giving and widespread uptake of equitable and non-violent practices. SSI infuses SRH into the MenCare Father's Group discussions aimed at encouraging fathers to access SRH services and get involved in caregiving that involves SRH. SSI recruited fathers and expectant fathers in the two project areas of Kgatleng District and Letlekang Sub-district during the 2015/2016 implementation cycle.

PROBLEM STATEMENT

Despite the Government of Botswana's efforts to make men equal partners in SRH responsibilities, the rate of male involvement, participation, and engagement remains poor (Jorosi-Tsiamo, Mogobe, and Mokotedi, 2013; Kang'the, 2009; Sebone, 2009). Current literature highlights several factors that contribute to the lack of male involvement, participation, and engagement in child caring and SRH. These factors include structural challenges of SRH service provisions, such as the lack of targeted, comprehensive, and appropriate quality services and the lack of accurate information about SRH. Male involvement in SRH is also constrained by socio-cultural, patriarchal gender norms, and economic factors. From the socio-cultural and patriarchal gender norms perspectives, boys in Botswana learn early in life that caring for children is not men's responsibility. On the other hand, girls learn that caring for children is their exclusive responsibility and that they should not expect men to contribute (Sebone et al., 2009). As a result, most women, especially those in rural areas, expect only financial assistance from their male partners (Joris-Tshiamo et al., 2013).

The 1994 International Conference and Population Development (ICPD)'s Program Plan of Action urged governments to involve men in SRH and make SRH services available, accessible, acceptable, and affordable to both male and female clientele. Botswana and her development partners have since developed policies, policy guidelines, and programs to encourage men's involvement and participation in SRH. The current SSI initiative is expected to contribute towards Botswana's goal of promoting male involvement in SRH, gender equality, and prevention of gender-based violence.

PURPOSE AND OBJECTIVES OF STUDY

The MenCare Project at SSI is one of the initiatives creating a social platform for bringing fathers and expecting fathers together to discuss issues such as fatherhood, child care, gender equality, and prevention of gender-based violence. SSI educates fathers about the benefits of SRH services and encourages them to be more involved and compassionate and to become equitable role models for their children. The purpose of this study was twofold: first, to explore the behaviors and attitudes of men on SRH, gender equality, and gender-based violence; and second, to use the current baseline to develop effective approaches that could promote SRH, gender equality, and prevention of intimate partner violence. The study was intended to achieve the following objectives:

- To establish a deeper understanding of men's experiences and perspectives regarding SRH and fatherhood,
- To investigate the effects associated with the knowledge-action gap,
- To explore the enabling factors and challenges for SRH utilization, and
- To examine men's attitudes about equality and gender-based violence.

The study was aimed at answering the following research questions using qualitative and quantitative research inquiries: "Does knowing about SRH result in service-seeking habits among respondents? Does knowing about SRH reduce the incidence of violence and promote equitable roles among fathers/expecting fathers in the project areas?" The quantitative methods of inquiry answered these two questions. The qualitative methods of inquiry answered this question: "What are the causes and contributing factors to the discrepancy between knowledge - action for SRH?" SSI hypothesized that most fathers and expected fathers in Botswana are informed, aware, and have easy access to SRH services, but do **not** seek and use SRH services because of socio-cultural beliefs and patriarchal gender norms.

Sexual Reproductive Health

Sexual health is fundamental to the physical and emotional health and well-being of individuals, couples, and families, and to the social and economic development of communities and countries. It encompasses the rights of all persons to have the knowledge and opportunity to pursue a safe and threat-free sexual life. Reproductive health encompasses the state of complete physical, mental, intellectual, and social well-being and not merely the absence of disease or infirmity in all matters relating to the reproductive system and its functions, processes, and system at all stages of life (WHO, 2010). Taken together, sexual reproductive health (SRH) implies that people with good sexual reproductive health are able to have a safe and satisfying sex life and have the capability to reproduce and the freedom to decide if, when, and how often to have children (Meena, Verme, Kishore, & Ingle, 2015). These people are able to exercise their sexual and reproductive rights including the right to sexual fulfillment and freedom from violence relating to sexuality and reproduction, as well as the right to services and information relating to sexual and reproductive health. In order to have a satisfying and safe sex life and the ability to decide if, when, and how often to reproduce, men and women should have access to:

- Comprehensive, accurate, and appropriate quality information about sex and sexuality;
- Knowledge about the risks they face and their vulnerability to the adverse consequences of sexual activity;
- Availability and access to sexual health care;
- An environment that affirms and promotes sexual reproductive health (WHO, 2010).

The Program of Action described two primary objectives that have relevance to SRH. The first objective relates to the quality of a sexual relationship, emphasizing the need to promote the adequate development of responsible sexuality, permitting relations of equity and mutual respect between the men and women. The second objective concerns an individual's access to reproductive and sexual health services, including family planning and the protection and exercise of the individual's rights. In particular, it affirms the need to ensure that women and men have access to the information, education, and services needed to achieve good sexual health and exercise their reproductive rights and responsibilities (United Nations Program of Action on ICPD, 1994).

Literature suggests that services designed around the four tenets of sexual reproductive health are more likely to promote a safe and satisfying sexual life (SAfAIDS, 2012). The four tenets of SRH address the sexual and reproductive health needs of men and women from pre-conception (before a woman becomes pregnant) to post-delivery (after the birth of a child) (See Figure 1). The four tenets take into account the provision of adolescent SRH services, the prevention and management of infertility, and the prevention of gender-based violence (SAfAIDS, 2012).

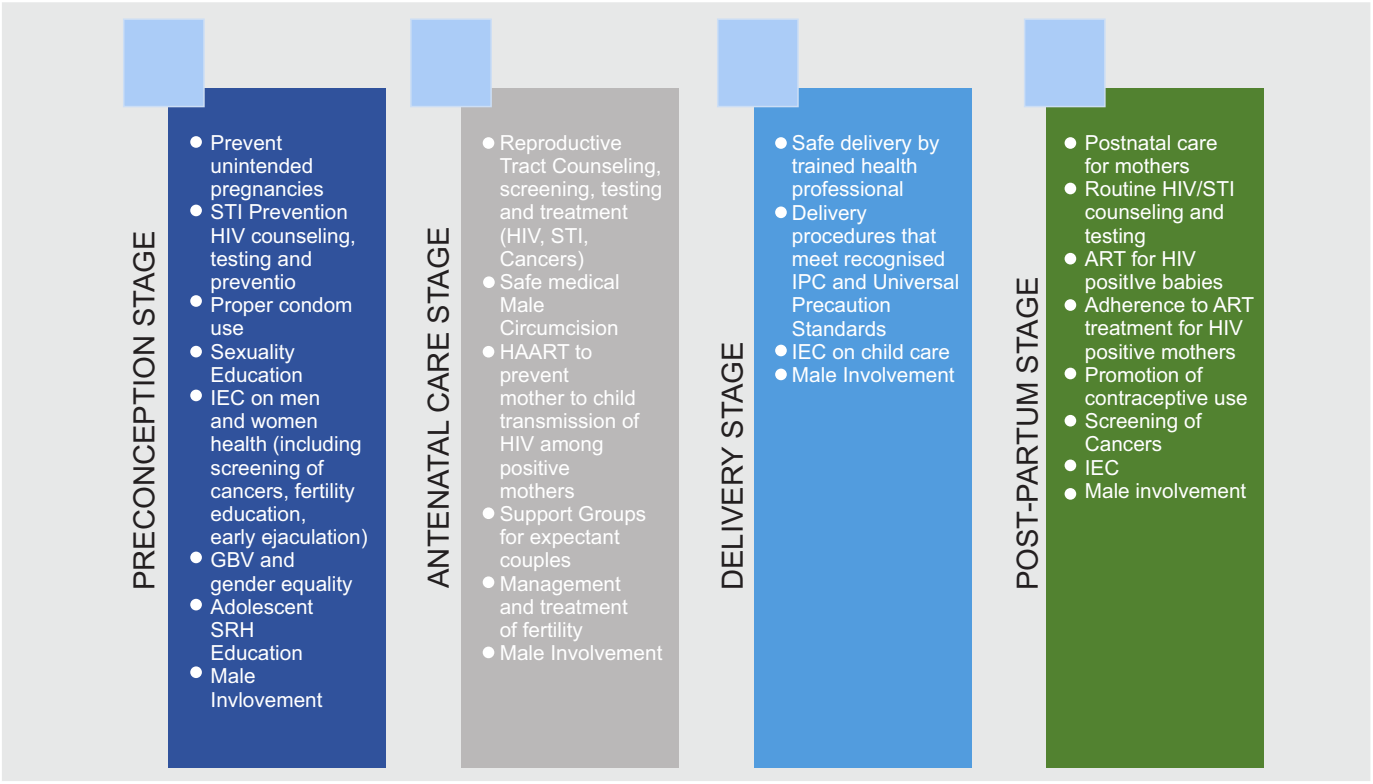

Figure 1 : Main tenets of sexual reproductive health information and services for men and women Adopted from SAfAIDS, 2012.

WHY INVOLVE FATHERS IN SEXUAL REPRODUCTIVE HEALTH?

Fathers play important roles in the sexual and reproductive health of women. Studies and anecdotes suggest that men often hold power and control over relationships with women. They decide on sexual matters, including when and how to have sex and what protection to use. The socio-cultural notions about fatherhood, gender roles, and parenthood shape fertility decisions with the man at the center (Botswana Ministry of Health, Male Involvement, and UNFPA, n.d). In most cultures, men are de facto heads of households and are the ones who influence childcare and disciplinary practices as well as access to SRH. Despite men's power and control, women carry the burden of childcare and SRH with little or no support from men. Occasionally, women experience resistance from their male partners on issues of SRH (Akindele and Adebimpe, 2013). As a result, in most developing countries a significant proportion of women use SHR services, such as contraceptives, without the knowledge of their partners. Many women are afraid to raise the issue of SHR for fear that their partners may respond violently (Akindele and Adebimpe, 2013). While socio-cultural norms and patriarchal gender norms are the primary culprits for the lack of male involvement in SRH and gender equality issues, there is evidence that poor programming of SRH also contributes to poor male involvement. In some countries, SRH programs are designed from socio-cultural and patriarchal gender norms perspectives with more focus on females than males (Akinde and Adebimpe, 2013).

Engaging men as partners in SRH is critical because of the positive aspects of the child's development and reduction of childhood illnesses that result from the presence of a father. Studies suggest that male involvement is associated with reduced behavioral and psychological problems among children, better educational achievement, and positive personal development (Jorosi-Tshiamo et al., 2013). Fathers' engagement improves cognitive development and economic advancement while simultaneously reducing criminal behaviors (Sarkadi, Karistiansson, Oberklaid, and Bernberg, 2008). Cross-culture studies on fathers' involvement in childcare show several developmental benefits. Children who grow up in households where fathers are involved in their upbringing have lower levels of neglect compared with children who grow up without fathers (Thupayagale-Tshweneagae et al., 2012). According to Anderson, Kaplan, and Lancaster (1999), fathers' absence can have detrimental effects on the psychosocial development of the child.

These harmful effects are noteworthy within Botswana, where rates of father absenteeism are high. In a qualitative study of University of Botswana graduating students, Thupayagale-Tshweneagae et al. (2012) explored the emotional and social impact of growing up in father-absent families. The researchers found that youth raised in father-absent families viewed themselves as 'incomplete' compared to their father-present counterparts. The researchers further observed that father-absent respondents felt they had not lived a full quality life without the presence of a father (Thupayagale-Tshweneagae et al., 2012). These observations show that the benefits of fatherhood and male involvement in SRH cannot be overemphasized.

BARRIERS TO SRH AMONG FATHERS

Fathers as Financial Providers

Economic, political, and religious beliefs of a society influence expectations, rules, and customs about gender roles and fatherhood. Fatherhood has historically been perceived as a financial responsibility with women largely involved in SRH-related roles such as child caring (Ozguna, Erdena, Ciftci, 2011). As a result, fathers have been invisible in parenting programs in both developed and developing countries. However, researcher suggests the financial provider perspective has been shifting because of the changing worldview, despite the persistence of African societies viewing men primarily as financial providers compared with developed countries (Daly, Ashbourne and Brown 2009; O'Brien 2011). The perspective of men as financial providers creates a problem of father absenteeism as they travel away from home to seek employment. Absenteeism from fatherhood is a well-known social problem in southern Africa. According to the South African Institute of Race Relations (SAIRR), 52 percent of African children in South Africa had absent fathers in 2009 compared to 15 percent of white children and 12 percent of Indian children (Chauke & Khunou, 2014). No national studies on father absenteeism have been conducted in Botswana; however, in a qualitative study conducted in Mochudi, La Blanc et al. 2014 found that more than 50 percent of men who participated in the study grew up without their biological fathers or a father figure.

Socio-cultural Barriers

Often, socio-cultural elements define individual roles based on age and sex (Ozguna et al., 2011). The experiences of fatherhood vary within and across cultures. That is, the way in which a father is expected to behave, and the ways in which others treat the father are variable. Diversity in the experience of fatherhood may be closely linked cultural variations and the social structures such as kinship patterns, family structures, and economic systems. Differing perspectives of males and females surrounding household roles is strongly affected by society's rules and customs about gender. Members of every society have expectations and beliefs, sometimes clear, sometimes unspoken, on what men and women are expected to do or not to do (Ozguna et al., 2011). Examining the participants' perspectives about fatherhood, gender equality, violence, and SRH is critical to understand the role of socio-cultural and historical precedents among men in Botswana.

Patriarchal Barrier

Patriarchal gender norms and masculinity are some of the primary factors that shape men's attitude towards violence and gender inequality. Kang'ethe (2009) noted that most men in Botswana disregard their SRH responsibilities because of patriarchal gender norms. Kang'ethe (2009) also noted the legal implication of Botswana's statutes as a barrier to male participation in SRH. For example, the customary law denies unmarried men the right to live with and care for their children while common law expects them to provide financial support (Kang'ethe, 2009). Jorosi-Tshiamo et al. (2013) noted that Botswana does not have paternity leave policy, an oversight which further limits male involvement in child care activities. The notion of masculinity is considered as one of the motivating factors for men to engage in violence. Wright (2014) observed that when men feel unable to live up to societal expectations of masculinity, they are more likely to use violence in the home to assert their authority over women.

METHODS AND PROCEDURES

STUDY DESIGN

This study was designed as prospective interventional concurrent mixed methods study of fathers and expecting fathers in Kgatleng District and Letlakeng sub-District. It was prospective interventional because it was designed to conduct a baseline study during participants' recruitment in the Fathers' Group sessions and use the results to develop SRH interventions. Fathers exposed to MenCare interventions would then be followed over eighteen months and assessed at the end of the implementation cycle to determine any changes in the knowledge-to-action gap about SRH, gender equality, and gender-based violence. The study design was mixed methods because it combined both quantitative and qualitative methods of research inquiries. This report discusses findings of the quantitative arm of the mixed method design and addresses three of the four research objectives.

The Quantitative Arm: Baseline Cross-sectional Study

The quantitative arm of the mixed method was a cross-sectional study of all consenting men recruited to participate in the Fathers' Group. The study collected a snap shot of information about respondents' knowledge of SRH and the use of SRH services, including HIV testing and counseling services, male circumcision, family planning, STI prevention, and treatment services. The study also examined respondents' attitudes towards gender-based violence and gender equality. The baseline study provided data on the pre-intervention knowledge-action gap of the respondents recruited in the Fathers' Groups.

STUDY POPULATION

The cross-sectional study targeted men recruited in the SSI's MenCare Project. The eligibility into the Fathers' Groups at SSI was restricted to men who have children aged five years or younger and men expecting to become fathers for the first time.

STUDY SETTING

The cross-sectional study was conducted in the MenCare Project areas in Kgatleng District and Letlekang sub-District in Kweneng West.

RECRUITMENT OF FATHERS

SSI recruited fathers and expecting fathers using multi-pronged community mobilization approaches. Recruitment efforts for the MenCare Project involved health facilities, government departments in project districts, community football tournaments, and weekly radio programs. The project also recruited eligible men using a door-to-door campaign in the project districts.

SAMPLE SIZE DETERMINATION

The study asked all fathers and expecting fathers recruited in Fathers Groups in the project areas to participate in the cross-sectional study at baseline. The number of fathers at baseline was determined to meet the required sample for the end line study. The sample at end line required to determine the effects of the MenCare Project interventions was determined based on simple random probability sampling. The study had planned to select fathers and expecting fathers at end line randomly, each with an equal chance for inclusion. The probability that a particular father/expecting father was selected was n/N, where n was the size of sample and N was the size of the underlying population at baseline (Pagano and Gauvreau, 2000).

$$\mathrm{n} = \frac{z^2 pi(1 - pi)}{d^2}$$

n= Unadjusted simple random sample
z^2= 95% confidence interval
p_i= Estimated number of fathers and expectant fathers (5%)
d^2 = Precision (standard error)

The ideal adjusted sample at the end line was **285**. The study determined that a sample of about 340 men or more could be ideal to draw a sample of 285 at the end line. As such, all eligible men recruited in the Fathers' Group were asked to take part in the study.

DATA COLLECTION AND INSTRUMENTATION

Data were collected using a standardized questionnaire that collected abbreviated information on SRH, health service seeking behaviors, gender equality, gender-based violence, sexual history, and demographic profile of the respondents. Trained research assistants collected information using face-to-face interviews from consenting respondents. The standardized face-to-face questionnaires were translated into Setswana to facilitate comprehension and promote information consistency. The questionnaire was piloted in non-study villages in Kgatleng District before collecting the research data.

DATA MANAGEMENT AND PROCESSING

Data were entered, managed, and processed using International Business Machine (IBM) Statistical Package for Social Sciences (SPSS) version 22 for Windows (IBM SPSS, Armonk, New York, USA). Data were double entered as a measure to reduce data entry errors. All electronic files were password protected, and no unauthorized persons had access to the dataset. The data were not shared with any third party. Data were processed, cleaned, and edited for entry errors in SPSS to improve quality and rigor. As part of data cleaning, the study merged the datasets from two different data entry clerks to identify entry discrepancies. The study sampled five percent of completed questionnaires and compared with entered data. The study also computed frequency tables and carried out cross tabulations to identify errors and incomplete questionnaires. Data processing also included missing values analysis. The study planned to address missing data using complete case analysis for records missing more than 20 percent of values and, where appropriate, multiple imputation for records missing less than 20 percent of missing values.

None of the data records collected at baseline missed more than 20 percent of the values. As a result, the study did not perform a complete analysis. The highest percentage of missing values per record was 6.6 percent. The study created two new datasets from the cleaned and edited data file. One dataset was imputed. The comparative analysis found that the results from the two datasets (imputed and non-imputed) were similar. The data analysis for this study was performed on the non-imputed dataset.

DATA ANALYSIS STRATEGY

Data were analyzed using IBM SPSS for Windows version 22. Cross-sectional data at baseline were non-probabilistic as the data analysis strategy was non-parametric. The analysis was largely descriptive, which constituted summation of data features aimed at understanding the distribution of each variable and the nature and strength of the relationships among variables. The descriptive analysis involved organizing and displaying in frequency tables and graphs. The study calculated 95% confidence intervals for proportions using the Analytical Tools for Public Health developed by the European Association of Public Health Observatories (2014) based on the Wilson Score Method. The Wilson Score Method for calculating 95% confidence intervals for proportions is shown below (Newcombe and Altman, 2000).

$$p_{lower} = \frac{\left(2O + z^2 - z\sqrt{z^2 + 4Oq}\right)}{2\left(n + z^2\right)}$$

The descriptive computation of association between categorical variables of interest (nominal vs. nominal, nominal vs. categorical) was based on Chi-square ($\chi 2$) measures of association. The measure of the strength of association between 2x2 contingency tables was based on Phi (ϕ) statistic. The study computed Cramer's V statistic for the 2XR contingency tables where one variable had more than two categories (Field, 2009: p. 698). The statistic value of 0 for both measures indicated a lack of strength in the association and a statistic value of 1 stood for a strong association. The study computed lambda (λ), a proportional reduction error to measure the strength of association between categorical variables where one variable was measured on the ordinal scale. Lambda measures ranged from 0 indicating the weak strength of association and whereas 1 indicates a strong association.

MEASUREMENT OF GENDER-BASED VIOLENCE AND EQUALITY

The study modified and used two domains of the Gender Equitable Men (GEM) Scale—violence and domestic chores—to assess attitudes toward gender norms and differing social expectations for men and women in child rearing/domestic chores in intimate relationships (Nanda, 2011). The study modified and dropped some of the items after a pilot study. The violence domain used in this study contained four modified items, and the domestic chores domain had five modified items (Nanda, 2011; p.14 – 15). Each of the GEM items was measured on a five-point Likert scale, where 0 = not sure, 1 = strongly agree, 2 = agree, 3 = disagree, and 4 = strongly disagree. Some items were reverse scored if a high score would reflect low support for gender equity. High scores represent high support for equitable gender norms. Responses to each item were summed to create continuous scores and re-coded into a three-point categorical, ordinal variable: high, moderate, and low support for equitable gender norms. The Cronbach alpha for the overall GEM scale was $\alpha = .66$ for seven measurement items (two were dropped). The scale was less sensitive than the original GEM scale from studies conducted elsewhere, probably due to the reduced number of items used on the scale. However, the Cronbach alpha had good internal consistency for the purpose of this study.

BOOTSTRAPPING

Bootstrapping is a numerical sampling technique where the data sampled are resampled with replacement data which is performed when the parametric assumptions of a sample population are not met (such as small sample size and unknown sampling distribution). Bootstrapping estimates the population distribution using the information based on a number of re-sampled samples. The basic assumption is that when the sample is a good approximation of the population under study, bootstrapping will provide a good approximation of the sample distribution (Efron and Tibshirani, 1993; Rochowizc, 2010). The sampling distribution in this study was unknown because data were not selected based on probabilistic sampling. The study used 1000 bootstrapping samples to compute a logistic regression model; thus allowing the study to make inferences. In bootstrapped analysis, there is no need to determine the underlying sampling distribution for any population quantity because results are based on multiple observations (Rochowizc, 2010).

The study computed a binary multivariate logistic regression model based on 1000 bootstrapped samples of the original study sample. The dependent variable (know SRH?) was dichotomous coded as Yes = 1 and No = 0. The independent variables were both categorical and interval variables, which included action related SRH responsibilities including HIV counseling and testing, safe male circumcision, family planning counseling, attending antenatal and postnatal care with a partner, the incidence of violence, and attitudes towards gender equality. The model computation accounted for confounding factors including age, residential district, education, occupation, and marital status.

ETHICAL AND LEGAL CONSIDERATION

The study collected information from human subjects; as such, design and conduct of the study had to meet basic ethical principles of respect for persons, beneficence, and justice. These principles were critical because they safeguard the legality, dignity, and welfare of research subjects. The study received ethical approval and clearance from the Health Research Development Committee Institutional Review Boards.

SAMPLE DISTRIBUTION

The study interviewed fathers and expecting fathers in Kgatleng and Kweneng West Districts between November 2015 and January 2016. The men had participated in the Fathers' Group, a social mobilization initiative at Stepping Stones International, which works with fathers and new expecting fathers to take an active role in caring for their children.
The pre-determined sample was 340. Ten men declined to take part in the study, and another ten men were excluded because they were neither fathers nor expecting fathers. A total of 320 men (94.1 percent) constented and met the inclusion criteria for the cross-sectional study (Figure 1).

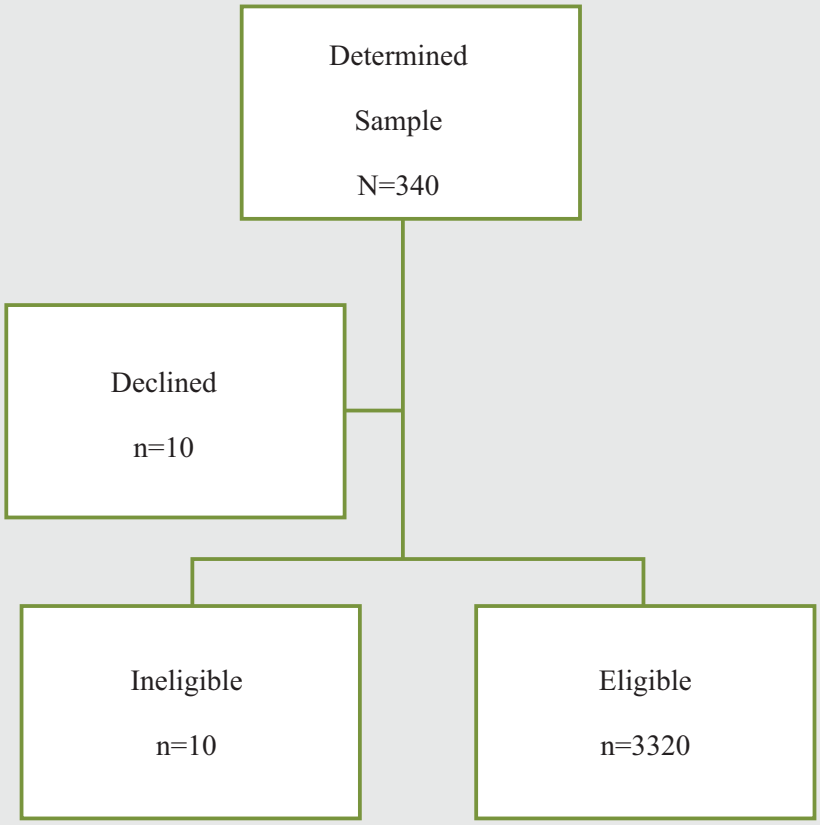

Figure 2: Cross-sectional of fathers and expecting fathers sample flow

DEMOGRAPHIC PROFILE

Fathers made up 94.4 percent of the respondent population. The mean number of children per father was M number of children = 1.8, ± 1.2, 95% CI: 1.6, 1.9, with a range of 8 children from 1 to 9. The overall mean age of fathers and new expecting fathers was M age = 31.9 years, ranging from 17 years to 62 years (Table 1). New expecting fathers were significantly younger than fathers, M expecting fathers = 26.4, ±8.0, 95% 24.9, 28.0 vs. M father = 32.1, ±8.0, 95% CI: 31.8, 32.5. The one-way analysis of variance (ANOVA) of the mean age between expecting fathers and fathers was significant $F(1, 1913) = 51.5$, $p<0.001$.

Table 1:		
Demographic profile of the sample respondents (N = 320)		
Exploratory variable	Number *(%)*	95% CI
Fatherhood Status		
Fathers	302 (94.4)	(91.3, 96.4)
New Excepting Father	18 (5.6)	(3.6, 8.7)
Residential District		
Kgatleng	132 (41.3)	(36.0, 46.7)
Kweneng West (Lethlakeng)	188 (58.8)	(53.3, 64.0)
Age (in Years)		
15 – 29	148 (46.3)	(40.9, 51.7)
30 – 44	148 (46.3)	(40.9, 51.7)
45+	24 (7.4)	(5.1, 10.9)
Mean Age (SD)	31.9 (±8.1)	(31.0, 32.7)
Education Level		
No Formal Education	22 (6.9)	(4.6, 10.2)
Primary Education	48 (15.0)	(11.5, 19.3)
Secondary Education	224 (70.0)	(64.8, 74.8)
Tertiary Education	26 (8.1)	(5.6, 11.6)
Marital Status		
Never Married	216 (67.5)	(62.2, 72.4)
Married	20 (6.3)	(4.1, 9.5)
Living with Partner	82 (25.6)	(21.2, 30.7)
Divorced/Separated	2 (0.6)	(0.2, 2.2)

The majority (70.0 percent) of the respondents who took part in this study had obtained a secondary education. Fifteen percent had primary school education, and the remainder had either tertiary education or no formal education. Most of the fathers and new expecting fathers had never married (Table 1). At the time of the interviews, 67.5% (n = 216) of the fathers and new expecting fathers were not living with their partners (Figure 3).

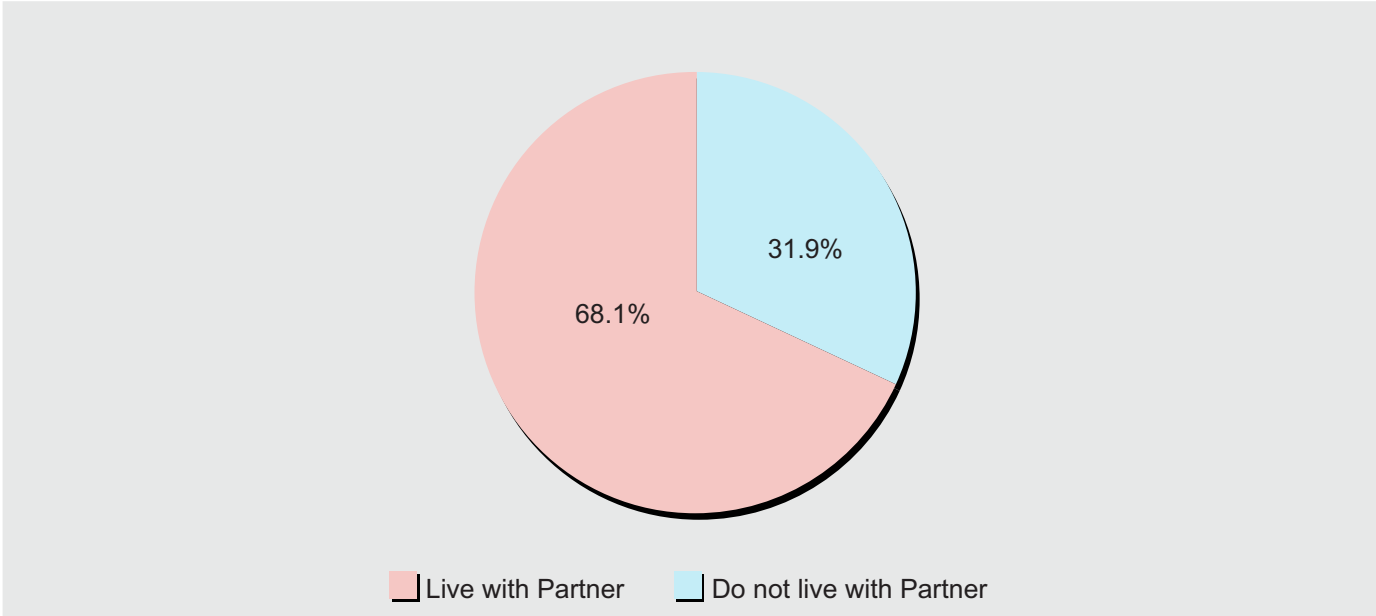

Figure 3: Self-reported living arrangements between fathers/expecting fathers and their partner

SOCIOECONOMIC PROFILE

Half of the respondent population (52.2 percent) had full-time employment at the time of the interview. Respondent's occupation varied from civil servants (teachers, healthcare workers, and court attendants) and technicians/mechanics to security guards, laborers, garden boys, and head boys. Respondents who had no full-time employment at the time of the survey (47.8%) relied on part-time work, especially in construction companies, or managed small business ventures for economic survival. The study found that 5.9% (n = 19) of the respondents had no source of income at the time of the interview. Self-reported results show 79.4 percent of the respondents made ≤2,500 BWP per month and only one in every ten respondents made ≥5,001 BWP per month (Figure 4).

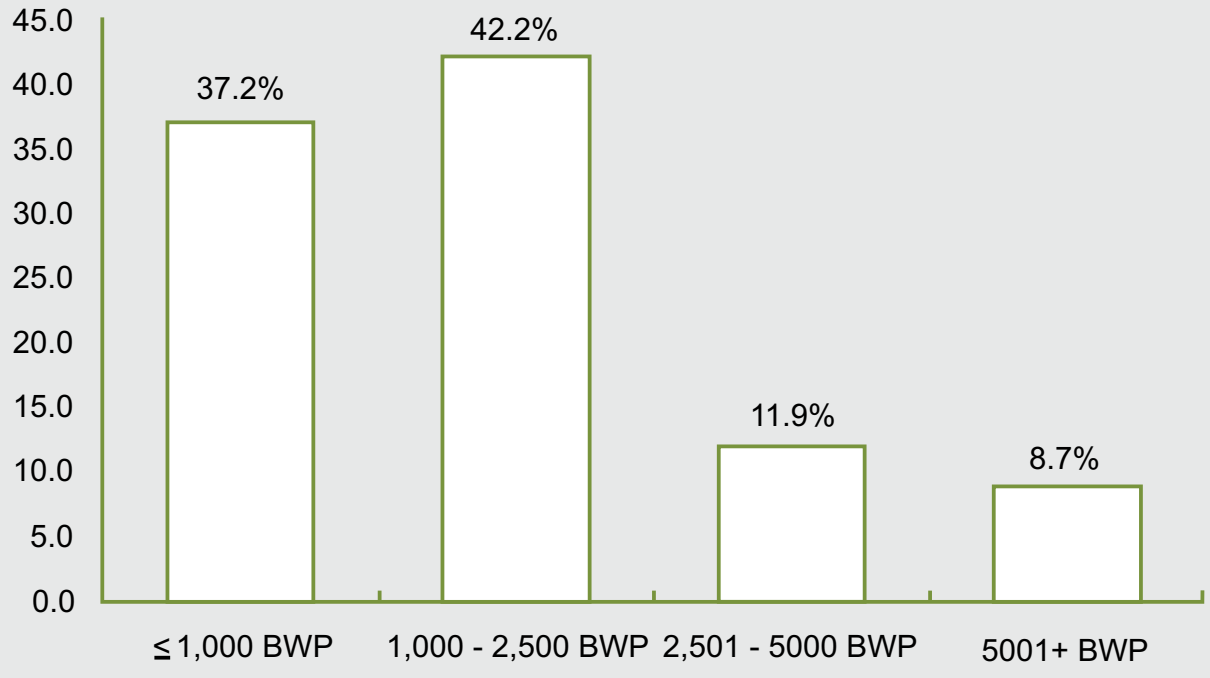

Figure 4: Respondents self-reported monthly income in Botswana Pula (BWP)

When respondents were asked whether their partners had employment, 54.7% (n = 175) of the respondents reported that their partners had no employment. About 17.2 percent (n =55) reported that their partners had employment, and 15.6 percent (n = 50) said their partners were self-employed. About 1.6 percent (n = 5) of the respondents' partners were attending tertiary education at the time of the interview, and 10.9 percent (n = 35) of the respondents did not know the economic activities of their partners.

SEXUAL HISTORY

The study asked respondents to report on the number of lifetime sexual partners they had three months before the study. Data suggest that about half (52.0%) of the respondents had ≤five lifetime sexual partners, and 48.0 percent reported having ≥six lifetime sexual partners. The number of lifetime sexual partners varied with age. Respondents in the 30–44 age group reported more lifetime sexual partners than those in the 15–29 age group and those 45 years and older (Figure 5). The association between the number of lifetime sexual partners and age groups was not statistically different.

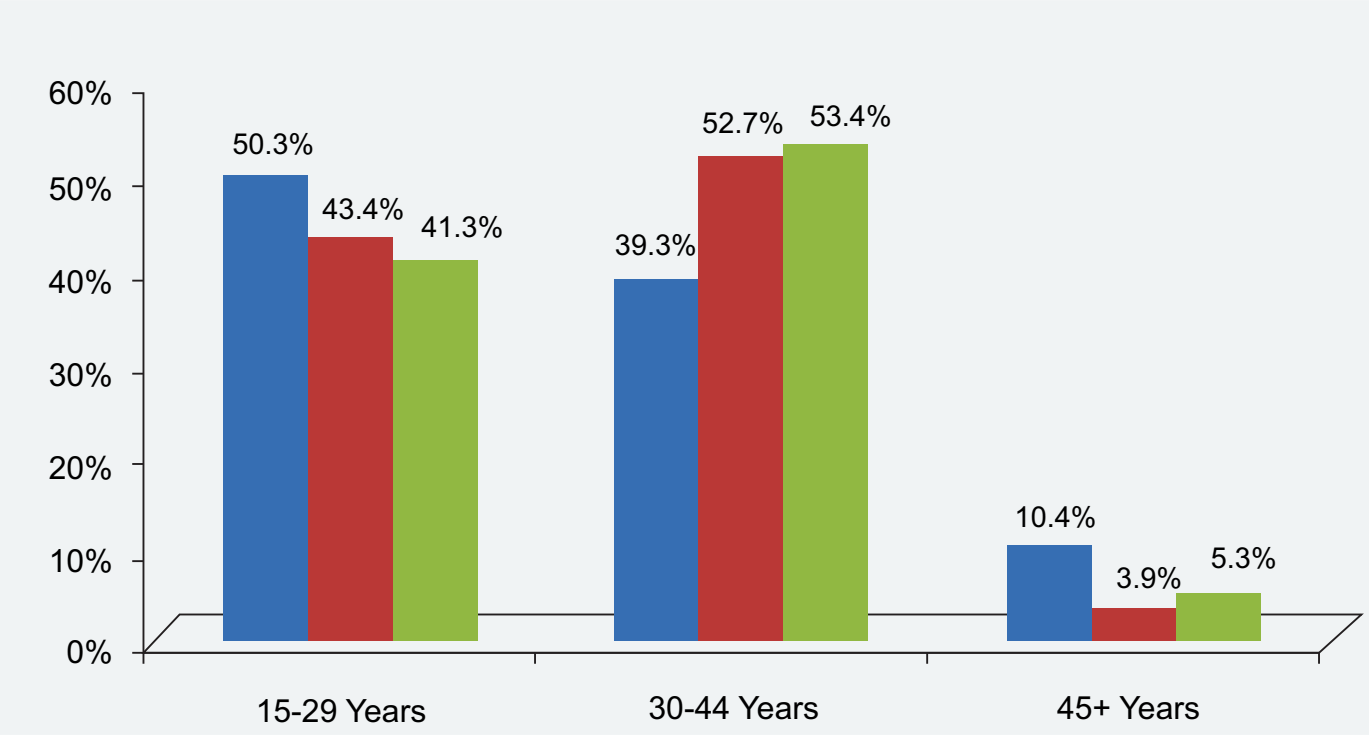

Figure 5: Self-reported number of lifetime sexual partners by age categories

The study found that 87.5 percent (n = 280) of the respondents had one sexual partner while 12.5% (n = 40) had two or more sexual partners three months before the respondents were interviewed. The mean number of sexual partners three months before the study was M sex partners = 1.1, ±.93, 95% CI: 1.00, 1.20.

KNOWLEDGE ABOUT SEXUAL REPRODUCTIVE HEALTH

The study asked respondents if they knew the meaning of sexual reproductive health (SRH). Those who said they knew SRH were asked to give an example of SRH services. Respondents were also asked if they had access to SRH services, where they would get the services, and the number of times they had used health services in the last 12 months. Results show that 54.7 percent of the respondents (n = 175) knew what SRH meant and were able to cite accurate examples of SRH services. Nine in every ten respondents who knew SRH had access to the services (Table 2). The most commonly cited example of SRH included HIV testing and counseling, family planning, maternal and child health services, and safe male circumcision. The study found that the majority of the respondents used health services. The mean number of times the respondents had received health services 12 months before they were interviewed was M = 3.1, ±3.2, 95% CI: 2.7, 3.4. The median was 2 (IRQ =2) with a range of 20 (Table 2).

Table 2:		
Self-report knowledge of sexual reproductive health and health service utilization among fathers and expecting fathers (N=320)		
Exploratory variable	Number *(%)*	95% CI
Know Sexual Reproductive Health?		
Yes	175 (54.7)	(49.2, 60.6)
No	145 (45.3)	(39.3, 50.8)
Have Access to SRH Information (n = 175)		
Yes	155 (88.6)	(83.0, 92.5)
No	20 (11.4)	(7.5, 17.0)
Examples of SRH (n = 175)		
HIV Testing	145 (82.9)	(76.6, 87.7)
HIV Counseling	47 (26.9)	(20.8, 33.9)
Family Planning	70 (40.0)	(33.0, 47.4)
Maternal and Child Health	63 (36.0)	(29.3, 43.3)
Safe Male Circumcision	32 (18.3)	(13.3, 24.7)
Sexually-transmitted Infection (STI) Treatment	52 (29.7)	(23.4, 36.9)
Gender-based Violence (GBV)	9 (5.1)	(2.7, 9.5)
HIV Health Promotion	5 (2.9)	(1.2, 6.5)
Where Do You Get SRH Information? (n = 155)		
Health Facility	128 (82.6)	(75.8, 87.7)
Drama	21 (13.5)	(9.0, 19.8)
Friends and Relatives	5 (3.2)	(1.4, 7.3)
Media	3 (1.9)	(0.7, 5.5)
Health Services Utilization		
Ever Used Health Services	298 (93.1)	(89.8, 95.4)
Never Used Health Services	22 (6.9)	(4.6, 10.2)
Mean Service Utilization		
Mean	3.1 (±3.2)	(2.7, 3.4)
Median	2 (IRQ = 2)	(0, 20)

THE RATE OF SAFE MALE CIRCUMCISION

About 36.3% (n = 116) of the respondents reported being circumcised before the survey (Figure 6). Among respondents who reported being circumcised, the majority (84.5 percent, n = 98) had been circumcised in healthcare settings by a professional healthcare worker. The remainder, 15.5 percent (n = 18), had been circumcised during 'Bogwera', an initiation ceremony practiced in some cultures in Botswana. Most of the circumcisions (85.3 percent) were performed after the government launch of the circumcision program in 2009.

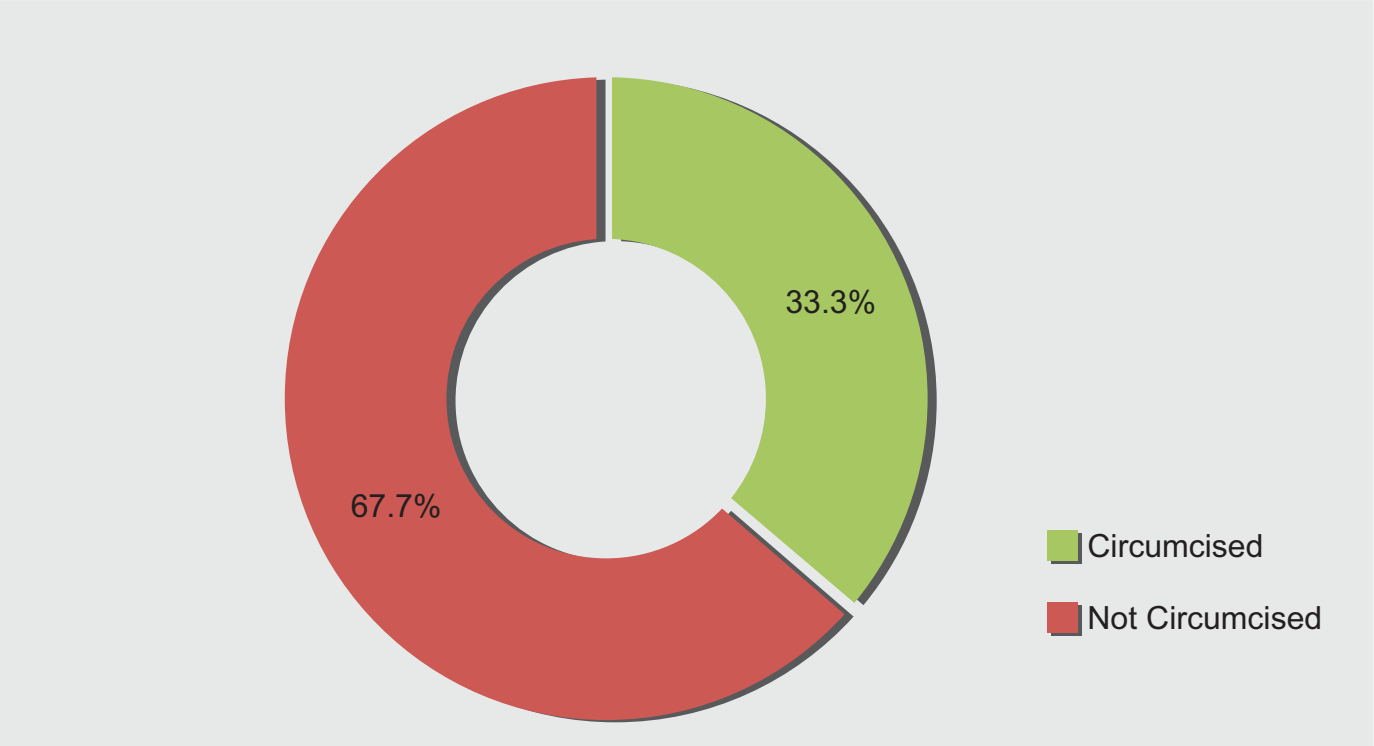

Figure 2: Percent distribution of self-reported safe circumcision among respondents in the study areas

Results suggest most men sought to undergo circumcision for three main reasons: HIV prevention, hygiene, and partner request. All respondents who reported undergoing circumcision were satisfied with the services they received (Table 3). The study asked the respondents who had not been circumcised (n =204) to provide the number one reason for choosing not to be circumcised. The study also asked this group of men the likelihood of choosing circumcision three months after the interview. These respondents were also asked whether they would decide to undergo circumcision if there were female health providers at the clinic.

Table 3: Self-report knowledge of sexual reproductive health and health service utilization among fathers and expecting fathers (N=320)		
Exploratory variable	Number *(%)*	95% CI
Been Circumcised?		
Yes	116 *(36.3)*	(31.2, 41.7)
No	240 *(63.7)*	(58.3, 68.8)
When? (n = 116)		
Before 2009	17 (14.7)	(9.4, 22.2)
2009–Present	99 (85.3)	(77.8, 90.6)
Where (n = 116)		
Government Health Facility	79 (68.1)	(59.2, 75.9)
Private Health Facility	19 (16.4)	(10.7, 24.2)
Bogwera	18 (15.5)	(10.7, 23.2)
Reasons for circumcising (n = 116)		
HIV Prevention	79 (68.1)	(59.2, 75.9)
Hygienic Reasons	16 (13.8)	(8.7, 21.2)
Partner Request	12 (10.3)	(6.0, 17.2)
Cultural Reasons	6 (5.2)	(2.4, 10.8)
Health Reasons (had difficulty urinating)	1 (0.9)	(0.2, 4.7)
Encouraged by a Friend Who Has Done It	1 (0.9)	(0.2, 4.7)
Religious Reasons	1(0.9)	(0.2, 4.7)
Were you satisfied with the services? (n = 116)		
Very Satisfied	72 (62.1)	(53.0, 70.4)
Satisfied	44 (37.9)	(29.6, 47.0)
Indifferent	-	-
Dissatisfied	-	-
Very Dissatisfied	-	-
Main reasons for not choosing circumcision (n =183[+])		
Fear of pain	45(24.6)	(18.9, 31.3)
Not time from work	41(22.4)	(17.0, 29.0)
Need more information	28 (15.3)	(10.8, 21.2)
Health reasons	27 (14.8)	(10.3, 20.6)
Cultural/religious reasons	19 (10.4)	(6.7, 15.6)
Distance to nearest clinic	12 (6.6)	(3.8, 11.1)
Embarrassment	11 (6.0)	(3.4, 10.4)
[+] 21 cases missing		

The main reasons for not choosing circumcision among the men in this study included fear of pain, lack of time off from work, need for more information, and health reasons. Most of the respondents who cited health reasons were told they could not circumcise because they were sick (Table 3). Results suggest that about half the men who had not been circumcised at the time of the interview were probably or definitely going to choose circumcision in the next three months. About four in every ten men in this group were definitely not or probably not going to choose circumcision three months and 13 percent were 40–60% likely to choose circumcision (Figure 7). The measure of association between reasons for choosing not to undergo circumcision and the likelihood to circumcise in the future (measured on a 5-point Likert scale) was significant; $\chi^2 = (5) = 299.0, p < 0.001, \lambda = .55, p < 0.001$

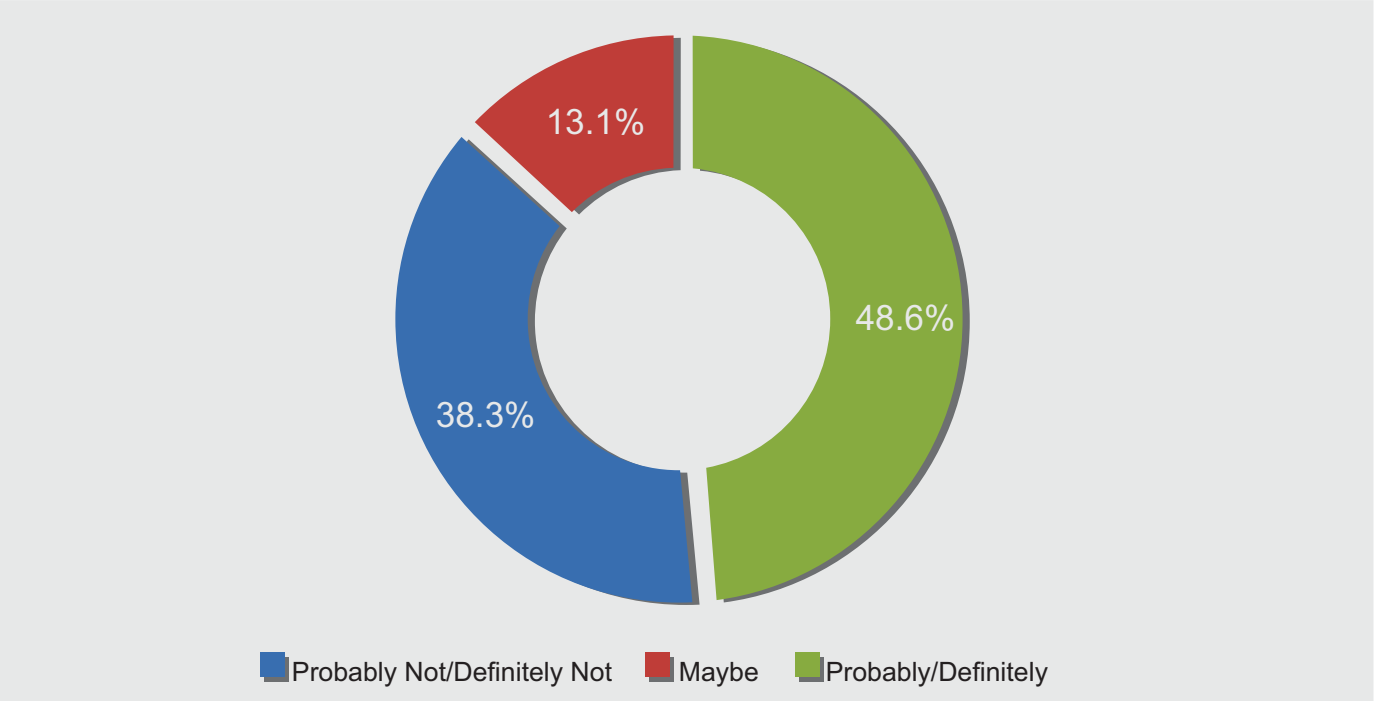

Figure 3: Estimated likelihood that uncircumcised cohort of men in the study will circumcise in the future (N = 204)

The study measured likelihood to circumcise in the future on a 5-point Likert scale where '0' stood for definitely not (DN), '1' meant probably not (PN), '2' signified maybe, '3' represented probably yes (PY), and '4' denoted definitely yes (DY). Table 4 summarizes reasons for not choosing circumcision aggregated by the likelihood to circumcise in the future.

Table 4

Distribution of respondent's reasons for choosing not to circumcise aggregated by the likelihood to seek circumcision in the next three months (N=183)+

Reasons for not circumcising	# Respondents	DY/PY (%)	Maybe (%)	PN/DN (%)	Mean (SD)	95% CI
Cultural/Religious reasons	19	*15.8*	*15.8*	*68.4*	1.16 (1.2)	(0.68, 1.72)
Health reasons	27	*25.9*	*11.1*	*63.0*	1.19 (1.4)	(0.67, 1.73)
Fear of pain	45	*46.7*	*8.9*	*44.4*	1.91 (1.5)	(1.48,2.39)
Need more information	28	*39.3*	*17.9*	*42.8*	1.93 (1.6)	(1.33, 2.55)
Embarrassment	11	*54.5*	*27.3*	*18.2*	2.64 (1.4)	(1.87, 3.40)
No time off work	41	*75.6*	*9.7*	*14.6*	3.07 (1.3)	(2.70, 3.58)
Distance to the nearest health facility	12	*83.3*	*16.7*	*0*	3.17 (.72)	(2.75, 3.57)
	183					

*p=0.05, **p<0.01, ***p<0.001

+21 cases missing

Results suggest that men who cited culture/religion and health as the main reasons for not choosing circumcision were less likely to seek circumcision in the future (Table 4 and Figure 8). Those who cited fear of pain and need for more information were 40% to 60% percent likely to choose circumcision if individual conditions are met. Results also suggest those who cited lack of time off from work, distance to the nearest clinic, and embarrassment were more likely to seek circumcision in the future. Respondents who cited embarrassment as the main reason for not choosing circumcision were less likely to seek circumcision services if the provider was female (Figure 8).

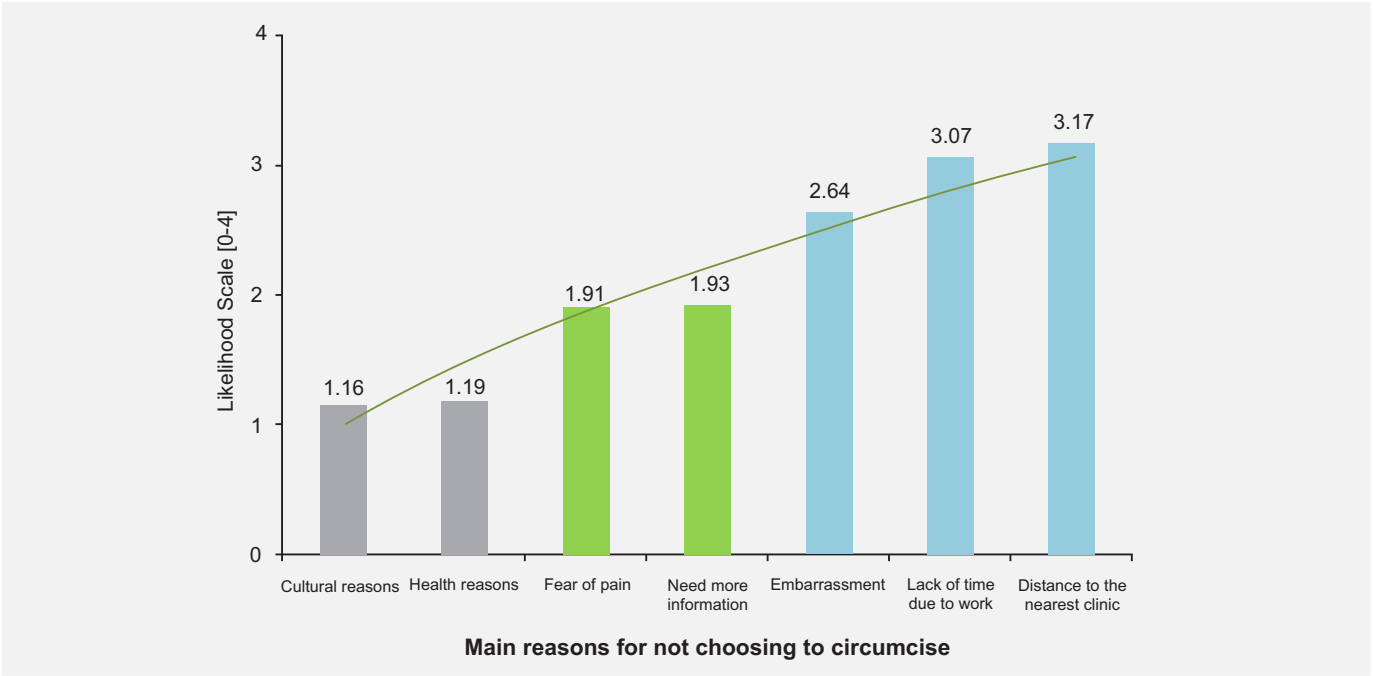

Figure 4: Mean distribution of the likelihood to circumcise aggregated by reasons for not choosing circumcision

Results suggest that 66.7 percent of respondents who had not been circumcised would seek circumcision services regardless of having female service providers while 33.3 percent would prefer male service providers.

PREVALENCE OF HIV TESTING CULTURE

The study asked respondents series of question about HIV, including testing history, reasons for testing or not testing, and the likelihood of testing in the next three months. Data suggest nine in every ten men who took part in this study had tested for HIV (Table 5). Most of the men who tested for HIV sought services within the last 12 months as of December 2015, and the remainder had tested more than 12 months past as of December 2015. The average number of years since respondents tested for HIV in this group was *M =1.35 years*, *±2.11, 95% CI: 1.12, 1.62*. The average number of years since fathers tested (as of December 2015) was significantly different than the new expecting fathers *(1.28 ± 2.04, 95% CI: 1.03, 1.54 vs. 2.83 ±1.64, 95% CI: 1.64, 4.39), F (1, 298) = 9.12, p=0.003.*

Table 5:		
Self-reported HIV testing history among the respondent population of fathers and expecting fathers in Kgatleng and Kweneng West (N=320)		
Exploratory variable	Number *(%)*	95% CI
Tested for HIV?		
Yes	299 (93.4)	(90.2, 95.7)
No	21 (6.6)	(4.3, 9.8)
When? (n = 299)		
= 12 months as of Dec 2015	187 (62.5)	(56.9,67.8)
>12 months–24 months ago	64 (21.4)	(17.1, 26.4)
More than 24 months ago	48 (16.1)	(12.3, 20.6)
Mean years since the last HIV testing	1.35(±2.11)	(1.12, 1.61)
Reasons for getting Tested (n = 116)		
Know my status	252 (84.3)	(79.7, 88.0)
Partner request	48 (16.1)	(12.3, 20.6)
Had been sick	31 (10.4)	(7.4, 14.3)
Had sex without protection/unfaithful	26 (8.7)	(6.0, 12.4)
Encouraged by friends	5 (1.7)	(0.7, 3.9)
Preparing for marriage	4 (1.3)	(0.5, 3.4)
During HIV campaign	4 (1.3)	(0.5, 3.4)
Reasons for not testing (n = 21)		
Fear of knowing my status	15 (71.4)	(50.0, 86.2)
Low risk	3 (14.3)	(5.0, 34.6)
No need to test	3 (14.3)	(5.0, 34.6)
Likelihood to test in the next three months		
Definitely Yes	5 (23.8)	(10.6, 45.1)
Probably Yes	9 (42.9)	(24.5, 63.5)
Maybe	3 (14.3)	5.0, 34.6)
Probably Not	1 (4.8)	(0.8, 22.7)
Definitely Not	3 (14.3)	(5.0, 34.6)

The primary reasons for testing included knowing one's HIV status, partner request, the respondent had been sick, and the respondent had been unfaithful to the partner. Most respondents who had not tested cited fear of knowing their status as the primary reason for not seeking out HIV testing. Results suggest that respondents who cited 'no need to test' in this study were less likely to seek HIV testing services in the next three months while those who cited fear of knowing their HIV status were more likely to seek HIV testing in the next three months. The measure of association between reasons for choosing not to test for HIV and the likelihood to test in the future was significant, $\chi^2 = (5) = 320.0, p < 0.001, \lambda = .71, p < 0.001$. Results indicate that eight of every ten men (77.8 percent, 95% CI: 73.4, 82.2) interviewed in this study knew the HIV status of their spouse or partner(s).

ACCESS TO SEXUALLY-TRANSMITTED INFECTION TREATMENT

This section asked respondents to recount the history of sexually-transmitted infections (STIs) and whether the respondents sought biomedical treatment. The study found that four of every ten men who participated in the study had either had STIs (28.7 percent) or had suspected having STIs (19.7 percent) (Figure 9).

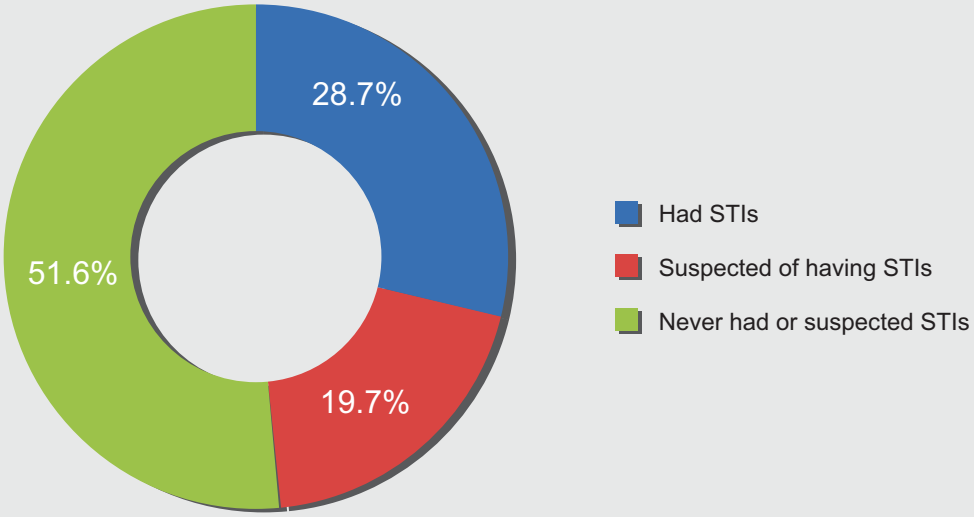

Figure 5: Percent of respondents who had or suspected having STIs (N = 320)

Most of the men (97.4 percent) who had had or suspected having STIs in their lifetime (n =155) reported seeking biomedical treatment at either public (65.6 percent) or private (34.4 percent) health facilities. Two respondents sought treatment at a traditional doctor, and the other two did not seek treatment. When the respondents were asked whether they would seek STI treatment at a facility employing only female providers, about half (53.4 percent, 95% CI: 48.0, 58.8) said they would seek treatment while the remainder said they would not.

FAMILY PLANNING AND MALE INVOLVEMENT

This section asked the respondents about their involvement in family planning, antenatal, postnatal, and child caring activities with their spouses or partners. Responding on family planning, 43.1 percent (95 CI: 37.5, 48.4) of the respondents reported that the latest or current partner pregnancies were not planned. In a question about the methods used to prevent pregnancies, 68.8 percent cited the use of male and female condoms, 26.8 percent mentioned injections, pills, intrauterine devices, and spermicide; and 4.4 percent said they used withdrawal or abstinence (Figure 10).

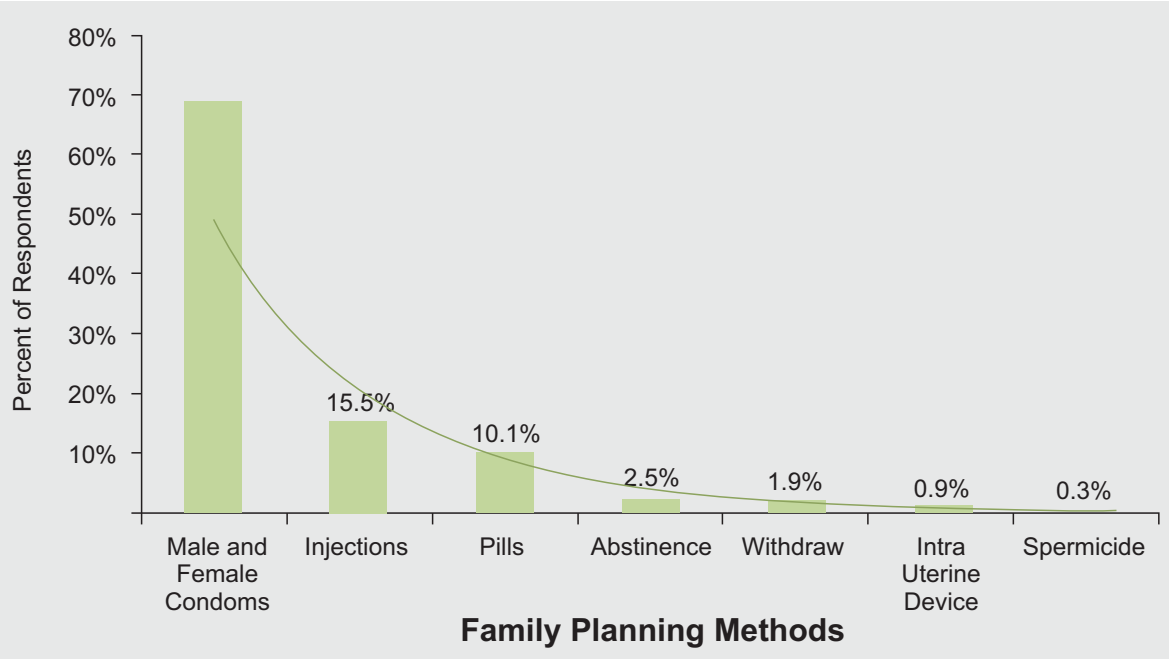

Figure 6: Family planning methods used to avoid unplanned pregnancies

Asked whether they had accompanied their spouses or partners to family planning counseling, most of the respondents said they had never accompanied partners for family planning counseling but 19.7 percent (n = 63) of the respondents had. The study found that counseling services were offered by health providers (76.2 percent by nurses or midwives and 20.6 percent by medical doctors) and respondents received family planning counseling from friends 3.2 percent of the time. When asked about their involvement in antenatal, postnatal, and child care, the study found that about six in every ten men had never been invited by their partners to antenatal or postnatal care services (Table 6). Of the men who had been invited (n = 123), 67.5 percent (n = 83) accompanied their partners. About 14 men who had not been invited by their partners took self-initiative to accompany their partners for antenatal or postnatal services. In total, 97 men in this study reported having attended antenatal or postnatal care. Results indicate that spousal/partner invitation and attending antenatal and postnatal services were significantly related, $\chi^2(1) = 130.7, p < 0.001.$ φ= .64 (95% CI: .55, .72).

Of the 97 men who accompanied spouses and partners for antenatal/postnatal care, 13.4 percent went with spouses/partners into the examination room (Table 6). Data suggest accompanying partners to antenatal/postnatal care was significantly associated with going into the examination room with spouses/partners during services, $\chi^2(1) = 114.2, p < 0.001.$, φ= .60 (95% CI: .51, .68). The study found that most fathers and new expecting fathers provided or planned to provide financial support and childcare as part of their involvement in child rearing. In this group, involvement in childrearing included activities such as changing diapers, feeding the child, and toilet training. Other activities cited in the study included helping the child with homework, playing with the child, and giving the child love and support (Table 6)

Table 6:

Self-reported respondents' involvement in SRH and child care services (N=320)

Exploratory variable	Number *(%)*	95% CI
Been invited to antenatal or postnatal services?		
Yes	123 *(38.4)*	(33.3, 43.9)
No	197 *(61.6)*	(56.1, 66.7)
Ever attended antenatal/postnatal services (n = 123)		
Yes	83 (30.3)	(25.5, 35.6)
No	123 (69.7)	(64.4, 74.5)
Ever went in the examination room during antenatal/postnatal services		
Yes	43 (13.4)	(10.1, 17.6)
No	277 (86.6)	(82.4, 89.9)
For fathers (n = 299) †		
How do you care for your child?		
Financial support	268 (89.6)	(85.7, 92.6)
Childcare	176 (58.9)	(53.2, 64.3)
Health with school work	46 (15.4)	(11.7, 19.9)
Play with child	56 (18.7)	(14.7, 23.5)
Give love and support to the child	42 (14.0)	(10.6, 18.4)
For new expecting fathers (n = 21) †		
Financial support	17 (81.0)	(60.0, 92.3)
Childcare	14 (66.7)	(45.4, 82.8)
Help with school work	6 (28.6)	(13.8, 50.8)
Take child for medical appointments	7 (33.3)	(17.2, 54.6)
†Multiple choice		

The study found a strong association between being a father and getting involved with financial support, φ = .55, 95% CI: .44, .66, p<0.001. Other measures of effect between being a father and getting involved in childcare were moderate but significant (Table 7). The study also found a significant association between being an expecting father and involvement in financial support, φ = .97 (95% CI: .90, 1.00) p<0.001. The measures of effect between being an expecting father and the involvement variables were large and significant (Table 7).

Table 7:
Measures of association and effect between fatherhood/expecting fathers and self-reported male involvement variables

	Fathers (n = 299)			
Male involvement variables	Yes (%)	No (%)	Measures of Effect ( )	
Financial support	*89.8*	*10.2****	.55	.44, .66)***
Childcare	*58.9*	*41.1****	.27	(.20, .33)**
Help with homework	*15.4*	*74.6*	.10	(07., .13)
Play with child	*18.7*	*81.3**	.11	(.08, .14)*
Love and support	*14.0*	*86.0*	.09	(.07, .11)
	Expecting father (n = 21)		Measures of Effect ( )	
Male involvement variables	Yes (%)	No (%)		
Financial support	*81.0*	*19.0****	.97	(.90, 1.00)***
Childcare	*66.7*	*33.3****	.88	(.76, .97)***
Help with homework	*28.6*	*71.4****	.57	(.34, .76)***
Take child for medical appointments	*33.3*	*66.7****	.61	(.42, .71)***
Chi-square measures of association				

**p=0.05, **p=0.01, ***p<0.001*

GENDER EQUITABLE MEN

This section asked men to recount incidences of intimate violence within their relationships and assessed the respondent's attitudes towards gender norms and social expectations on differing domestic responsibilities. The study found that 39.4 percent (n = 126, 95% CI: 34.2, 44.8) of the men interviewed in this study reported incidences of violence in the form of physical, sexual, financial, and emotional abuse. There was a significant association between intimate violence and the level of education, φ = .24 (95% CI: .15, .34) p<0.001. The study did not find evidence of significant association between intimate violence and respondent's age, fatherhood status, occupation, or residential district(s). However, respondents with secondary and tertiary education were more likely to report incidences of intimate violence than respondents with primary and no formal education (Figure 7).

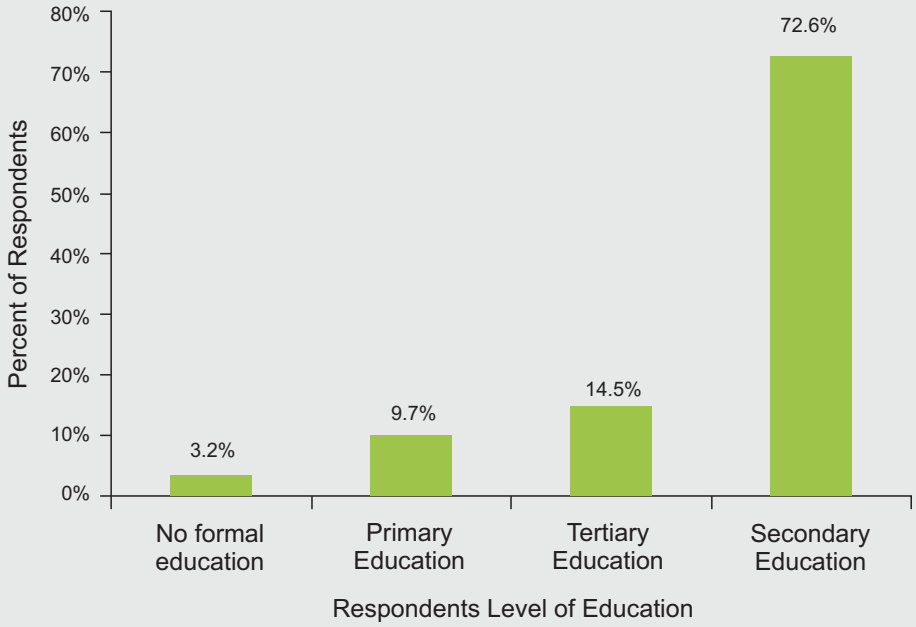

Figure 7: Self-reported incidence of violence by the level of education

Measures of men's attitudes towards gender norms and social expectations on differing gender responsibilities suggest six in every ten men had moderate support for reducing gender-based violence and promoting gender equality for domestic responsibilities while 2.5 percent supported violence and did not hold supportive views on gender equality (Table 8). Overall, three in every ten men interviewed had high support for reducing intimate partner violence and promoting gender equality.

Table 8:

Respondents' propensity towards gender norms and domestic chores (N =320)

Men's Attitudes						
Gender equitable domains	Low Propensity (%)	Moderate Propensity (%)	High Propensity (%)	Mean (SD)	95% CI	
Gender violence	*10.3*	*65.3*	*24.4*	11.4 (±2.38)	11.1	11. 7
Domestic chores	*3.1*	*65.3*	*31.6*	14.6 (±2.30)	14.4	14.9
GEM scale	*2.5*	*68.1*	*29.4*	26.0 (±3.87)	25.6	26.4

However, individual item analysis of gender-based domain items suggests that four in every ten men in the study (42 percent, n = 134) agreed with the statement: "when a woman is raped, she usually did something careless to put herself in that situation." Overall, the percent of men who had a propensity towards violence against women was 10.3 percent, and the percent of men who support inequalities in social responsibilities based on gender was 3.1 percent. There was no statistical difference between respondent's propensity towards violence or gender inequality between fathers and expecting fathers.

KNOWLEDGE-ACTION GAP ANALYSIS

One of the main objectives of this study was to assess whether respondents' knowledge of SRH related services was a motivating factor to take positive health action to use SRH services at baseline. The study assumed that fathers who knew SRH were more likely to become active partners to their spouses in using SRH services. The study set knowledge of SRH as a dependent variable (Know SRH = 1, Do not know SRH = 0). The predictor variables were action-based SRH services including safe male circumcision (Yes = 1, No = 0), HIV testing (Yes = 1, No = 0), knowledge of partner HIV status (Yes = 1, No = 0), planned current / last pregnancy (Yes = 1, No = 0), invited to antenatal/postnatal care (Yes = 1, No = 0), ever accompanied spouse/partner to antenatal or postnatal care (Yes = 1, No = 0), went in the examination room with spouse/partner (Yes = 1, No = 0), incidents of intimate violence (Yes = 1, No = 0), mean score of gender equitable men scale.

The study computed several univariate binary logistic regression models one at a time to measure the effects of knowing SRH and SRH action-related seeking behaviors. The multivariate binary logistic regression model included variables from univariable models with p≤.25. The multivariate model was adjusted for age, districts, education level, occupation, and marital status. At baseline, the multivariate binary logistic regression modeling results suggest that knowing SRH at baseline had no significant effects that translated into SRH action-related health seeking behaviors. For example, knowing about SRH did not translate to safe male circumcision, HIV testing, or family planning (Table 9). The study also found that knowing SRH did not prevent respondents from engaging in intimate partner violence OR adj. = 1.70, 95% CI: 1.04, 2.80, p<0.05 (Table 9).

Table 9

Analysis of whether knowledge of SRH resulted in health-associated actions in the study population (N = 320)

	Know about SRH		Binary Logistic Regression					
	Yes (N =175)	No (N=145)	Crude OR	95% CI		Adjusted OR	95% CI	
SRH Health Services	%	%						
Been circumcised?								
Yes	35.4	37.2						
No	64.6	62.8	.93	.59	1.46	.93	.57	1.52
Tested for HIV?								
Yes	94.3	92.4						
No	5.7	7.6	1.35	.56	3.29	.85	.32	2.31
Know partner HIV status?								
Yes	80.0	75.2						
No	20.0	24.8	1.32	.78	2.24	1.32	.73	2.37
Planned current/latest pregnancy?								
Yes	59.4	53.8						
No	40.6	46.2	1.26	.81	1.96	1.03	.63	1.70
Ever accompanied partner to FP counseling?								
Yes	35	28						
No	140	117	1.05	.60	1.82	.89	.46	1.70
Has partner invited you to ANC?								
Yes	40.0	36.6						
No	60.0	63.4	1.16	.74	1.82	1.17	.62	2.22
Attended ANC during the current/last pregnancy?								
Yes	31.4	29.0						
No	68.6	71.0	1.12	.70	1.82	1.07	.50	2.33
Went in the examination room?								
Yes	13.1	13.8						
No	86.9	86.2	.95	50	1.80	.77	.32	1.85
Experience violent incidents in your relationship?								
Yes	44.6	33.1						
No	55.4	66.9	1.63	1.03	2.57*	1.70	1.04	2.80*

*p=0.05, **p<0.01, ***p<0.001

Multivariate binary logistic model fit:

Adjusted odds ratios were controlled for age, residential districts, education, occupation, and marital status

DISCUSSION

There is growing evidence that involving men in SRH has health benefits for women and men, as well as their children. However, in many sub-Saharan African countries, few men are involved in issues relating to reproductive health, and most do not use SRH services even when they have easy access to those services (Kabagenyi, Jennings, Reid, et al. 2014; Sternberg & Hubley, 2004). This baseline study examined fathers' and expecting fathers' knowledge of SRH and use of SRH services. The study also investigated the effects of SRH knowledge on the knowledge-to-action health seeking behaviors and men's attitudes towards gender equality and gender-based violence.

THE DEMOGRAPHIC PROFILE OF FATHERS/EXPECTING FATHERS

The mean age of the respondents who took part in this study was M age = 31.9 ± 8.1, suggesting a relatively young group of fathers and expecting fathers. Close to half (46.3 percent) were in the 15–29 age group and nearly half (48.0 percent) did not have fulltime employment. Most of the fathers and expecting fathers (70.0 percent) had secondary school education and four in every ten of the fathers and expecting fathers earned a monthly wage of ≤BWP 1,000 (US$ 90.97). Another four in every ten of the fathers/expecting fathers earned about ≤BWP 2,500 (US$227.44) a month. Most of the fathers and expecting fathers were not married and did not stay with the mothers or expecting mothers of their children.

The demographic profile of men (fathers and expecting fathers) observed in this study is consistent with the demographic distribution of men based on the 2011 population and housing census. For example, the distribution of men aged 15–29 and 30–46 (at 46.3 percent each) is close to the national census distribution of men in Botswana at 49.0 percent and 49.7 percent, respectively (Gwebu, Baakile, & Mphetolong, 2014). The marital status observed in this study mirrors that of the national population pattern where most of the men had never married (Kubanji, 2014) despite being fathers. The mean number of children per father in this study compared to the national trend is similar, reflecting smaller household size (Kubanji, 2014).

SEXUAL HISTORIES: MULTIPLE CONCURRENCY AND SEXUAL LIFETIME

PARTNERSHIPS

The self-reported number of lifetime sexual partners in this relatively young cohort of men was high, with almost half (48.0 percent) reporting having had ≥six lifetime sexual partners. The study also found evidence of concurrency partnership in 12.5 percent of the respondents who reported two or more sexual partners three months before the interview. Results indicate that respondents aged 30–44 years reported a high number of lifetime sexual partners and multiple concurrency partnerships in this cohort. These results suggest a possible high social network of sexual partners and concurrency partnership among fathers and expecting fathers in the project areas. The high number of lifetime sexual partners and multiple sexual concurrencies in high HIV prevalence countries are associated with high HIV and other reproductive tract infections (Mishra, Thaddeus, Kafuko, & Cross, 2009; Tanser, Barnighausen, Hund, Garnet, McGrath, Newell, 2011). The prevalence of HIV in Botswana is relatively high in men aged 30–44 years ranging from 33.9 to 42.0 percent (NACA, BAISIV 2013, p. 4–5), suggesting the sexual histories found in this study correlate with the national HIV risk pattern. Thus, fathers and expecting fathers remain susceptible to HIV and reproductive tract infections despite extensive SRH investments made in Botswana over the last three decades.

KNOWLEDGE OF SRH AND MALE INVOLVEMENT

The current results show that about half of men interviewed in this study (54.7 percent) knew and provided accurate examples of services that constitute SRH. However, the study found a huge disparity between knowing SRH and being involved in SRH services, including family planning, pre- and post-pregnancy counselling; and accompanying spouses/partners to antenatal, postnatal and child care services. Results show that only 38.4 percent of mothers/partners had invited their spouses/partners to antenatal/postnatal services. Of the men invited, about two-thirds joined their spouses/partners to SRH services, and only one in every ten among them accompanied spouses/partners in the examination room. The results suggest that when compared with expecting fathers (older men), fathers viewed financial support as their main responsibility rather than other childcare responsibilities ($\varphi = .55$, $p<001$). Conversely, expecting fathers (younger men) viewed financial support in addition to other childcare responsibilities as a part of being a father ($\varphi = 0.61$ to $.97$, $p<0.001$).

The results of this study suggest fathers are inadequately involved in SRH services, despite some (especially young fathers) being open and willing to join their partners in SRH. The results also suggest that women in this study probably do not involve or engage their male partners in participating in SRH. According to respondents, only a quarter of mothers/expecting mothers ever asked their partners to accompany them to SRH services. The findings suggest socio-cultural and patriarchal gender socialization still play a part in the lack of partnership in SRH between men and women. According to gender studies conducted in Botswana, girls learn early in life that SRH services are the responsibilities of women (Sebone, 2009). Kang'ethe (2009) noted that most men in Botswana ignore their responsibilities in child rearing because of patriarchal expectations and accepted gender norms.

SRH SERVICE UTILIZATION

The study found high HIV testing culture largely motivated men to know their status. The reported number of years since respondents' last test was 1.35 years, with about 60 percent reporting to have sought HIV testing 12 months before the interview. Among those who never tested for HIV, one of the main reasons for not testing was fear of finding out that they were HIV positive. The study also found that four in every ten men in this study had been circumcised, with the majority reporting being circumcised following the government circumcision program in 2009. The majority of people who had not tested cited fear of pain, lack of time off from work, the need for more information, health reasons (being sick), cultural/religious reasons, and embarrassment. Results suggest that men who cited health reasons, culture, or religious reasons for not seeking circumcision had a 68 percent probability of never seek circumcision. Conversely, men who cited no time off from work and distance to the nearest facility had a more than 75 percent probability of seeking circumcision in the future. The study also found that about 40 to 50 percent of men who cited fear of pain, embarrassment, and the need more information were more likely to seek circumcision in the future.

HIV testing and counseling accompanied with individualized risk reduction culture are the paramount and critical strategies for improving the reproductive health of men and women. HIV testing and counseling are critical entry points for treatment of the infected population and plan for future (SADC, n.d.) treatment and prevention. While the number of men who had tested for HIV was high (about 93 percent), the proportion of HIV testing in the last 12 months (63 percent, 95% CI: 57 percent to 68 percent) falls close to the estimated national HIV testing at 70 percent in 2014 (Ministry of Health, 2014). HIV testing culture measured in this study suggests that fathers/expecting fathers decide to test for HIV to know their status, because of partner influence, and as a result of risky sexual behaviors. The findings also suggest access to and availability of HIV testing services within the communities in which they live influence men to seek HIV testing services. The availability of antiretroviral therapy free of charge to those diagnosed with HIV may also be a motivating factor given the country's aggressive HIV and AIDS response in the last three decades.

Studies conducted in other HIV endemic countries also found that high HIV testing correlated with high sexual behaviors and availability of treatment services. Kisumu, Kenya Kabiru, Luke, Izugbara et al. (2010) found that individuals who engaged in risky sexual behaviors tended to test for HIV more than individuals who did not feel they were at risk for HIV. In a study of men who have sex with other men in Mozambique, Horth, Cummings, Young et al. (2015) found that high-risk sexual behaviors (having anal transactional sex) were associated with increased odds of HIV testing. Horth et al. (2015) also found that availability of antiretroviral therapy among respondents significantly increased the odds of seeking HIV testing. In Thailand, HIV testing among youth was associated with not using condoms, and having more than two sexual partners and easy access to HIV testing services were correlated with HIV testing (Masumari, Tangmunkongvorakul, srithanaviboonchai et al., 2016).

The circumcision rate among fathers/expecting fathers who took part in the study (36.3 percent, 95% CI: 31.2, 41.7) was consistent with the national circumcision rate (41.7, i.e., 160,685 out of 385,000) as of 30 November 2015 around the time data for this study were collected. The reasons for not seeking circumcision in this study are consistent with findings from other studies on male circumcision uptake conducted in Botswana. Sebone, Magowe, Busang et al. (2013) found that the main barriers of medical male circumcision were associated with socio-cultural factors, lack of accurate information or knowledge about circumcision, and structural barriers. Sebone and others found that fear of pain due to misconception and lack of information similar to reasons cited in this study. The study also found that respondents felt uncomfortable with female surgeons consistent with embarrassment reasons cited in this study

GENDER-BASED VIOLENCE AND GENDER EQUALITY

Results indicate a 40 percent incidence of intimate partner violence in this cohort of fathers in the form of physical, sexual, emotional, and financial violence. Measures of attitudes towards gender-based violence and gender equality based on the Gender Equitable Men (GEM) Scale suggest that 24 percent and 32 percent, respectively, of fathers/expecting fathers had a high propensity for supporting intimate violence prevention and improving equal sharing of domestic chores. The study found that seven in every ten fathers/expecting fathers interviewed had moderate supportive attitudes towards reducing gender-based violence and promoting gender equality.

A gender-based violence indicator study in Botswana (Machisa and van Dorp, 2012) found that 44.0 percent of men admitted to perpetrating violence against women, a number close to the incidences of violence reported in this study (assuming a reduction of intimate violence incidences at a national level overtime). With about seven in every ten fathers/expecting fathers reporting moderate propensity in supporting violence reduction and gender equality, it is fair to deduce that these men may at one point in their lives engage in violent behaviour or shun equality responsibilities.

KNOWLEDGE-TO-ACTION GAP ANALYSIS

Findings in this study suggest respondents' knowledge about SRH compared with respondents who did not know SRH did not differ significantly with regards to the SRH seeking behaviors. In other words, knowledge about SRH did not translate to the use of HIV testing and counseling services, male circumcision, access to FP, and/or male involvement in SRH services. The current study also suggests knowing SRH did not prevent fathers/expecting fathers from intimate partner violence or promoted gender equality.
The translation of knowledge to health-seeking behaviors found in this study was similar to studies conducted elsewhere. In Ethiopia, Abajobir and Seme (2014) found that knowing SRH among adolescents did not translate to the use of SRH services, including family planning and STI treatment. Abajobir and Seme (2014) found that of the two-thirds of 415 adolescents who knew SRH only one-fifth of the adolescents accessed SRH services. Other SRH studies in eastern Zambia found similar results in the general populations (Gordon and Phiri, 2000).

This study and other studies underlie that acquisition of SRH knowledge alone does not often translate to sexual behavior change and better health outcomes. Lessons from field studies recommend participatory methods that support and enable segments of the population to participate actively and get involved in identifying and discussing interventions that they feel are relevant and appropriate (Gordon and Phiri, 2000). Community-based programs such as Fathers' Groups in MenCare are participatory models of service delivery that assist men as they identify their SRH priorities and take decisive actions such as involvement in SRH. Such programs also facilitate men to engage and participate in equal sharing of responsibilities of caring for their children. Global studies found that programs that were successful in attracting male clients offered targeted education to help men articulate their needs and talk about their doubts before services. The knowledge-to-action gap is one of the major challenges in health service delivery in many parts of the world. Often, the difference between acquisition of health knowledge does not often correlate with health-seeking behaviors and expected health benefits (Davison, Ndumbe-Eyoh, and Clement, 2015). Davison et al. (2015) suggest the gap between knowledge and action is a policy concern because it pertains to what is not being done to improve health equity.

[1]The Ministry of Health Safe Male Circumcision Program statistics as of November 30, 2015.

STUDY LIMITATION

This data is based on project data derived from two pre-determined rural districts of Botswana. The data are therefore not nationally representative of fathers and expecting fathers in Botswana. While the sample population recruitment applied multiple community mobilization methods including door-to-door, kgotla meetings, health facilities, workplace outreach, and a football match; it was non-probabilistic. The results of this study can therefore not be generalized to the population of fathers and expecting fathers in the country. Program developers must be cognizant of this limitation when using the results in other parts of the country. However, the consistency of the results of national data and studies conducted in other parts of Botswana suggest the results paint an accurate picture of the current state of male involvement and utilization of SRH services in Botswana among fathers.
It is recommended that organizations and donors involved in development work consider investing adequate resources for research where pre-determined projects incorporate knowledge-to-action conceptual designs or implementation science programming. The research investigators encourage incorporation of high evidence research methods such as cluster randomized controlled trials and quasi-experimental designs that collect data beyond pre-determined areas alone. Such research would fill the gap in nationally representative data and weak study designs common in development work.

STUDY IMPLICATIONS

Poor sexual reproductive health compromises economic productivity when the workforce is ill as a result of reproductive tract infections (such as HIV), their adverse health outcomes (such as cancers), and opportunistic infections (such as TB). The adverse health outcomes of the reproductive system, such as cervical cancer, are becoming one of the most serious challenges of women, particularly those living with HIV. Like cervical cancer, prostate cancer is more common in HIV-positive men and is associated with age and duration of HIV infection (Silberstein, Dows, Latkin, & Kane, 2009). Ignoring the SRH needs of both men and women can have serious effects on the work and productivity of organizations, with smaller organizations being particularly vulnerable. An early study in South Africa found that HIV was one of the major factors that caused nearly 80% of new small-to-medium enterprises to fail each year because of staff turnover and low productivity (Van Eeden, Viviers, & Venter, 2003).

SRH contributes to reducing STIs, HIV, and unintended pregnancy. The United Nations Educational and Scientific Cultural Organizations (UNESCO) states that education on sexuality and health has a positive impact on safer sexual behaviors and has the potential to delay sexual debut among young people (UNESCO, 2009). UNAIDS and the African Union also suggest that SRH increases condom use and voluntary HIV testing and reduces pregnancy among adolescent girls. A comprehensive age-appropriate participatory SRH education such as Fathers' Group may offer one of the key approaches to fast track male involvement in SRH among the changing demographic composition of unmarried fathers and expecting fathers in Botswana. Fathers' Groups have the potential to succeed because they are premised on addressing gender, power relations, and human rights for both women and men to improve SRH outcomes. Studies suggest that integrating content on gender and rights makes SRH more effective (UNFPA, 2014a).

CONCLUSION

Sexual and reproductive health is the shared responsibility of both men and women. Growing evidence suggests that involving men in SRH improves health benefits for both women and men, as well as their children. Thus, the current results underscore the urgent need to develop data-driven, sustainable, and context-relevant male involvement interventions in Botswana.

The findings of this study suggest that fathers and expecting fathers remain at risk of reproductive tract infections. The high number of lifetime sexual partners and evidence of multiple concurrency partnerships in this relatively young cohort of men are the drivers of HIV and STI transmission. There is also the lack of accurate knowledge about SRH among five in every ten men who took part in the study. The baseline study highlighted the lack of protective effects of the current knowledge of SRH on service utilization. The study identified some barriers and enabling factors that may be used to inform the design of future male involvement projects.

While Botswana has clear policies, policy guidelines, standards, and norms for mobilizing male involvement in SRH, male involvement, engagement, and participation in SRH remains limited. There is a need to design evidence-informed programs integrated into implementation science with continuous monitoring and planning to identify effective interventions. There is, therefore, an urgent need for participatory community-based programs such as MenCare that encourage communication between men and women, while also encouraging active involvement of both sexes in SRH decisions. Incorporating SRH services such as HIV counseling and testing and safe male circumcision into Fathers' Groups/MenCare Projects is particularly important to ensure safe and satisfying sexual lives free from reproductive tract infections for both men and women. The MenCare Project can also create a social platform to remove the deeply ingrained socio-cultural and patriarchal gender norm biases while respecting some elements of the socio-cultural norms such as 'Bogwera'.

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