**INTRODUCTION**
Health services intended for sexually active adolescents must address the risks both of pregnancy and transmission of HIV and other sexually transmitted infections (STIs). A key strategy is to promote dual protection: behaviors that provide simultaneous protection against the dual risks associated with sexual intercourse.

Health service providers can promote correct and consistent condom use as one option for achieving dual protection. Providers can also encourage use of condoms for HIV/STI protection together with a more effective family planning method, such as pills or injectables, for extra contraceptive protection. Alternatively, providers can encourage behavioral strategies such as abstinence or mutual monogamy by partners who know they are uninfected and who are using highly effective contraception.

Notwithstanding the range of prevention options, evidence of effective strategies for promoting dual protection either to youth or adults is sparse. Evidence is needed to shape health services that successfully promote dual protection behaviors to sexually active adolescents.

**METHODS**
The research team applied three qualitative techniques, each with a separate group of participants recruited within Dar es Salaam, Tanzania.

**Participatory ethnographic and evaluation research (PEER)**
The study team applied the ethnographic technique known as PEER1 —participatory ethnographic and evaluation research—to conduct qualitative interviews with adolescents. The team applied this method to explore young people’s beliefs, perceptions, and practices that influence the risks of HIV and other STIs and pregnancy. They also explored the obstacles adolescents face in adopting safer sexual behaviors and identified the types of support that could potentially help adolescents to adopt dual protection behaviors.

Ten female and ten male never-married, secondary-school students between the ages of 16 and 19 were recruited from three districts in Dar es Salaam Region to serve as “peer researchers.” After attending a four-day participatory training workshop, each peer researcher interviewed three friends on three separate occasions. Each interview, supported by a question guide, focused on one of three topics: (1) relationships, (2) being happy and healthy in a romantic relationship, and (3) support and information for people in romantic relationships. The peer researchers asked participants to keep their responses impersonal and describe what other people like them do or say, without mentioning anyone by name. The peer researchers met frequently with study supervisors to report their findings. Following the data-collection period, peer researchers...
participated in a one-day workshop to conduct their own data analysis. This permitted the adolescent participants to work as a group to clarify and interpret the interview narratives and identify the most important issues emerging from them. An Options consultant with expertise in the PEER methodology also conducted a content analysis of the interview debriefing documents to derive predominant themes and messages relevant to the study’s objectives.

Dual protection counseling messages

1. Consistent and correct use of condoms can be very effective for contraception.
2. Condoms are the only contraceptive method that also protects against STIs.
3. Using condoms AND another family planning method offers more protection from pregnancy than condoms alone.
4. Any contraceptive method can be used if an individual and his or her partner are uninfected and mutually monogamous.
5. There are types of sexual intimacy that can be satisfying yet do not spread STIs/HIV/AIDS.
6. Delaying or avoiding sexual activity (abstinence) can be a good choice for some adolescents or unmarried adults.

Cognitive interviews
The research team consisting of staff from FHI and MUHAS conducted cognitive interviews to seek adolescents’ input regarding the clarity and usefulness of dual protection counseling messages. The messages (listed in the box above) were derived from counseling materials promoted by the World Health Organization. In cognitive interviews, the respondents are asked to “think aloud,” verbalizing their thought processes as they attempt to answer questions or complete tasks. Respondents can also explain what a question—or in this case, a message—means to them. Sixteen participants (eight male; eight female) between the ages of 16 and 19 were recruited from among adolescent clients seeking reproductive health or HIV/STI services. Interviewed individually, participants were guided through a series of questions to assess their understanding of the messages. Participants were also asked questions to explore their perspectives regarding the applicability of the prevention messages to the lives of adolescents they know. Conducted in Swahili and tape recorded, the interviews were transcribed and then translated into English. Textual analysis was completed using NVivo 8, a software program for computer-assisted qualitative data analysis.

In-depth interviews with providers
The research team conducted individual in-depth interviews with 22 male and female providers of family planning, STI, and HIV counseling and testing services for young people. The purpose was to determine the types of dual protection services that health facilities are already offering adolescents. The researchers also intended to identify forms of support—training, materials, and complementary community-based initiatives—that would enable providers to deliver maximally effective dual-protection counseling to their adolescent clients. Again, interviews were conducted in Swahili, transcribed and translated into English, and analyzed using NVivo 8.

RESULTS
Application of the different qualitative techniques yielded insights from three different perspectives on aspects of the culture of adolescents and on the attitudes and resources of providers. The sections below summarize the findings of each methodological approach. Together these findings suggest an agenda for strengthening efforts to promote the practice of dual protection by adolescents.

Findings from the PEER study
Young people reported that there is enormous peer pressure on teenagers to have a boyfriend or girlfriend. Once a relationship begins, a boy is pushed to buy his girlfriend presents to preserve it. The boy sees acceptance of these presents as the girl’s preliminary agreement to have sex with him. Thus, adolescents enter into a cycle of transactions and obligations that make sexual intercourse hard to avoid. Sexual intercourse reportedly occurs typically from two weeks to two months after the start of a relationship. The PEER interviews revealed that many boys and girls either have multiple concurrent partners (who are classified into typologies according to the nature of the relationship and the levels of affection involved) or they engage in short, serially monogamous relationships. Sexual relationships are perceived, particularly by girls, as having immediate benefits but long-term
negative consequences: unintended pregnancy, infection with HIV and other STIs, rejection from the family home, and school expulsion. The consequence girls fear most is pregnancy. Boys tend to view adolescent relationships more positively, describing them as an opportunity to experience sex with a number of partners before the formal commitment of marriage. Boys do fear the consequences of their girlfriends becoming pregnant but have several options to escape their responsibility: help pay for an abortion, run away from home, or deny paternity.

Adolescent participants reported that their peers view condoms as highly effective for the prevention of pregnancy but ineffective in preventing HIV transmission. One reason they believe this is that they see that the HIV epidemic has continued largely unabated despite intense condom promotion as part of HIV prevention campaigns.

Although girls are willing to accept condoms for contraception, boys have a strong dislike for the method. Their superior power in sexual relationships often allows them to have sex without using condoms. Adolescents are aware of the risks posed by unprotected sex, but many also subscribe to the false notion that they can avoid HIV by avoiding such behavior as having “too many” sexual partners or having unprotected intercourse on the fertile days of the menstrual cycle. Informal methods of assessing a partner’s risk are common but based on inaccurate or inadequate information. Condom use is further hampered by the idea that using the method signifies infidelity or lack of trust. Adolescents do not generally perceive the use of condoms as an expression of love and care for a sexual partner. Whereas sex is viewed as a means of strengthening a romantic relationship, suggesting condom use is viewed as weakening a relationship.

Adolescents are aware of other modern contraceptive methods—for example, pills and injectables—and some said they knew girls who use pills. However, adolescents reported concerns that using hormonal methods could have long-term health consequences, such as infertility and cancer. Adolescents reportedly try to prevent pregnancies by practicing withdrawal or abstaining from sex on the days girls are believed to be most fertile. What they know about fertility in relation to the menstrual cycle varies and is largely inaccurate.

Interview participants shared ideas on the support that could potentially help adolescents adopt dual protection behaviors. Many spoke very favorably about their experiences with sexual and reproductive health services. Private and specialist facilities and those run by nongovernmental organizations (NGOs) are regarded more highly than public facilities. Many adolescents favor going to private dispensaries and pharmacies where staff are able to spend more time with them. Young staff, quiet facilities, and privacy are all important to adolescents. They complained about long waiting times owing to staff shortages and service providers who expressed disapproval and criticism. Among adolescents who do not use health services, a high level of anxiety about the care they will receive keeps them away.

Adolescents are familiar with current HIV/AIDS prevention campaigns but described their impact on behavior as low. In particular, they perceive many messages about condoms as focusing on the negative consequences of failing to use a condom. They felt that combining these negative messages with positive ones about the potential benefits of using a condom would be more effective. They also commented on messages that focus on protecting oneself. They felt this narrow approach interfered with a view of the use of condoms as part of loving and caring relationships.

**Findings from the cognitive interviews**

Adolescents participating in the cognitive interviews demonstrated clear understanding of the dual risks associated with sexual activity. With probing, all 16 were able to explain the message that condoms provide protection against both pregnancy and STI/HIV transmission. The contraceptive protection afforded by condoms appeared to be among the most widely understood concepts, with 12 participants able to explain it. Eleven participants could explain the concept of correct use of condoms. Consistent use of condoms was less well understood, with only nine of the 16 participants being able to explain the concept accurately.

Adolescents demonstrated far less understanding of the dual protection option of dual method use. Half of the adolescents interviewed said explicitly that condoms should not be used at the same time as another family planning method. Similarly, adolescents struggled in interviews with the message, “Any contraceptive method can be used if both partners are uninfected and mutually faithful.” Some had a faulty understanding of the concepts “mutually faithful” and “uninfected,” and a few participants thought the terms are synonymous.
When asked about their understanding of sexual intimacy that does not involve intercourse, only two of the 16 participants spontaneously mentioned the intended meaning of mutual masturbation. Misconceptions included references to anal sex, oral sex, and homosexual acts. Three of the eight male participants admitted they did not know any expressions of sexual intimacy other than vaginal intercourse. Six adolescents (two females and four males) interpreted the message to mean self-masturbation. Several of the adolescents thought this message referred to emotional relationships that do not involve physical intimacy.

Finally, adolescents struggled with the message, “Delaying or avoiding sexual activity can be a good choice for some adolescents or unmarried adults.” When first presented with this message, only half were able to explain it. Some of the adolescents misinterpreted this message to mean avoid “unsafe” or “unfaithful” sex rather than all sexual activity. When asked, “Can a young woman actually choose to avoid sex?” two female and three male respondents said she could not.

**Findings from the in-depth interviews with providers**

Although only half of the providers were familiar with the term “dual protection” and only six were able to define it correctly, all 22 appeared to embrace their responsibility to counsel their adolescent clients on the risks of pregnancy and STI/HIV transmission and on ways to prevent both of these outcomes. When providers were asked how their adolescent clients perceived the two risks, the majority of providers (16) reported that girls are most concerned about the risk of unwanted pregnancy. More than half of the providers reported that boys are most concerned about the risk of STI.

The providers viewed condom use as an essential prevention strategy. Asked if they would recommend condoms to an unmarried adolescent girl who requested a family planning method but who also indicated she was at risk of STI, all 22 providers responded affirmatively. Only half of the providers reported that they would recommend condoms plus another contraceptive method to adolescent clients.

Seven providers said they would ever recommend the use of a hormonal contraceptive method alone to an unmarried adolescent female client. Providers said it is difficult for adolescents to be sure that their partners are monogamous and uninfected. Providers also expressed misgivings about the appropriateness of hormonal methods for adolescents; a few expressed the misperception that use of hormonal methods by girls can make them infertile. Four providers mentioned that adolescents using condoms plus another method might be less conscientious about using condoms and increase their risk of acquiring STI/HIV. These providers reasoned that equipping girls whose primary concern is avoiding pregnancy with hormonal methods would strip away their motivation to insist on condoms, as well.

All but one provider reported talking to their sexually active adolescent clients about abstaining from sex. They reported describing the benefits of abstaining to their clients and discussing personal strategies for abstaining—for example, staying busy with sports or other activities. At the same time, their counseling is guided by the knowledge that many of their clients engage in risky sexual behaviors. Seventeen of the 22 providers reported that their adolescent female clients have concurrent relationships, and 10 reported that their adolescent male clients have concurrent relationships. All but two providers reported having female clients in sexual relationships with older partners, and eight providers reported having male clients with older partners. Nearly all providers said they had some female clients who engage in transactional sex, either for basic necessities or luxury items. Four providers reported having male clients similarly engaged in transactional sex, generally with older women. The six providers who mentioned clients who expressed love for their partners noted that these relationships are typically with age-mates, and that some of these clients have concurrent older partners who provide money or goods in exchange for sex.

Clinic-based providers offered constructive suggestions for strengthening promotion of dual protection to young people. They expressed a wish for continual training to keep themselves informed. Asked about material support, providers most often mentioned the need for brochures. Providers also recommended strategies for community support. Every provider reported that media messages—radio, television, and newspaper campaigns related to safe sexual practices—could have a positive impact on adolescent behaviors. More than half of the
providers mentioned the value of educating communities about healthy sexual practices and dual protection through outreach counseling. They advocated training peer educators to work in communities. When asked who, other than health care providers, should talk to adolescents about safe sexual practices and dual protection, providers responded passionately that parents, teachers, and religious leaders should speak openly with adolescents about these matters. At the same time, more than half of the providers commented that many parents do not know how to lead a discussion on sex with their children and need instruction and support. The point that providers emphasized most strongly was this: Education on sexual health must come from many sources, not just one or two, for adolescents to choose healthy sexual practices.

CONCLUSIONS
This investigation provides clear indication of the urgent need for sexually active adolescents in a context such as Dar es Salaam, Tanzania to practice dual protection. Adolescents and health care providers described behaviors that place young people at alarming risk both for pregnancy and transmission of HIV and other STIs. Girls and boys alike reportedly engage in multiple concurrent sexual partnerships, intergenerational sex, and transactional sex. Adolescents reported high levels of peer pressure to conform to perceived sexual norms that largely exclude abstinence as an option. Social norms and personal preferences make it difficult for adolescents to sustain condom use.

The use of highly effective contraception such as hormonal methods is not the norm among these sexually active young people.

Adolescents have important knowledge gaps and negative biases related to dual protection, some of which are shared by health care providers. Adolescent boys and girls consider condoms to be highly effective in preventing pregnancy, but they do not have confidence that condoms can prevent HIV transmission. Adolescents and providers doubt the safety of hormonal methods for young people, and providers are skeptical of the value of promoting a contraceptive method other than condoms to young people. Neither adolescents nor providers consider dual-method use to be a viable dual-protection option.

Existing sexual and reproductive health services for adolescents provide a useful context for the promotion of dual protection, but they need strengthening. Providers appear to be highly committed to serving the dual protection needs of their adolescent clients. Based on accounts from adolescents and providers, some clinicians have been trained to offer nonjudgmental support, build rapport, and communicate with young people openly. Providers need support to deliver dual protection counseling messages that young people can easily comprehend and apply. Given the reported inconsistency of condom use, providers of adolescent sexual and reproductive health services should put greater emphasis on the use of highly effective contraceptive methods, such as pills and injectables. They appear to need training to correct misconceptions about the safety of hormonal methods for adolescents and to enhance their skills in risk-reduction counseling.

The study results suggest that clinic-based counseling is necessary but insufficient to cause sexually active young people to adopt dual protection behaviors. Adolescents need messages delivered through multiple community channels. Social support must be provided to encourage changes in behavioral norms related to abstinence, multiple partners, condom use, and power-sharing in sexual decision making. Media and other public methods of communicating with adolescents should be strengthened, with messages responding specifically to the information boys and girls need and the social challenges they face.

References
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