The aim of this study was to understand gender differences in components of condom use self-efficacy to inform the design of effective reproductive health interventions for youth. Data stem from a July to August 2000 reproductive health survey among youth aged 15-24. Gender differentials in self-efficacy are analyzed using logistic regression. Perceived ability to discuss and negotiate condom use is high for both sexes. Women are less likely than men to know correct condom use (58% vs. 80%, p<.01) but are more likely to be shy buying condoms (67% vs. 50%, p<.01). Prior experience buying and using condoms, parental support, and condom promotion affect perceived ability to correctly use condoms and shyness buying condoms. Programs aiming to increase self-efficacy in condom use should focus on increasing confidence in youth’s ability to buy condoms and to use them correctly, especially for young women. There is a need for programs that publicize and/or increase access to youth-friendly outlets and increase the acceptability of young women buying condoms.

Youth in urban Cameroon are an important target group for reproductive health programs because of their high levels of risky sexual behavior, unplanned pregnancies, and sexually transmitted diseases (Fotso et al., 1999; Meekers & Calvès, 1999; Tchupo & Tegang, 2001). Sexual risk reduction tends to be more difficult for women, as they do not use condoms in isolation but must negotiate their use with their partners. This study examines gender differentials in specific aspects of perceived condom use self-efficacy, and their determinants, with the intention of informing the design of
more effective HIV/AIDS and reproductive health interventions for urban Cameroonian youth.

Perceived self-efficacy is one of several key determinants of HIV sexual risk reduction and reproductive health (Bandura, 1977; Mantell, DiVittis, & Auerbach, 1997). Perceived self-efficacy refers to people’s judgment of their ability to organize and execute specific behaviors that are required to deal with various future situations (Bandura, 1983, 1984). These “self” beliefs about people’s capacity influence how they behave: “Expectations of personal efficacy determine whether coping behavior will be initiated, how much effort will be expended, and how long it will be sustained in the face of obstacles and adverse experiences” (Bandura, 1977: 191).

Self-efficacy in condom use—the belief that one can successfully engage in condom use—is an important mediating factor between attitudes and beliefs about reproductive health and adopting condom use. Women who lack confidence in their ability to purchase condoms and negotiate their use tend to have a higher likelihood of engaging in unprotected intercourse. These women’s low self-efficacy makes them more vulnerable to HIV infection and other reproductive health problems. Several studies have found that self-efficacy is associated with higher levels of condom use and have argued that HIV prevention programs should aim to enhance self-efficacy in the target population (e.g., Malow, Corrigan, Cunningham, West, & Pena, 1993; Soler et al., 2000).

A large body of research on Western societies shows that self-efficacy is a complex multifaceted concept and that gender differences in self-efficacy vary strongly across cultures (Parsons, Halkitis, Bumbi, & Borkowski, 2000; Soler et al., 2000). Although several African studies have also documented the effect of self-efficacy on condom use (e.g., Abraham, Rubaale, & Kipp 1995; Adih & Alexander 1999; Kamya et al., 1997; Peltzer, 2000; Reddy, Meyer-Weitz, van den Borne, & Kok, 1999; Wilson, Lavelle, Greenspan & Wilson, 1991), gender differences in self-efficacy and the obstacles to enhanced self-efficacy remain poorly understood. Such information is needed to enable programs to design strategies for improving condom use self-efficacy.

This study uses data from an adolescent reproductive health survey in urban Cameroon to enhance our understanding of these issues and to inform the design of more effective adolescent reproductive health programs.

ADOLESCENT REPRODUCTIVE HEALTH IN URBAN CAMEROON

A large body of literature illustrates that many Cameroonian youth have a tendency to engage in risky sexual behavior (Abéga et al. 1994, 1995; Calvès & Meekers, 1997; Fotso et al. 1999; Meekers & Calvès, 1997, 1999; Songué, 1986; Van Rossem & Meekers, 2000). For example, according to the 1998 Demographic and Health Survey, over a quarter of females and a sixth of males aged 15-24 reported having had their sexual debut by age 15 (Fotso et al., 1999, p. 90). The data also show that many youth, males especially, have multiple sexual partners. Specifically, 14% of unmarried females aged 15-19 and 21% of those aged 20-24 reported having at least two partners in the past year. For unmarried males, this was the case for 23% and 58%, respectively (pp. 179-180).

Data on condom use tend to show considerable variation. Several sources suggest that the percentage of urban youth who have ever used condoms is very high, exceeding 60% for youth aged 18-22 (Calvès & Meekers, 1997; Meekers & Calvès, 1999; Van Rossem & Meekers, 2000). However, these same sources indicate that reported use in the last sex act is considerably lower, at roughly 25%, suggesting that use is in-
consistent. Levels of condom use with casual partners appear to be substantially higher for males than for females.

Although there is little existing survey research on condom use self-efficacy among Cameroonian youth, qualitative data suggest that there are important gender differences in self-efficacy. Specifically, young women tend to be shy obtaining or carrying condoms, because women who do so tend to be stigmatized whereas men are not. Young girls are often embarrassed to discuss condom use with their boyfriends because they feel that they are supposed to love the boyfriends and avoid discussions that are likely to make them unhappy (Calvès, 1999).

DATA AND METHODS

This study is based on data from the 2000 Cameroon Adolescent Reproductive Health Survey, which contains information on a randomly selected sample of youth aged 15-24 living in Yaoundé and Douala, Cameroon’s two largest cities. This survey is the first wave of a three-round survey of adolescent reproductive health in urban Cameroon. Data collection was implemented by IRESCO between July 26 and August 10, 2000.

The survey was conducted using a four-stage stratified sampling design (Tchupo & Tegang, 2001). A sample size of 2,000 youth was targeted, equally distributed over the two cities. In the first phase, 12 neighborhoods (quartiers) were selected in each city, with probability of selection proportional to the estimated population of 15- to 24-year-olds. In the second stage, 30 enumeration areas were selected with probability of selection proportional to population size. In the third stage, a complete list of households with at least one eligible person was prepared, and households were randomly selected. Finally, one eligible person was randomly selected per household. Up to three attempts were made to interview the selected person. No replacements were made for respondents who were absent after three unsuccessful interview attempts.

Interviews were conducted by same-sex interviewers aged 25 or younger, who had participated in a 3-day data collection training workshop. Informed consent was obtained verbally from both the head of household and the respondents. In total, 2,096 youth were successfully interviewed. Our working sample of youth who had a regular or casual partner in the past year includes 1,102 respondents.

Table 1 shows the characteristics of the working sample. By design, roughly half of the respondents were living in Yaoundé and half in Douala. Roughly two thirds of the sample are teenagers, and about 90% of respondents have some secondary education. There are no significant gender differences in age, city of residence, level of education, or socio-economic status.

The survey questionnaire covered a wide range of reproductive health topics, including several questions about self-efficacy. For example, we asked respondents if they would feel comfortable asking their partner to use condoms. Respondents were also asked if they feel confident that they can discuss sexually transmitted diseases (STDs) and condom use with their regular partners and whether they feel confident that they can convince him or her to use condoms. Similar questions were asked for casual partners. Respondents were also asked if they would be shy purchasing condoms in a nearby shop, whether they knew how to correctly use a condom, and whether they felt confident they would be able to put a condom on in the dark. All self-efficacy indicators were coded “yes” or “no/not sure.”
We analyze gender differentials in these indicators of self-efficacy using chi-square analyses. At the multivariate level, we use logistic regression analyses to determine whether these gender differences remain significant after controlling for differences in social, demographic, and economic factors. Because social learning theory posits that social support and prior experience tend to have a large impact on self-efficacy, we also control for those. Our indicators of social support are dummy variables indicating whether the respondent believes that their parents or peers support adolescent condom use. Prior experience is measured by dummy variables indicating whether the respondent has ever used condoms, ever bought condoms, ever asked for condom use, and ever been refused condom use by a partner. Additional controls include the respondent’s perceptions about the effectiveness of condoms for family planning and for STDs, and level of exposure to condom advertising and promotion. The latter indicator measures the number of sources of exposure to advertising and promotion for social marketed Prudence condoms or for commercial condom brands (none = no exposure, low = one source, high = two or more sources).

Finally, we use logistic regression to estimate the effect of exposure to condom advertising and promotion on our self-efficacy indicators. To more clearly illustrate what these findings imply, we convert the logistic regression coefficients to adjusted proportions (using STATA’s ADJPROP procedure). Adjusted proportions are the expected proportions of respondents who have each of the aspects of self-efficacy, after controlling for differences in background variables.

RESULTS
GENDER DIFFERENCES IN CONDOM USE SELF-EFFICACY
The results presented in Table 2 show that several indicators of condom use self-efficacy have very high values for both men and women, particularly for those indicators related to discussion and negotiation of condom use. For example, over 85%
of male and female youth feel comfortable asking their partner(s) to use condoms. As the level of self-efficacy can vary according to type of partner, Table 2 also shows several partner-specific indicators. The results show that over 80% of respondents feel confident that they can discuss condom use with regular or casual partners. There are no significant gender differences for either partner type. The percentage of youth who are confident that they can actually convince their regular or casual partners to use condoms with them is significantly higher for males than females, but the difference is not large (88% vs. 82%).

Despite these apparently high levels of perceived self-efficacy in discussing and negotiating condom use, Table 2 also shows that women are significantly disadvantaged in terms of the more practical aspects of control over condom use. Young men are more likely than young women to report that they would not be shy purchasing condoms in their neighborhood (67% vs. 51%). Furthermore, only 58% of sexually active women report that they are confident that they know how to correctly use condoms, compared with 80% of men. Likewise, only 33% of women are confident that they would be able to put a condom on in the dark, compared with 61% of men.

This low self-efficacy manifested in shyness and poor condom use skills suggests that women may remain highly dependent on their partners, despite their high self-efficacy to discuss and negotiate condom use. In fact, the data confirm that high levels of perceived self-efficacy in condom discussion and negotiation do not completely translate into action. Only 70% of males and 73% of females report ever having asked their regular or casual partner to use condoms ($p = .371$, not shown). It is noteworthy that the percentage who have ever asked a casual partner to use a condom is significantly higher for females than males (78% vs. 64%; $p = .021$, not shown). It is possible that women are using condoms with casual partners to avoid pregnancy whereas men may be less concerned about impregnating a casual partner.

### FACTORS AFFECTING CONDOM USE SELF-EFFICACY

We now examine to what extent gender differentials in three of the key components of condom use self-efficacy can be attributed to other factors. For each self-efficacy component, we show results of two separate logistic regression models. The first

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Probability</th>
<th>Number of Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feels comfortable asking partner to use condoms</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Confident can discuss condom use</td>
<td></td>
<td></td>
</tr>
<tr>
<td>with regular or casual partner</td>
<td></td>
<td></td>
</tr>
<tr>
<td>with regular partner</td>
<td></td>
<td></td>
</tr>
<tr>
<td>with casual partner</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Confident can convince partner to use condom</td>
<td></td>
<td></td>
</tr>
<tr>
<td>regular or casual partner</td>
<td></td>
<td></td>
</tr>
<tr>
<td>regular partner</td>
<td></td>
<td></td>
</tr>
<tr>
<td>casual partner</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Confident knows correct condom use</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Confident can mount condom in the dark</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Would not feel shy to buy condoms in nearby shop</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. From Cameroon Adolescent Reproductive Health Survey (Yaoundé and Douala), 2000.
model shows the effect of gender and having had high exposure to condom advertising, after controlling for differences in age and level of education. The second model adds controls for factors believed to affect self-efficacy, such as prior experience and social recognition and support (Bandura, 1977, 1984; Peltzer, 2000). If social support or prior experience cause gender differences in self-efficacy, then we expect the gender coefficient to be smaller in the second model. The same holds for the effect of condom advertising exposure.

Columns 1 and 2 show the relative odds that respondents perceive having the skills to correctly use a condom. The results shown in column 1 confirm that males are significantly more likely than women to perceive that they have such skills, even when holding exposure to condom advertising, age, and education constant (OR = 2.50). Likewise, respondents who have had high exposure to condom advertising are significantly more likely to perceive that they have the skills to use condoms correctly (OR = 2.53).

Given that prior behavior is an important source of learning in self-efficacy theory (Bandura 1977, 1984), column 2 adds controls for whether the respondent has ever used or bought condoms. Indicators of social support are also added, as this may increase the respondent’s opportunities for learning how to correctly use condoms. The results show that respondents’ confidence in having the necessary skills to correctly use condoms is strongly associated with prior condom use (OR = 5.18) and prior condom purchases (OR = 2.10). Confidence in skills to correctly use condoms is also associated with parental support for condom use (OR = 1.42), but not with peer support. Controlling for these factors has little effect on the gender differential in confidence relating to condom use skills, but it reduces the effect of high exposure to condom advertising. In other words, high exposure to condom advertising is associated with higher confidence in condom use skills, in part because people who have high exposure to condom advertising are more likely than others to feel that they have parental support, and more likely to have bought or used condoms.

<table>
<thead>
<tr>
<th>Knows Correct Condom Use</th>
<th>Not Shy to Obtain Condoms</th>
<th>Confident Can Convince Partner to Use Condoms</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
</tr>
<tr>
<td>Male</td>
<td>2.50***</td>
<td>2.10***</td>
</tr>
<tr>
<td>High condom ad exposure</td>
<td>2.53***</td>
<td>1.69***</td>
</tr>
<tr>
<td>Knows correct condom use</td>
<td>1.35*</td>
<td>1.00</td>
</tr>
<tr>
<td>Not shy to obtain condoms</td>
<td>.97</td>
<td>.91</td>
</tr>
<tr>
<td>Peers support condom use</td>
<td>.97</td>
<td>.91</td>
</tr>
<tr>
<td>Parents support condom use</td>
<td>1.42**</td>
<td>2.23***</td>
</tr>
<tr>
<td>Condoms effective for FP</td>
<td>.81</td>
<td>1.82*</td>
</tr>
<tr>
<td>Condoms effective for STD</td>
<td>.95</td>
<td></td>
</tr>
<tr>
<td>Ever asked for condom use</td>
<td>.95</td>
<td></td>
</tr>
<tr>
<td>Ever been refused condom use</td>
<td>.26***</td>
<td></td>
</tr>
<tr>
<td>Ever used condoms</td>
<td>5.18***</td>
<td></td>
</tr>
<tr>
<td>Ever bought condoms</td>
<td>2.10***</td>
<td></td>
</tr>
<tr>
<td>Number of cases</td>
<td>1097</td>
<td>1097</td>
</tr>
</tbody>
</table>

Note. All models control for age (15–19 vs. 20–24) and level of education (at least secondary vs. other); *p < .10, **p < .05, ***p < .01. From Cameroon Adolescent Reproductive Health Survey (Yaoundé and Douala), 2000.
The factors affecting anticipated shyness in buying condoms are shown in columns 3 and 4 of Table 3. As expected, the results shown in column 3 indicate that males and those with high levels of exposure to condom advertising have highest likelihood of reporting they would not be shy buying condoms (OR = 1.85 and 1.66, respectively).

Column 4 adds controls for indicators of social support and prior experience. It also adds controls for perceived condom effectiveness. We expect that those who believe that condoms are highly effective are more likely to be interested in using condoms, which may make shyness less of an obstacle to condom procurement. Likewise, we anticipate that those who perceive that they have good condom use skills are less likely to be shy about condoms, and thus less likely to be shy about buying them.

The results show that respondents who feel that their parents support condom use are more likely to report not being shy buying condoms (OR = 2.25), but peer support has no influence on such shyness. Interestingly, perceived condom effectiveness for either family planning or STD prevention does not help respondents overcome shyness buying condoms. Confidence in condom skills only has a modest effect on reduced shyness (OR = 1.35; \( p < .10 \)). As anticipated, prior experience buying condoms is associated with lower reported shyness buying condoms (OR = 1.74). Prior condom use, however, has no effect on shyness. Comparison of columns 3 and 4 shows that the effect of gender and exposure to condom ads are partially explained by these other factors.

Finally, columns 5 and 6 show the factors affecting the respondents’ belief that they can convince their regular or casual partner to use a condom with them. Once again, males and those having high exposure to condom advertising have higher perceived self-efficacy to convince partners to use condoms. Adding other indicators (see column 6) shows that prior experience asking for condom use and actual prior use have strong positive effects on confidence (OR = 6.70 and 3.80). By contrast, having had a partner refuse condom use has a strong negative effect on the respondents’ confidence that they can convince their partner to use condoms (OR = .26). These factors explain the effect of condom advertising exposure, which becomes insignificant after controls. They do not, however, explain the gender differential in perceived efficacy in condom negotiation. Having the self-efficacy to correctly use condoms, or to buy condoms, does not have a significant effect on the perceived ability to convince a partner to use condoms.

**THE POTENTIAL ROLE OF CONDOM MEDIA ADVERTISING AND PROMOTION IN IMPROVING SELF-EFFICACY**

Having shown that gender differences in self-efficacy exist and that condom media advertising and promotion can be used to help improve self-efficacy, we now examine to what extent the effect of exposure to condom advertising and promotion varies by gender. We do this using logistic regression analyses, controlling for social support, prior condom use, and buying experience. To facilitate interpretation, the results are shown in the form of adjusted percentages (Table 4).

Among women, the adjusted percentage who perceive knowing correct condom use skills ranges from 44% for those with no condom advertising exposure to 67% for those with high exposure. Among men, the corresponding percentages are 42% and 83%, respectively. The gender differential appears to increase with level of exposure to condom advertising and promotion. This suggests existing condom advertising and promotion had more impact on men’s perceived efficacy in condom use skills than women’s.
The adjusted percentages of respondents who feel they would not be shy obtaining condoms reveal a fairly similar picture. Among women, the percentage who do not feel shy ranges from 42% for those with no condom advertising exposure to 57% for those with high exposure. For men, the range is from 49%-67%. Looking at the gender gap, it appears that low levels of exposure to condom advertising and promotion results in less of gender gap, but at higher levels, men benefit more.

The data on self-efficacy in the ability to convince a partner to use condoms show that this aspect of self-efficacy is high for all groups. Exposure to condom advertising and promotion has no effect for women, and only a minimal effect for men.

**CONCLUSIONS**

Numerous studies have demonstrated that self-efficacy is associated with higher levels of condom use. However, although it has been noted that self-efficacy is a multifaceted concept that varies across cultures (Parsons et al., 2000; Soler et al., 2000), there are few studies of African societies that examine what self-efficacy entails. Such information is essential to enable reproductive health programs to design strategies aimed at improving self-efficacy, which in turn can improve condom use. This study has used survey data to examine multiple aspects of condom use self-efficacy among adolescents and young adults in urban Cameroon.

The results show that most youth in urban Cameroon perceive that they are able to discuss condom use with their partner(s) and that gender differences in this area have virtually disappeared. This provides a potential opportunity for information, education, and communication campaigns, as it implies that it would be appropriate for such campaigns to use images of assertive, confident young women who are discussing sexual health and condom use with their partners, which in turn may help build social support for preventive behavior.

However, the results also show that other aspects of condom use self-efficacy still need improvement, especially for young women. For example, young women are significantly less likely than young men to believe that they can actually convince their partner to use condoms, although the difference is not very large. More important,
women have a very large disadvantage in terms of the practical aspects of self-efficacy, such as shyness purchasing condoms and lack of confidence in their ability to correctly use or put on a condom. More than 4 out of 10 sexually active young women do not feel confident that they know how to correctly use a condom, compared with 2 out of 10 young men. Likewise, 67% of young women report that they would be shy obtaining condoms whereas only 51% of men report such shyness.

As anticipated, perceived ability to correctly use condoms is strongly associated with prior condom use and condom purchases. It is also associated with parental support for condom use (but not with peer support), which suggests that having supportive parents provides an environment that facilitates learning about condom use. Exposure to condom advertising also enhances the perceived ability to correctly use condoms, to some extent because advertising exposure is associated with greater parental support, and higher levels of experience with condom use and condom buying. In other words, condom advertising programs appear to help make condom use more acceptable to parents and enhance parental support. At the same time, condom advertising programs also increase condom purchases and use among the youth themselves, which in turn gives them more confidence.

Analyses of the factors affecting self-efficacy buying condoms also highlight the role of parental support and prior experience buying condoms. The latter suggests that if programs succeed in getting youth to make their first condom purchases, this will help them gain confidence in making subsequent purchases. This finding has important programmatic implications. For example, it implies that it is important to make condoms accessible to youth, for example through youth-friendly outlets. This may require publicizing existing outlets that are youth-friendly and, if necessary, opening additional youth-friendly outlets that provide special training for condom providers. This may make it easier for youth to overcome their reluctance to make their initial condom purchases, which would in turn increase their confidence. Prevention programs that focus on skill building may want to explore opportunities for making the actual experience of purchasing a condom part of their activities (e.g., such activities may include inviting youth to make condom purchases while accompanied by a trained peer educator). The findings also suggest that there may be a need for programs that aim to change the social norms that limit social acceptability of girls buying condoms, as this is likely to help reduce initial reluctance to buy condoms. Such programs could appeal directly to gatekeepers (such as retailers who sell condoms) but may also reach out to youth directly and encourage them to go against the prevailing norms in order to protect their health.

It is noteworthy that having experience using condoms does not improve confidence in youth’s ability to buy condoms. In other words, young women who have been using condoms—but relied on their boyfriends to obtain them—may still lack the confidence to buy condoms. Hence, if a subsequent boyfriend does not buy condoms, such women might stop using condoms. This suggests that youth-friendly condom outlets should ensure that they do not only focus on young men but also on young women. Likewise, information, education and communication campaigns can help encourage young women to take advantage of these youth-friendly outlets and/or to take action to protect their health.

The gender difference in perceived ability to buy condoms is almost entirely due to these other factors. After controlling for parental support, prior purchasing behavior, and other factors, the gender difference is small and barely significant ($p < .10$).
Youth’s perceived ability to convince their partners to use condoms—which is very high—is strongly affected by prior experience. Having prior experience using condoms, or asking for condom use, increases their confidence that it is possible to convince their partner, while having been refused condom use diminishes it. Neither self-efficacy in perceived condom skills and purchasing nor parental support have any effect on the perceived ability to convince a partner to use condoms. Young women are significantly less likely than men to feel that they can convince their partner to use condoms, although the difference is small. This was expected in part because condoms are a male method, and in part because cultural norms expect Cameroonian women to be docile and obey their partners (Calvès, 1999). Hence it is not surprising that exposure to condom advertising did not have a net effect on confidence to convince partners to use condoms. It only had an indirect effect, by enhancing the likelihood of previously having asked for condom use or of having used them. Further analyses of the potential role of current forms of condom advertising and promotion programs confirm that these can have a substantial impact on perceived ability to correctly use condoms and to buy condoms, but not on confidence in one’s ability to convince a partner to use condoms.

In sum, our findings suggest that HIV prevention and reproductive health programs that aim to increase self-efficacy in condom use among urban Cameroonian women should focus not so much on self-efficacy for condom negotiation (which is already high), but more so on confidence in buying condoms and in using them correctly. Condom advertising and promotion programs can play an important role in this, as can other strategies aimed at enhancing parental support for condom use, especially for young females.

REFERENCES


