Current or Past Physical or Sexual Abuse as a Risk Marker For Sexually Transmitted Disease in Pregnant Women

By Pamela Jo Johnson and Wendy L. Hellerstedt

Pamela Jo Johnson is doctoral candidate and graduate research assistant, and Wendy L. Hellerstedt is associate professor and director of the Maternal and Child Health Training Program, both in the Division of Epidemiology, School of Public Health, University of Minnesota, Minneapolis.

CONTEXT: *Previous studies suggest that a history of physical or sexual violence is positively associated with a history of sexually transmitted disease (STD). It is important to determine whether abuse is also a risk factor for current STD infection.*

METHODS: *Data were collected from 744 clients of an urban Midwestern prenatal clinic who gave birth in 1991–1996. Multiple logistic regression analyses were conducted to determine how the odds of having a history of STD or a current STD infection are affected by the experience of abuse.*

RESULTS: *Overall, 30% of the women had a history of STD, and 18% had a current STD infection. Results of multivariate analyses showed that compared with nonabused women, those who had experienced any type of abuse had nearly twice the odds of having a history of infection and of currently having an STD. In separate analyses by abuse type, women with a history of only sexual abuse had twice the odds and those with a history of both physical and sexual abuse had nearly three times the odds of having a current STD, compared with women who reported no abuse.*

CONCLUSIONS: *Abused women are at significantly increased risk of having a history of STD; abuse is also associated with an increased risk of current infection, especially among those with any history of sexual abuse. Future studies should be undertaken to better understand the role that abuse may play in relation to STD risk.*

Perspectives on Sexual and Reproductive Health, 2002, 34(2):62–67

The spread of sexually transmitted diseases (STDs) has been called a "hidden epidemic" because these infections are becoming increasingly pervasive without receiving a corresponding increase in public attention.[1] An estimated 15 million new cases of STD occur each year in the United States.[2] Many of these diseases remain asymptomatic in women, and detection and treatment are often delayed as a result. Furthermore, in pregnant women, STDs may be associated with preterm delivery, maternal-fetal transmission of infection and other neonatal complications.[3]

The prevention of STDs is a long-standing public health goal that has primarily revolved around screening, partner notification, promoting condom use and discouraging high-risk sexual behaviors.[4] These conventional prevention strategies, however, may not be feasible for women who are or have been victims of abuse.

Violence affects women of all ages, but the highest rates occur among women aged 16–34—women in the prime childbearing years.*[5] The prevalence of violence during pregnancy is reported to range from 1% to 22%; the majority of studies have found rates between 4% and 8%.[6] According to several studies, at least 40% of women who have been physically abused by their partner also report experiencing sexual violence in that relationship.[7] Even physically abused women who do not experience sexual violence may engage in risky sexual behaviors because they fear losing their partner,[8] or because they are scared or unable to negotiate condom use.[9]

Five previous studies have examined the association of violence and STDs in women,[10] and all have shown a positive relationship between having a history of abuse and having a history of STDs. Only two, however, examined the differential risk for infection by the type of abuse (physical or sexual),[11] and none examined differences by the time of abuse (past or current). In addition, all of these studies relied on self-reported STD history; given that STDs are often asymptomatic in women, this may not be a valid measure. Furthermore, past research focused on history of STDs; none reported on the association between abuse and incident STD.

We have examined the association between pregnant women's current and past experiences of abuse and their current and past STD status. Current infections were determined by laboratory testing, while past infections were self-reported. Our study had two main goals: to examine the differences in documented history of STDs between pregnant women who reported abuse and those who reported no abuse, and to examine the differences in incident STD status between women who reported abuse and those who reported no abuse. We hypothesized that the past and current STD risk would be higher among women who reported abuse than among those who reported no abuse.

*The annual rate of nonlethal violent victimization by a current or former intimate partner varies by age of the female victim: Rates are highest among females aged 16–19 (20.1 per 1,000), 20–24 (20.7 per 1,000) and 25–34 (16.5 per 1,000), and are much lower among females aged 12–15 (2.6 per 1,000), 35–49 (7.2 per 1,000), 50–64 (2.6 per 1,000) and 65 or older (0.2 per 1,000) (source: reference 5).

DATA AND METHODS

We collected data from the charts of clients who received care at an urban Midwestern prenatal clinic. The study was approved by the University of Minnesota's institutional review board.

Sample Selection

Using a matched retrospective cohort design, we selected participants from an automated clinical database containing data for all 1,865 women who received care at the clinic and delivered at an affiliated hospital between 1991 and 1996. This database included demographic and clinical information, as well as documentation of abuse status as reported by the client to a clinic social worker.

We identified all clients who had experienced physical or sexual abuse and had delivered a live-born singleton, and selected this group of 304 women for chart review. (We excluded women who had a fetal death because of incomplete documentation.) For each abused woman, we randomly selected two women who did not report any abuse and who delivered live-born singletons to serve as a comparison group. These women were matched to the abused women by maternal age-group (younger than 20 vs. 20 and older)* and year of infant's birth.

Thus, 912 women (49% of those who received services) were selected for chart abstraction. Of this sample, 149 were excluded because their charts lacked documentation of abuse status† (i.e., no social worker's form), and two because the database had duplicate entries. Thirteen women had had more than one delivery during the study period; for each of these, we randomly selected one pregnancy for study inclusion. Prior to analysis, four women were excluded because their charts lacked documentation of STD testing during the study pregnancy. The remaining sample consisted of 744 women who had chart documentation of abuse status and of STD testing during the study pregnancy, and who delivered live-born singletons.

Data Collection

Medical and demographic data were originally charted on standardized prenatal care forms and were abstracted for the study via retrospective chart review by two medical records technicians who were unaware of the study hypotheses. The outcome measures were documented STD history (as reported by the women) and incident STD (as determined by a laboratory test during the study pregnancy). Clinic protocol required routine testing for gonorrhea, syphilis and chlamydia at 16 weeks' gestation or at the first prenatal care visit if that visit occurred after 16 weeks; testing for gonorrhea and chlamydia was repeated at 36 weeks. Screening for HIV, human papillomavirus, herpes, trichomoniasis and other infections was conducted as indicated for symptomatic or at-risk patients; the designation of at-risk was subjectively defined by clinicians on the basis of social or demographic risk factors for STD. If a woman tested positive for a viral STD (e.g., herpes or human papillomavirus), we cross-checked her medical history to verify that the infection was new.

Abuse data were originally collected and documented in the medical record by one of the clinic's two social workers. According to clinic protocol, a social worker conducted a psychosocial interview with each client during her first prenatal visit. The interview included a standard list of topics, all of which were to be discussed in an open-ended format; there were no standardized questions. The social work-

TABLE 1. Percentage distribution of clients at an urban prenatal care clinic, by selected characteristics, 1991–1996

Characteristic	% (N=744)
Race/ethnicity	
White	48.5
Black	34.1
Other	17.3
Age at delivery	
<18	25.5
≥18	74.5
Parity	
0	62.8
≥1	37.2
Received Medicare	
Yes	78.4
No	21.6
Education	
<adequate for age	24.3
≥adequate for age	75.7
Marital status	
Single	73.5
Other	26.5
Unplanned pregnancy	
Yes	85.9
No	14.1
Smoked during pregnancy	
Yes	37.4
No	62.6
Used alcohol during pregnancy	
Yes	14.9
No	85.1
Used drugs during pregnancy	
Yes	7.7
No	92.3
History of STD	
Yes	29.8
No	70.2
Incident infection	
Yes	17.7
No	82.3
Abuse status	
No abuse	51.2
Current physical or sexual abuse	8.5
History of physical abuse only	22.6
History of sexual abuse only	9.0
History of physical and sexual abuse	8.7
Total	100.0

*For analysis, however, we examined women younger than 18 or 18 or older because of differential STD risk.

†These women were all from the comparison group.

TABLE 2. Percentage distribution of prenatal care clients, by selected characteristics, according to STD history and incident infection status

Characteristic	History		Incident infection	
	Positive (N=222)	Negative (N=522)	Positive (N=132)	Negative (N=612)
Race/ethnicity				
White	42.8***	51.0	32.6***	52.0
Black	43.7***	30.1	53.8***	29.9
Other	13.5***	19.0	13.6***	18.1
Age				
<18	31.1*	23.2	36.6**	22.9
≥18	68.9	76.8	63.4	77.1
Parity				
0	62.6	62.8	74.2**	60.3
≥1	37.4	37.2	25.8	39.7
Received Medicare				
Yes	75.7	79.5	78.0	78.4
No	24.3	20.5	22.0	21.6
Education				
<adequate for age	26.2	23.5	22.5	24.7
≥adequate for age	73.8	76.5	77.5	75.3
Marital status				
Single	79.2**	68.8	87.8***	70.4
Other	20.8	31.2	12.2	29.6
Unplanned pregnancy				
Yes	87.8	85.1	89.4	85.4
No	12.2	14.9	10.6	14.6
Smoked during pregnancy				
Yes	43.7*	34.7	36.4	37.6
No	56.3	65.3	63.6	62.4
Used alcohol during pregnancy				
Yes	20.7**	12.5	17.4	14.4
No	79.3	87.5	82.6	85.6
Used drugs during pregnancy				
Yes	11.3*	6.1	10.6	7.0
No	88.7	93.9	89.4	93.0
Abuse status				
No abuse	40.5***	55.8	47.0	52.1
Current physical or sexual abuse	11.3	7.3	10.6	8.0
History of physical abuse only	21.6	23.0	15.9*	24.0
History of sexual abuse only	13.1**	7.3	13.6*	8.0
History of physical and sexual abuse	13.5**	6.7	12.8	7.8
Total	100.0	100.0	100.0	100.0

*p<.05. **p<.01. ***p<.001. *Note:* Significance levels refer to differences between distributions by STD status (positive or negative).

er queried the client about the presence or absence of current and previous abuse, the type of abuse (physical or sexual) and the perpetrator (partner, parent, family member or other). The abuse assessment protocol was developed for clinical practice, not as a research instrument; thus, the assessment method used was not validated.

*Adequate education for age was defined as completion of high school or greater for women aged 20 or older; for women younger than 20, it was defined as age minus seven years.

Data Analysis

For our analyses, we created two variables regarding women's experience of abuse. The first was a dichotomous variable that distinguished women with any report of current or past abuse from those who reported no abuse. The second identified five mutually exclusive abuse categories, which distinguished among women who reported current physical or sexual abuse (regardless of their history of abuse), a history of only physical abuse, a history of only sexual abuse, a history of both physical and sexual abuse, and no abuse.

In preliminary analyses, we performed chi-square tests to examine the bivariate associations between selected covariates and STD status. Logistic regression analyses were conducted to examine the associations of any report of abuse versus no abuse (i.e., the dichotomous variable) with history of STD and with incident STD. Separate analyses examined the associations between the specific abuse types (modeled as four dummy-coded variables, with no abuse as the referent) and history of STD and incident STD. Covariates in the adjusted analyses were those that were associated with STD status in the preliminary analyses. All logistic regression models accounted for the matching variables by including them as covariates. These analyses produced adjusted odds ratios and 95% confidence intervals. All analyses were conducted with SAS version 6.12, with statistical significance defined as p≤.05.[12]

RESULTS

Background Characteristics

Almost half (49%) of the women in the sample were white, one-third (34%) were black and the remainder (17%) were members of other racial and ethnic groups (primarily Asian—Table 1, page 63). Women's ages ranged from 13 to 43 years and averaged 21 years (not shown); 26% of the women were younger than 18 at the time they delivered. About one-quarter had less than adequate education for their age,* and three-quarters were of low socioeconomic status, as measured by enrollment in Minnesota's Medicaid program, Medical Assistance (78%).

Thirty percent of the women reported having a history of STD, and 18% had at least one positive laboratory test for incident STD infection. During their first prenatal visit, nearly half (49%) reported past or current physical or sexual abuse. (This proportion reflects the sampling plan to select matched sets of abused and nonabused women and the exclusions made during abstraction and analyses, rather than the prevalence of abuse in this population.) Nine percent of women reported current abuse; of those, 79% also reported having a history of abuse (not shown). Overall, 23% reported having a history of only physical abuse; 9%, only sexual abuse; and 9%, both physical and sexual abuse. The majority of abuse was perpetrated by partners: Eighty-six percent of those who reported current abuse, 64% of those who reported past physical abuse and 55% of those who reported past physical and sexual abuse identified a partner as the perpetrator (not shown). Among those who reported having a history of only sexual abuse, 46% iden-

TABLE 3. Odds ratios (and 95% confidence intervals) from logistic regression analysis indicating the association between various characteristics and having a documented STD history

Characteristic	Odds ratio
Ever abused	
No (ref)	1.00
Yes	1.93 (1.38–2.73)***
Type of abuse	
None (ref)	1.00
Current physical or sexual abuse	2.02 (1.13–3.60)*
History of physical abuse only	1.42 (0.92–2.20)
History of sexual abuse only	2.32 (1.31–4.07)**
History of physical and sexual abuse	3.10 (1.73–5.56)***
Race/ethnicity	
White (ref)	1.00
Black	1.71 (1.17–2.51)**
Other	0.87 (0.51–1.44)
Age	
<18	1.57 (1.05–2.34)*
≥18 (ref)	1.00
Marital status	
Single	1.81 (1.20–2.80)**
Other (ref)	1.00
Smoked during pregnancy	
Yes	1.44 (0.99–2.08)
No (ref)	1.00
Used alcohol during pregnancy	
Yes	1.51 (0.92–2.45)
No (ref)	1.00

*p<.05. **p<.01. ***p<.001. *Notes:* ref=reference category. Analysis excluded 11 women for whom data were missing for some covariates. Although drug use was significant in bivariate analysis, it was significantly correlated with alcohol use and, thus, is not included.

tified a parent or family member as the perpetrator.

A greater proportion of the women excluded from the analyses than of those included were nonwhite (63% vs. 52%) and married (22% vs. 13%). There were no significant differences between excluded and included women in maternal age, parity, tobacco use, alcohol use or year of delivery; data for medical assistance, education or pregnancy planning was unavailable for most excluded women.

Bivariate Results

Compared with women who had no history of STD, those with such a history were significantly more likely to be black, younger than 18 and single; they also were significantly more likely to have used tobacco, alcohol or illicit drugs during their pregnancy (Table 2). In addition, women with an STD history were more likely than those without to report having experienced any abuse, having a history of only sexual abuse and having a history of physical and sexual abuse.

Compared with women who tested negative for STDs during pregnancy, those with a current STD confirmed by laboratory test were significantly more likely to be black, younger than 18, primiparous and single. Women with a current STD were also more likely than those without to report having a history of only physical abuse and having a history of only sexual abuse.

Women who tested positive for an STD during pregnancy were significantly more likely than those who did not to have a history of STD (73% vs. 21%–not shown). Abused women were significantly more likely to have a history of STD than those not abused (36% vs. 24%), and similar proportions of abused and nonabused women had a positive laboratory test for a current STD.

Multivariate Results

In analysis adjusting for the characteristics that were significantly related to STD history at the bivariate level, the odds of such a history were roughly doubled (odds ratio, 1.9) among women who had ever experienced abuse (Table 3). Analysis by abuse type showed that three of the four abuse categories were significantly associated with a history of STD. Compared with women who reported no abuse, those who reported current abuse and those with a history of only sexual abuse had about twice the odds (2.0 and 2.3, respectively), and those with a history of both physical and sexual abuse had three times the odds (3.1), of having a history of STD. Having a history of only physical abuse was not significantly associated with having an STD history. Black women, those younger than 18 and single women had significantly elevated odds of having an STD history (1.6–1.8).

After the analysis was adjusted for covariates, abused women had nearly twice the odds (odds ratio, 1.7) of those not abused of testing positive for an STD (Table 4). In analysis of abuse type and incident STD, a pattern similar to that observed for history of STD emerged: Compared with

TABLE 4. Odds ratios (and 95% confidence intervals) from logistic regression analysis indicating the association between various characteristics and having positive laboratory test documentation of a current STD infection

Characteristic	Odds ratio
Ever abused	
No (ref)	1.00
Yes	1.69 (1.12–2.55)*
Type of abuse	
None (ref)	1.00
Current physical or sexual abuse	1.52 (0.75–2.96)
History of physical abuse only	1.15 (0.64–2.02)
History of sexual abuse only	2.14 (1.10–4.03)*
History of physical and sexual abuse	2.97 (1.49–5.78)**
Race/ethnicity	
White (ref)	1.00
Black	2.75 (1.74–4.41)***
Other	1.13 (0.59–2.09)
Age	
<18	1.46 (0.92–2.31)
≥18 (ref)	1.00
Parity	
0	1.89 (1.17–3.13)*
≥1 (ref)	1.00
Marital status	
Single	1.92 (1.10–3.55)*
Other (ref)	1.00

*p<.05. **p<.01. ***p<.001. *Notes:* ref=reference category. Analysis excluded 14 women for whom data were missing for some covariates.

women who reported no abuse, women with a history of only sexual abuse had twice the odds (2.1), and those with a history of both physical and sexual abuse had nearly three times the odds (3.0), of incident STD. Current abuse and having a history of only physical abuse were not significantly associated with having a current STD infection. Black, primiparous and single women had significantly elevated odds of testing positive for an STD during pregnancy (1.9–2.8).

DISCUSSION

The study presented in this article provides new evidence regarding the association between abuse status and current STD infection in pregnant women, as indicated by laboratory testing rather than self-reported history. As we hypothesized, abused pregnant women were significantly more likely to have a positive test result for a current STD than those not abused; compared with those reporting no abuse, women with a history of only sexual abuse and those with a history of both physical and sexual abuse had 2–3 times the odds of having a current STD. While the nature of these data precludes establishing any temporal sequence between abuse and infection, our findings suggest that the sexual environments of women who experience abuse may be characterized by both biological and behavioral risk.

We found that one-third of our clinic population had a history of STD and that a self-reported history of STD was significantly associated with abuse in pregnant women; both of these findings are consistent with those from previous research.[13] Our finding that pregnant women who reported current abuse or any history of sexual abuse were significantly more likely than nonabused women to have a history of STD is also consistent with previous research showing that a history of STD in pregnant women is more strongly associated with a history of physical and sexual abuse than with a history of physical abuse alone.[14] (Another recent study of nonpregnant women reported that women who experienced both physical and sexual abuse were three times more likely to have had an STD in their current relationship and six times more likely to have had multiple STDs than women who experienced only physical abuse.[15])

Our findings should be interpreted in the context of the study's limitations. There were few women in each abuse category; thus, the sample may have been too small to fully articulate the nature of the association between abuse and incident STD. Also, because we did not have sexual history, STD treatment history or partner's STD history data, we could not provide more context for understanding the relationship found between abuse and STD.

We did not differentiate abuse by the relationship with the perpetrator because the majority of women were abused by their partners and we felt that STD risk would be associated with any physical or sexual threat, irrespective of the perpetrator. Also, we did not have specific information about the time period in which the abuse occurred, whether it occurred once or chronically, or the severity of the abuse. It is plausible that women with chronic or more severe exposure to abuse would be at greater risk for acquiring an STD.

Furthermore, we relied on self-reported abuse status, which was ascertained by a clinical assessment tool developed by one of the clinic's social workers. The tool was never tested for its psychometric properties, and thus, it is possible that abuse was underestimated. The effects of such misclassification would likely weaken the associations between abuse and STD.

Finally, the women in this study were pregnant and were predominantly of low socioeconomic status. Thus, we do not know if the associations we reported can be generalized to nonpregnant women or those of middle and upper socioeconomic status.

Scientific research has not yet determined whether the experience of physical or sexual abuse is directly related to STDs or whether this association is mediated by other behaviors that put abused women at increased risk.[16] The association we found between abuse and STDs was as strong as or stronger than those reported elsewhere between STDs and demographic risk markers,[17] which suggests that abuse history may be an important risk marker for STDs among pregnant women. Future studies should be undertaken in order to better understand the sexual environment of women who have experienced violence and the role that violence may play in women's reproductive health.

REFERENCES

1. Eng TR and Butler WT, *The Hidden Epidemic: Confronting Sexually Transmitted Diseases*, Washington, DC: National Academy Press, 1997.

2. Cates W, Estimates of the incidence and prevalence of sexually transmitted diseases in the United States, *Sexually Transmitted Diseases*, 1999, 26(4 Suppl.):S2–S7.

3. Division of Sexually Transmitted Diseases, National Center for HIV, STD and TB Prevention, Centers for Disease Control and Prevention (CDC), *Sexually Transmitted Disease Surveillance, 1998*, Atlanta: CDC, 1999; and Goldenberg RL et al., Sexually transmitted diseases and adverse outcomes of pregnancy, *Clinics in Perinatology*, 1997, 24(1):23–41.

4. U.S. Department of Health and Human Services, *Healthy People 2010*, Washington, DC: U.S. Government Printing Office, 2000; and CDC, 1998 guidelines for treatment of sexually transmitted diseases, *Morbidity and Mortality Weekly Report*, 1998, 47(RR–1):1–111.

5. Greenfield LA et al., *Violence by Intimates: Analysis of Data on Crimes by Current or Former Spouses, Boyfriends, and Girlfriends*, Washington, DC: U.S. Department of Justice, Office of Justice Programs, 1998.

6. Gazmararian JA et al., Prevalence of violence against pregnant women, *Journal of the American Medical Association*, 1996, 275(24):1915–1920.

7. Campbell JC and Alford P, The dark consequences of marital rape, *American Journal of Nursing*, 1989, 89(7):946–949; Campbell JC and Soeken KL, Forced sex and intimate partner violence: effects on women's risk and women's health, *Violence Against Women*, 1999, 5(9):1017–1035; and Eby KK et al., Health effects of experiences of sexual violence for women with abusive partners, *Health Care for Women International*, 1995, 16(6): 563–576.

8. Worth D, Sexual decision-making and AIDS: why condom promotion among vulnerable women is likely to fail, *Studies in Family Planning*, 1989, 20(6):297–307.

9. He H et al., Violence and HIV sexual risk behaviors among female sex partners of male drug users, *Women & Health*, 1998, 27(1–2):161–175; Kalichman SC et al., Sexual coercion, domestic violence, and negotiating condom use among low-income African American women, *Journal of Women's Health*, 1998, 7(3):371–378; Molina LD and Basinait-Smith C, Revisiting the intersection between domestic abuse and HIV risk, *Amer-*

ican Journal of Public Health, 1998, 88(8):1267–1268; and Wingood GM and DiClemente RJ, The effects of an abusive primary partner on the condom use and sexual negotiation practices of African-American women, *American Journal of Public Health*, 1997, 87(6):1016–1018.

10. Amaro H et al., Violence during pregnancy and substance use, *American Journal of Public Health*, 1990, 80(5):575–579; El-Bassel N et al., Partner violence and sexual HIV-risk behaviors among women in an inner-city emergency department, *Violence and Victims*, 1998, 13(4):377–393; Hillis SD et al., Adverse childhood experiences and sexually transmitted diseases in men and women: a retrospective study, *Pediatrics*, 2000, <http://www.pediatrics.org/cgi/reprint/106/1/ ell.pdf>; Martin SL et al., Domestic violence and sexually transmitted diseases: the experience of prenatal care patients, *Public Health Reports*, 1999, 114(3):262–268; and Plichta SB and Abraham C, Violence and gynecologic health in women <50 years old, *American Journal of Obstetrics and Gynecology*, 1996, 174(3): 903–907.

11. Hillis SD et al., 2000, op. cit. (see reference 10); and Martin SL et al., 1999, op. cit. (see reference 10).

12. SAS Institute, *SAS Procedures Guide, Release 6.03 Edition*, Cary, NC: SAS Institute, 1988.

13. Amaro H et al., 1990, op. cit. (see reference 10); El-Bassel N et al., 1998, op. cit. (see reference 10); Hillis SD et al., 2000, op. cit. (see reference 10); Martin SL et al., 1999, op. cit. (see reference 10); and Plichta SB and Abraham C, 1996, op. cit. (see reference 10).

14. Ibid.

15. Wingood GM, DiClemente RJ and Raj A, Adverse consequences of intimate partner abuse among women in non-urban domestic violence shelters, *American Journal of Preventive Medicine*, 2000, 19(4):270–275.

16. Maman S et al., The intersections of HIV and violence: directions for future research and interventions, *Social Science and Medicine*, 2000, 50(4): 459–478.

17. Eng TR and Butler WT, 1997, op. cit. (see reference 1).

Acknowledgments

This study was supported by the University of Minnesota's Maternal and Child Health Training Grant (MCJ000111) from the Maternal and Child Health Bureau and by a University of Minnesota Graduate School Grant-in-Aid.

Author contact: *johnson_p@epi.umn.edu*

CALL FOR PAPERS

30 Years After *Roe*

January 2003 marks the 30th anniversary of *Roe v. Wade,* the U.S. Supreme Court decision legalizing abortion. To commemorate this anniversary, *Perspectives on Sexual and Reproductive Health* will devote part of its January/February issue to commentaries addressing how abortion-related policies and practices have affected the lives of American women, their health care providers, their partners and their families; what difficulties exist for women who wish to obtain abortions or providers who wish to offer them today; and the prospects for overcoming these obstacles. We welcome submissions of up to 3,500 words. *Deadline for submissions is September 13, 2002.*

Men's Sexual and Reproductive Health: Recognizing and Meeting the Needs

As recognition grows that men have distinct sexual and reproductive health needs, but that few services are tailored to meet them, providers and educators are adapting old programs and developing new ones to enable men to obtain the information and care that they require. The November/December 2003 issue of *Perspectives on Sexual and Reproductive Health* will include a special section addressing the need for men's services, the scope and effectiveness of existing programs, and approaches to closing remaining gaps in services. We will consider original research or review articles (with a maximum length of 6,000 words), as well as commentaries (up to 3,500 words). *Deadline for submissions is April 15, 2003.*

To submit a manuscript for either of these special issues, please send one copy to Patricia Donovan, Editor in Chief, *Perspectives on Sexual and Reproductive Health,* 120 Wall Street, New York, NY 10005, or e-mail it to articles@guttmacher.org. Detailed guidelines for authors may be found elsewhere in this issue.