Perspectives on Sexual and Reproductive Health
Volume 34, Number 6, November/December 2002

Chronically Homeless Women's Perceived Deterrents to Contraception

By Lillian Gelberg, Barbara Leake, Michael C. Lu, Ronald Andersen, Adeline M. Nyamathi, Hal Morgenstern and Carole Browner

CONTEXT: Despite the growing number of homeless women of reproductive age, little is known about their reproductive health and contraceptive use.

METHODS: A representative sample of 974 currently homeless women surveyed in Los Angeles County in 1997 included 229 who were chronically homeless and at risk for unintended pregnancy. The relationships between perceived deterrents among these women and their frequency of contraceptive use were evaluated using chi-square tests. Logistic regression analyses were performed to identify independent predictors of contraceptive deterrents.

RESULTS: The most commonly cited deterrents to contraceptive use were side effects, fear of potential health risks, partner's dislike of contraception and cost (20-27%). Women who reported substantial deterrents were significantly less likely than others to use contraceptives consistently. Perceived deterrents differed by women's characteristics: Hispanic women were more likely than whites to view not knowing how to use contraceptives or which method to use as a deterrent (odds ratios, 9.6-9.8); black women were more likely than whites to cite not knowing which method to use (4.0), lack of storage (5.5), health risks (6.0) and discomfort (3.3). Women with a history of drug abuse had elevated odds of citing not knowing how to use contraceptives, uncertainty about which method to use and cost as deterrents (5.2-7.7).

CONCLUSION: Homeless women report substantial deterrents that reduce their contraceptive use. The multiplicity and heterogeneity of their perceived deterrents suggest a need for reproductive health services that are more integrated and culturally competent than those currently offered.

Perspectives on Sexual and Reproductive Health, 2002, 34(6):278-285

» article in pdf
» table of contents
» search the PSRH archive
» guidelines for authors

Lillian Gelberg is George F. Kneller professor, Department of Family Medicine; Barbara Leake is principal statistician; Michael C. Lu is assistant professor, Department of Obstetrics and Gynecology; and Carole Browner is professor, Department of Psychiatry and Biobehavioral Sciences—all with the David Geffen School of Medicine, University of California, Los Angeles (UCLA). Ronald Andersen is Wasserman professor and chair, Department of Health Services, and Hal Morgenstern is professor and vice-chair, Department of Epidemiology—both with the School of Public Health, UCLA. Adeline M. Nyamathi is professor and associate dean of academic affairs, School of Nursing, UCLA.

Since the early 1980s, women have been one of the most rapidly growing segments of the homeless population in the United States.[1] The 1999 National Survey of Homeless Assistance Providers and Clients found that 42% of those surveyed were women and more than 80% of homeless families were headed by women.[2] At any given time, one-fifth of homeless women are pregnant—a rate twice that of all U.S. women of reproductive age and substantially higher than that of low-income women who are not homeless.[3]

Despite the growing number of homeless women of reproductive age, little is known

about their reproductive health. Homeless women are difficult to study: Since they do not have telephones or home addresses, they are not captured in most national surveys, such as the National Survey of Family Growth.[4] Limited data suggest that homeless youth engage in high-risk sexual behaviors,[5] but the studies that produced these findings did not address use of contraceptives other than condoms. While homeless women may perceive many deterrents to contraceptive use that are similar to those of women in the general population, overcoming these obstacles may be more difficult for homeless women. For example, the fragmentation of reproductive health care, particularly for family planning services, can cause substantial access problems for women in the general population who wish to practice contraception;[6] they could impose even greater deterrents for homeless women, who may lack the resources to maneuver through the system and who may defer meeting their contraceptive needs in favor of meeting more immediate needs. Other factors that discourage contraceptive use may be unique to the homeless population, such as having no place for storage.

The primary objective of the study presented in this article was to identify perceived deterrents to contraceptive use among chronically homeless women. Identifying these deterrents is an important first step toward improving the reproductive health of chronically homeless women. Understanding the factors that impede homeless women from using contraceptives may help inform the design of family planning services and programs that are accessible and acceptable to this hard-to-reach population.

Our second objective was to determine how specific deterrents to contraceptive use vary by personal, social and demographic characteristics. Because homeless women are a heterogeneous population with diverse backgrounds, their perceived deterrents, like those of the general population, probably vary.[7] Identifying who is at risk for what deterrent may help target public health interventions. It may also enhance the competency of family planning services and programs to effectively address the contraceptive needs of particular subgroups of homeless women.

METHODS

Data

Between January and October 1997, we collected data on homeless women aged 15-44* using a two-stage sampling strategy designed to obtain a representative sample of homeless women who might benefit from reproductive health interventions.[8] Women were sampled at 60 shelters and 18 meal programs in Los Angeles County that served single women and those with partners and children. Analysis weights were set inversely proportional to the separate probabilities of selection for each woman, which, in turn, were directly proportional to the frequency of women's use of sites within the sampling frame during the data collection period. These weights were used in the analyses reported in this article.

We used an eligibility screener to assess which women in the sample met the criteria to participate in the interview. Women were eligible if they were 15-44 years old, had not previously completed the interview and had spent at least one night in the past month in a mission, a homeless or transitional shelter, a hotel paid for by a voucher, a church or chapel, an all-night theater or other indoor public place, an abandoned building, a vehicle or a rehabilitation program for homeless people, or on the street or in another

outdoor public place.

Trained interviewers conducted one-hour in-person interviews using a pretested, structured questionnaire. Women were paid $2 for completing the eligibility screener and $10 for completing the interview. The nonresponse rate attributable to loss of selected sites was 6%, and the nonresponse rate among women within sites was 12%. No information was obtained on nonrespondents. The study was approved by the University of California, Los Angeles, and RAND institutional review boards.

The primary outcome variables were self-reported deterrents to contraceptive use. Participants were asked whether each of the following nine deterrents had been "a "big problem, a small problem, or not a problem" in using birth control methods: not having a place to store contraceptives; not knowing where to get contraceptives; not knowing how to use contraceptives; feeling unsure about which method to use; cost; having a partner who dislikes birth control; contraceptive-related side effects; finding methods uncomfortable or unnatural-feeling; and fearing that contraceptives would harm their health. In addition, we examined the associations between frequency of contraceptive use and each of the perceived deterrents.

In the present study, we added modal living place in the past 60 days to the standard list of social and demographic predictor variables, such as age, race, ethnicity and education. To determine the duration of women's recent homelessness, we asked how much time respondents had been homeless in the past year. Women's lifetime histories of alcohol and drug abuse were assessed using two three-item screening instruments with both sensitivity and specificity exceeding 90%. Depression in the past 12 months was measured using a three-item screening instrument with a sensitivity of 81% and a specificity of 95% when compared against the Diagnostic Interview Schedule.[9] We selected lifetime histories of alcohol abuse and drug abuse histories, and self-reported history of recent depression as predictor variables, because they have been identified as risk factors for contraceptive nonuse in the general population,[10] and because they have a high prevalence among the homeless population.[11]

Data Analysis

Our analyses included chronically homeless women who were nonsterile, had had heterosexual intercourse in the past year and did not intend to get pregnant (i.e., were at risk of unintended pregnancy). We defined women as being chronically homeless if they had been literally homeless, as defined by the McKinney Act,[†] for the past two months and had been homeless for more than half of the year prior to the interview. Of the 974 women sampled who completed interviews, 512 were at risk of unintended pregnancy; of this group, 229 were chronically homeless and, thus, made up the final sample for the analyses presented in this article. Since the parent sample was probabilistically selected, and since deterrents to contraception were not among the criteria used to select the women for this study, the sample of women examined here is probabilistically representative of chronically homeless women in shelters and meal programs who are at risk of unintended pregnancy in Los Angeles County.

Among women at risk of unintended pregnancy, there were no ethnic, educational or depression-related differences between those who were chronically homeless and those who were not. Chronically homeless women were more likely than others to have

lived primarily outdoors in the past two months (16% vs. 3%) and have a lifetime history of alcohol abuse (46% vs. 27%) or drug abuse (61% vs. 37%). Furthermore, chronically homeless women tended to be somewhat older than others: Eighty-three percent and 71%, respectively, were 25 or older. Sensitivity analyses that excluded women who had lived in traditional housing for much of the previous two months yielded similar results. The only notable differences were that the disparities in lifetime substance abuse between women who were and were not chronically homeless were accentuated.

We performed Pearson chi-square tests to examine bivariate associations between selected characteristics and perceived deterrents to contraceptive use. Deterrents were dichotomized into big problem or small or no problem, and multiple logistic regression analyses were performed to identify the independent predictors of each type of perceived deterrent. We examined zero-order correlations and tolerances to check for multicollinearity. All analyses reported here were weighted. Data analyses were conducted using SAS and Stata statistical software packages.[12]

RESULTS

Of the 229 chronically homeless women in the sample, 17% were aged 15-24, 44% were 25-34 and 39% were 35 or older (Table 1, page 279); the mean age of these women was 32 (not shown). Six in 10 were black and had graduated from high school; two-thirds had never been married. Nearly a quarter of women were pregnant or had been in the past year. On average, women reported having vaginal sexual intercourse once a week (not shown). Similar proportions reported never or rarely using contraceptives in the past year, using contraceptives occasionally and using them all of the time. Eighty-four percent of women had lived mainly in sheltered housing within the last 60 days, and the remainder had lived mainly outdoors; inconsistent contraceptive use was more common among homeless women living outdoors than among those living in shelters (54% vs. 30%—not shown). Almost half of the sample reported being depressed within the last year and having a lifetime history of alcohol abuse; three in five had a lifetime history of drug abuse. On average, women had spent 10 months of the last year and nearly four years of their entire lives being homeless (not shown).

A substantial proportion (13-27%) of homeless women reported having "a big problem" with each deterrent to contraceptive use studied (Table 2). The perceived deterrents most commonly cited as being big problems were side effects (27%), fear that birth control methods are harmful to one's health (26%), having a partner who dislikes birth control (23%) and cost (20%).

Homeless women who reported having a big problem with deterrents to contraceptive use were often less likely than those who did not to use contraceptives consistently. Among women who reported having a big problem with one of the deterrents studied, 36-69% reported using contraceptives rarely or never; only 11-34% always practiced contraception. In contrast, 35-44% of homeless women who reported no problem with these perceived deterrents used contraceptives all of the time, and 22-34% practiced contraception rarely or never.

In bivariate analyses, various perceived contraceptive deterrents were associated with

chronically homeless women's age, race and ethnicity, and education (Table 3). Homeless women between the ages of 15 and 24 were the most likely to report having a big problem with not knowing which method to use; women aged 35-44 were the most likely to report having a big problem with discomfort, but were the least likely to not know how to use a method. Black women were the most likely to report not having anywhere to store methods, believing that contraceptives feel uncomfortable or unnatural, and being concerned about the possible health risks associated with birth control. In contrast, Hispanic women were the most likely to cite not knowing how to use contraceptives or which method to use and having a partner who dislikes contraceptives as big problems deterring them from using birth control; Hispanic women were relatively unlikely, however, to believe that contraceptives felt uncomfortable or unnatural. Women who had not graduated from high school were more likely than those who had to report having a big problem with not having a place to store methods, not knowing how to use contraceptives and having a partner who dislikes contraceptives.

Furthermore, many of the perceived contraceptive deterrents were associated with women's recent modal living place and their substance abuse and depression histories. Women living in shelters were more likely than those living outdoors to report that not knowing which method to use, side effects, health risks and feeling that contraceptives are uncomfortable or unnatural were problems that deterred them from using contraceptives, but were less likely to report having problems with storing or knowing where to get methods. Greater proportions of women with a lifetime history of drug abuse than those without reported having a big problem with seven of the nine perceived deterrents studied. One-third of women with a lifetime history of alcohol abuse or a recent history of depression reported that health risks were a major deterrent; women with a lifetime history of alcohol abuse also were concerned with not having a place to store methods, and those recently suffering from depression, with having a partner who dislikes contraceptives.

Analyses that adjusted for all the characteristics in Table 3 suggested that certain characteristics are independently associated with elevated odds of perceiving deterrents to contraceptive use (Table 4). Black women were significantly more likely than whites and members of other racial or ethnic groups[‡] to cite not having a place to store methods, not knowing which methods to use, feeling that methods are uncomfortable or unnatural and fearing that contraceptives are harmful to one's health as major deterrents to contraceptive use (odds ratios, 3.3-6.0). Hispanic women had elevated odds of not knowing how to use a method or which method to use (9.6-9.8). Having a lifetime history of drug abuse was associated with reporting that not knowing how to use methods or which methods to use and cost were big problems deterring contraceptive use (5.2-7.7); having a recent history of depression was associated with not knowing where to get contraceptives (2.4). Women younger than 25 appeared to be more likely than those aged 35-44 to not know how to use contraceptives (5.7). Although this result was not quite significant at the p=.05 level, it is supported by the bivariate analyses and would probably have been significant at a lower alpha level if the sample size had been larger.

Other characteristics were associated with decreased odds of perceiving deterrents to contraceptive use. Women who had graduated from high school were less likely than

those who had not graduated to cite having a partner who dislikes birth control as a problem that deters them from practicing contraception (0.3). Living outdoors was associated with decreased odds of reporting that side effects, discomfort and health risks of contraceptives were big problems (0.1-0.3); having a lifetime history of alcohol abuse was associated with decreased odds that not knowing how to use a method was a deterrent (0.2).

DISCUSSION

The chronically homeless women in this study reported having substantial deterrents to contraceptive use. Like women in the general population,[13] homeless women who perceived major deterrents were less likely than others to use contraceptives consistently. Understanding women's perceptions of deterrents to contraceptive use is a first step toward encouraging them to practice contraception consistently and, thereby, reducing unintended pregnancies in this population.

Our findings suggest that the type and magnitude of perceived contraceptive deterrents vary by social and demographic backgrounds and behavioral characteristics. For example, homeless Hispanic women were much more likely than white women to report having problems with not knowing how to use contraceptives and deciding which method to use. These results may reflect a relative lack of knowledge about contraception among Hispanic women, perhaps because of gender roles, religious prohibition or the strong value placed on motherhood among Hispanics;[14] lack of access to Spanish-language information about contraception may accentuate the problem for some homeless Hispanic women. Furthermore, in bivariate analysis, Hispanic women were significantly more likely than white women to report that having a partner who dislikes contraceptives was a major deterrent. Although the association was not significant in multivariate analyses, this finding is consistent with studies that show Hispanic women to be particularly concerned with their partners' attitudes about contraceptive use.[15] Intervention programs designed to increase contraceptive use and prevent unintended pregnancy among homeless Hispanic women need to address these issues.

Homeless black women were more likely than white women to report that they were deterred from practicing contraception because they did not know which method to use, because they felt that contraceptives were unnatural or uncomfortable, and because they were scared of potential health risks. These findings are consistent with those from studies of black adolescents,[16] but it is unclear whether their concerns about contraceptive use are widely shared by black women in general. Our data suggest that intervention programs targeting homeless black women need to correct misinformation about health risks and address attitudinal deterrents regarding contraceptive use.

To do so, however, these programs must overcome the distrust that many blacks have for the health care system in general,[17] and for family planning in particular.[18] This distrust is a legacy of a long history of exploitation, insensitivity or indifference on the part of medical practitioners and researchers.[19] We do not know whether the distrust is greater among homeless black women than among the black community overall, but family planning service providers need to understand the deterrents to contraceptive use among homeless black women with this distrust in mind, and to address them in the

context of a trusting relationship and culturally competent care.

According to our bivariate analyses, women in their teens and early 20s were much more likely than those 25 and older to report not knowing which method to use, and more likely than those 35 and older to report not knowing how to use contraceptives, as major deterrents to contraceptive use. These findings are in accordance with previous research that suggests that adolescents have a relative lack of contraceptive knowledge and skills.[20] Similarly, women who had not finished high school were more likely than those who had to be deterred from using contraceptives because they did not know how to use them. In the general population, higher educational level is associated not only with better contraceptive use but with the choice of more effective methods.[21] At both the bivariate and the multivariate levels, homeless women who had not graduated from high school also were more likely than those who had to report not using contraceptives because their partner does not like them. Among women who often feel powerless, lack of education may be particularly disempowering in negotiating contraceptive use with male partners. Closing the knowledge gap and involving male partners may increase contraceptive use among younger and less-educated homeless women.

Previous research suggests an association between substance use and nonuse or poor use of contraceptives in the general population;[22] however, the relationship disappeared in analyses controlling for the confounding effects of other life factors, suggesting that both substance use and contraceptive nonuse may be part of a more general syndrome of risk-taking behavior and troubled life circumstances.[23] Our findings of multiple perceived deterrents among homeless women with a history of drug abuse support the idea that they probably experience a chaotic lifestyle in which contraception is not a priority. Efforts to encourage contraceptive use and reduce unintended pregnancies among homeless women with substance abuse problems may require a comprehensive program integrating multiple interventions that simultaneously address the nature of women's substance abuse history and the multitude of their perceived deterrents to contraceptive use.

Interestingly, homeless women who lived primarily outside were less likely than those who lived primarily in sheltered housing to report being concerned about not knowing which method to use and the discomfort, side effects and health risks of contraceptives. These finding may reflect their greater resourcefulness and lower sense of vulnerability. However, since inconsistent contraceptive use was more common among homeless women living outdoors than among those living in sheltered conditions, another possible explanation may be that women living in sheltered housing are more attuned to their needs than are women living outdoors and, therefore, are more aware of contraceptive deterrents.

Study Limitations

Our study had several limitations. First, we restricted the sample to women who had been homeless for more than six of the past 12 months. This restriction enhanced the internal validity of the study, but reduced its generalizability. The homeless population in Los Angeles and elsewhere consists of a very heterogeneous group of individuals, many of whom cycle in and out of homelessness.[24] The patterns of and deterrents to

contraceptive use among the transiently homeless may differ from those of the chronically homeless.

Second, we asked respondents whether each of the nine deterrents had been a big problem, a small problem or not a problem for them in using contraceptives. Thus, the questions were not method-specific. Some women may have been thinking about condoms when they reported that having a partner who dislikes contraceptives is a major deterrent, while other women may have been thinking about oral contraceptives when they identified side effects or health risks as being a big problem. Nonetheless, many perceived deterrents predicted nonuse or rare use of any method, despite such imprecise wording. Moreover, some reported deterrents were consistent with documented contraceptive preferences. For example, black women were more likely than whites to report concerns about the health risks of contraceptives; in another study, we found that homeless blacks were less willing than other homeless women to use hormonal contraceptives.[25]

Another limitation was that this study addressed only perceived deterrents to contraceptive use. When women decide whether to practice contraception, they have to take into account all the burdens and benefits.[26] Other factors, such as self-esteem, being in an abusive relationship and history of violent victimization and posttraumatic stress disorder, may have substantial effects on contraceptive use. Furthermore, expected psychological gains from becoming pregnant may add to women's ambivalence about practicing contraception.[27] These considerations may help explain why substantial proportions of women who reported that the nine deterrents studied were either no problem or a small problem used birth control rarely or never in the past year. Perceived deterrents are only part of the picture, albeit an important one.

Policy Implications

Our findings have several important program and policy implications. First, the heterogeneity of perceived contraceptive deterrents reported by the women in our study suggests that a uniform approach to increasing contraceptive use is unlikely to be effective for the entire homeless population. Family planning services need to be tailored to address the perceived contraceptive deterrents of particular subpopulations. Second, the multiplicity of deterrents to contraceptive use reported by many homeless women also suggests that a single approach is unlikely to be effective. Instead, family planning services for these women need to be integrated into an accessible, comprehensive, coordinated and continuous system of health care and social services. Lastly, the heterogeneity and multiplicity of perceived deterrents and the need for more culturally competent and socially integrated services identified in this study suggest that more resources and further research are needed to improve the reproductive health of homeless women.

References

1. Johnson A and Kreuger L, Toward a better understanding of homeless women, *Social Work,* 1989, 34 (6):537-540; Mills C and Ota H, Homeless women with minor children in the Detroit metropolitan area, *Social Work,* 1989, 34(6):485-489; Hodnicki D, Horner S and Boyle J, Women's perspectives on homelessness, *Public Health Nursing,* 1992, 9(4):257-262; and Merves S, Homeless women: beyond the bag lady myth, in: Robertson M and Greenblatt M, eds., *Homelessness: A National Perspective,* New York: Plenum Press, 1992, pp. 229-244.

2. Burt M et al., *Homelessness: Programs and the People They Serve—Findings of the National Survey of Homeless Assistance Providers and Clients,* 1999, <http://www.urban.org/Template.cfm?Section=ByAuthor&NavMenuID=63&template=/TaggedContent/ViewPublication.cfm&PublicationID=7310>, accessed Jan., 2000.

3. Bassuk E et al., The characteristics and needs of sheltered homeless and low-income housed mothers, *Journal of the American Medical Association,* 1996, 276(8):640-646; Bassuk E, Browne A and Buckner J, Single mothers and welfare, *Scientific American,* 1996, 275(4):60-67; and Robrecht L and Anderson D, Interpersonal violence and the pregnant homeless woman, *Journal of Obstetric, Gynecologic and Neonatal Nursing*, 1998, 27(6):684-691.

4. National Center for Health Statistics (NCHS), *National Survey of Family Growth: Cycle IV,* Hyattsville, MD: NCHS, 1995.

5. Bailey S, Camlin C and Ennett S, Substance use and risky sexual behavior among homeless and runaway youth, *Journal of Adolescent Health,* 1998, 23(6):378-388; Ennet S et al., HIV-risk behaviors associated with homelessness characteristics in youth, *Journal of Adolescent Health,* 1999, 25(5):344-353; and Booth R, Zhang Y and Kwiatkowski C, The challenge of changing drug and sex risk behaviors of runaway and homeless adolescents, *Child Abuse and Neglect,* 1999, 23(12):1295-1306.

6. Brown SS and Eisenberg L, eds., *The Best Intentions: Unintended Pregnancy and the Well-Being of Children and Families,* Washington, DC: National Academy Press, 1995.

7. Henshaw S, Unintended pregnancy in the United States, *Family Planning Perspectives,* 1998, 30(1):24-29.

8. Sumner G et al., Weighting for period perspective in samples of the homeless, *American Behavioral Scientist,* 2001, 45(1):80-104.

9. Rost K, Burnam M and Smith G, Development of screeners for depressive disorders and substance disorder history, *Medical Care,* 1993, 31(3):189-200.

10. Gillmore M et al., Substance use and other factors associated with risky sexual behavior among pregnant adolescents, *Family Planning Perspectives,* 1992, 24(6):255-261 & 268; and Kowaleski-Jones L and Mott F, Sex, contraception and childbearing among high-risk youth: do different factors influence males and females? *Family Planning Perspectives,* 1998, 30(4):163-169.

11. Gelberg L and Arangua L, Homeless Persons, in: Andersen RM, Rice TH and Kominski GF, eds., *Changing the U.S. Health Care System: Key Issues in Health Services, Policy, and Management,* second ed., San Francisco: Jossey-Bass Publishers, 2001, pp. 332-386.

12. SAS Institute, *Version 6.12,* Cary, NC: SAS Institute, 1999; and STATA, *STATA, Version 6.0,* College Station, TX: STATA Press, 1999.

13. Jones KP, Oral contraception: current use and attitudes, *Contraception,* 1999; 59(Suppl. 1):17-20; and Beckman L and Harvey SM, Factors affecting the consistent use of barrier methods of contraception, *Obstetrics & Gynecology,* 1996, 88(3):65-71.

14. Mays V and Cochran S, Issues in the perception of AIDS risk and risk reduction activities by black and Hispanic/Latina women, *American Psychologist,* 1988, 43(11):949-957; Kline A, Kline E and Oken E, Minority women and sexual choice in the age of AIDS, *Social Science and Medicine,* 1992, 34(4):447-457; Solomon M and DeJong W, Preventing AIDS and other STDs through condom promotion: a patienteducation intervention, *American Journal of Public Health,* 1989, 79(4): 453-458; and Marín BV et al., Acculturation and gender differences in sexual attitudes and behaviors: Hispanic vs. non-Hispanic white unmarried adults, *American Journal of Public Health,* 1993, 83(12): 1759-1761.

15. Marín BV et al., 1993, op. cit. (see reference 14); and Amaro H, Love, sex, and power, *American Psychologist,* 1995, 50(6):437-447.

16. Meyers A and Rhodes J, Oral contraceptive use among African-American adolescents: individual and community influences, *American Journal of Community Psychology,* 1995, 23(1):99-115.

17. Freimuth V et al., African Americans' views on research and the Tuskegee syphilis survey, *Social Science and Medicine,* 2001, 52(5): 797-808.

18. Brown SS and Eisenberg L, 1995, op. cit. (see reference 6).

19. Freimuth V et al., 2001, op. cit. (see reference 17).

20. Hillard P, Oral contraception noncompliance: the extent of the prob-lem, *Advances in Contraception,* 1992, 8 (Suppl. 1):13-20.

21. Tanfer K, Cubbins L and Brewster K, Determinants of contraceptive choice among single women in the United States, *Family Planning Perspectives,* 1992, 24(4):155-173.

22. Gillmore M et al., 1992, op. cit. (see reference 10).

23. Brown SS and Eisenberg L, 1995, op. cit. (see reference 6).

24. Burt M et al., *Homelessness: Programs and the People They Serve,* Washington, DC: Interagency Council on Homelessness, 1999.

25. Gelberg L et al., Use of contraceptive methods among homeless women for protection against unwanted pregnancies and STDs: prior use and willingness to use in the future, *Contraception,* 2001, 63(5): 277-281.

26. Zabin L, Addressing adolescent sexual behavior and childbearing: self-esteem and social change, *Women's Health Issues,* 1994, 4(2):93-97.

27. Anderson E, *Sexuality, Poverty and the Inner City,* Menlo Park, CA: Henry J. Kaiser Family Foundation, 1994.

Acknowledgment

The research on which this article is based was supported in part by grant HS 08323 from the Agency for Healthcare Research and Quality, and in part by the Robert Wood Johnson Foundation Generalist Physician Faculty Scholars Program.

---

*We focused our study on women aged 15-44, to follow the National Survey of Family Growth's definition of reproductive age.

†Congress passed the McKinney Act in July 1987, in response to findings from a number of private studies delineating health problems among homeless populations. It was the government's first attempt at a long-term national health policy to address the needs of homeless persons by providing them with a network of primary health service programs. The McKinney Act defines "homeless" individuals as those people who lack a fixed, regular and adequate nighttime residence or who have a primary nighttime residence that is a supervised publicly or privately operated shelter designed to provide temporary living accommodations; a public or private place that provides a temporary residence for individuals intended to be institutionalized; or a public or private place not designed to be, or ordinarily used as, a sleeping accommodation for human beings.

‡In multivariate analyses, white women and those of "other" racial and ethnic groups were combined into one category, because the "other" category was not big enough to be analyzed separately.