POPULATIONS AT RISK

Health Care for Homeless Women

Unmet Needs and Barriers to Care

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OBJECTIVE: Homelessness is a significant and growing problem in the United States. Women and families are the fastest growing segments of the homeless population. Homelessness increases the risk of having health problems and encountering barriers to care. This study determines how much perceived unmet need for medical care there is among homeless women, what homeless women perceive to be barriers to health care, and how barriers and other factors are associated with unmet needs.

DESIGN: Cross-sectional study of homeless women, utilizing structured interviews.

SETTING AND PARTICIPANTS: Community-based probability sample of 974 homeless women aged 15 to 44 years.

MAIN OUTCOME MEASURES: Perceived unmet need for medical care in the past 60 days. Relationship between unmet need and demographic variables, place of stay, source of health care, insurance, and perceived barriers to care.

RESULTS: Of the 974 women, 37% reported unmet need for medical care. Controlling for other factors, the odds of unmet need were lower among those with a regular source of care (odds ratio [OR] to .35, 95% confidence interval [CI], .21 to 58), while having health insurance was not significantly associated. The odds of unmet need were higher among those who experienced the barriers: not knowing where to go (OR 2.27, 95% CI, 1.40 to 3.69), long office waiting times (OR 1.89, 95% CI 1.27 to 2.83) and being too sick to seek care (OR 2.03, 95% CI, 1.14 to 3.62).

CONCLUSIONS: There is significant unmet need for medical care among homeless women. Having a regular source of care was more important than health insurance in lowering the odds of unmet need. Homeless women must be educated regarding sources of care, and clinics serving the homeless must decrease waiting times.

KEY WORDS: barriers; homeless; unmet need; vulnerable population; women.

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Homelessness is a significant and growing problem in the United States. A recent study by the National Law Center on Homelessness and Poverty estimates that over 700,000 people are homeless on any given night and up to 2 million people experience homelessness during 1 year. Furthermore, it is estimated that 14% of the U.S. housed population have been homeless in their lifetime. While the majority of the homeless are still men, studies have found women and families are the fastest growing segments of the homeless population. In its 1998 survey of 30 American cities, the U.S. Conference of Mayors found families comprised 38% of the homeless population. This study also concluded that a disproportionate number of racial and ethnic minorities are homeless.

Living without a home increases one's health risks. The homeless have more morbidity, as well as higher age-adjusted mortality rates than the general population.³ A 1994 study of 6,308 homeless persons in Philadelphia found the age-adjusted mortality rate among the homeless was 3.5 times that of Philadelphia's general population.³ Previous research has also shown the homeless have higher rates of hypertension, arthritis, mental illness, victimization, tuberculosis, and substance abuse.^{4,5}

Despite the higher rates of health problems, the homeless are less likely to have a regular source of health care, health insurance, a steady income, or social support. The homeless are less likely to obtain preventive medical services, even for children. Additionally, they are more likely to have experienced barriers to health care, such as not knowing where to go for care, long waiting times, and high costs.

Previous research on homeless women is limited. While studies have identified numerous potential "perceived barriers" to health care, the majority of studies are based on convenience samples of women in clinics or shelters. Additionally, the studies that utilized probability samples did not determine the effect of multiple "perceived barriers" to care on unmet need for medical care. Alalia Table 1 details previous research study characteristics and barriers to care identified.

Our study, using data from the University of California Los Angeles (UCLA)/RAND Homeless Women's Health Project, is the first representative, probability sample of homeless women where perceived barriers to care are used to predict unmet need for health care. We address 5 research questions. How much unmet need for medical care is there

| Author | Kushel | Rosenheck | Cousineau | Wood | Robertson | Riemer | Jezewski | Gelberg | O'Toole |
|-------------------------|--------|-----------|-----------|------|-----------|--------|----------|---------|---------|
| Study characteristics | | | | | | | | | |
| Number in study | 2974 | 1828 | 134 | 194 | 238 | 50 | NA | 363 | 373 |
| Probability sample | yes | no | no | no | no | no | no | yes | yes |
| Quantitative | yes | yes | yes | yes | yes | yes | no | yes | yes |
| Barriers | | | | | | | | | |
| Transportation | | | X | X | | X | X | | |
| Not knowing where to go | | X | X | X | X | | | | |
| Cost of care | | X | X | X | X | | | | |
| Waiting times | | X | X | X | | X | | | |
| Health insurance | X | | X | | X | | X | | X |
| Insensitivity | | | | | | X | X | | |
| Homeless status | | | | | | | X | | |
| Competing needs | | | | | | | X | X | |
| Communication problems | | | | | | | | X | |
| Bureaucratic systems | | | | | | | X | | |
| Previously denied care | | X | | | | | | | |
| Relate barriers to | | | | | | | | | |
| Unmet need | yes | no | some | yes | yes | no | no | yes | yes |
| Where live | yes | yes | no | no | no | no | no | yes | yes |

Table 1. Characteristics of Previous Studies on Homeless Women and Barriers to Health Care

among homeless women? How does unmet need vary by race, age, insurance, time homeless, usual place of stay, or health status? What do homeless women perceive to be their barriers to health care? How do perceived barriers relate to unmet need for medical care? What do homeless women believe would facilitate their access to health care?

METHODS

The Homeless Women's Health Project is a community-based probability sample of homeless women of reproductive age in Los Angeles (LA) County. Data were collected through structured interviews between January and October 1997. The study was approved by the Institutional Review Boards at UCLA and RAND.

Study Population

Inclusion criteria for this study include homeless women aged 15 to 44 years. A woman was defined as homeless if she spent any of the past 30 nights in a mission, homeless shelter, 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, the street, or other outdoor public place. Additionally, a woman was defined as homeless if she spent any of the past 30 nights in a rehabilitation program for homeless people and also stayed in one of the settings mentioned above during any of the 30 nights before she entered the program.

Sample

To construct a probability sample, reviews of LA County social service directories and conversations with

expert informants were used to identify 236 shelters and 93 meal programs serving homeless women in LA County. The exclusive focus on shelters and meal programs excluded approximately 11% of homeless women who do not use these services. ¹⁵

The 329 sites were canvassed by telephone to determine the number of visits made by homeless women in a typical week and other characteristics to determine a measure of size for sampling purposes. At the time of sampling, one third of the sites had closed or did not serve homeless women, while other sites were excluded due to small size or irregular operations. This reduced the sampling frame to 102 sites.

Sampling proceeded in 2 stages. First, 78 sites were selected by stratified random sampling. Sites were sampled with probabilities proportional to their measure of size. Second, visits by homeless women were randomly sampled with equal probabilities. Site visits were random at the week level, but were controlled so each site was visited in all 4 quarters of the month. Because the selection of homeless-woman visits was probability based, the selection of eligible women was also probability based. Analysis weights for each interviewed woman were constructed based on their probability of selection. ¹⁶

Interview Measures. The theoretical framework for predicting unmet need was adapted from the Gelberg and Andersen Behavioral Model for Vulnerable Populations. Using this model, homeless persons' demand for health services can be characterized, keeping in mind there is significant variation within the population. This revision of the behavioral model of health services utilization, first described by Andersen, still includes the original predisposing variables, enabling variables, and need variables.¹⁷

Table 2. Distribution of Variables and Unadjusted Odds of Perceived Unmet Need for Medical Care by Predisposing, Enabling, and Need Variables in a Random Sample of 974 Homeless Women

| | %* | Odds Ratio* | 95% Confidence Interval |
|--|---------|-------------|------------------------------------|
| Reported unmet need for medical care (past 60 days) | 37 | | |
| Predisposing variables | | | |
| Race | | | |
| White (reference) | 16 | 1.00 | |
| Black | 55 | 0.66 | $0.46 \text{ to } 0.95^{\dagger}$ |
| Hispanic | 14 | 0.85 | 0.53 to 1.37 |
| Other | 14 | 1.60 | 1.01 to 2.54 [†] |
| Age | | | |
| 18 to 24 years (reference) | 18 | 1.00 | |
| 25 to 34 years | 35 | 1.38 | 0.93 to 2.06 |
| 35 to 44 years | 47 | 1.53 | $1.05 \text{ to } 2.24^{\dagger}$ |
| Education | | | |
| 0 to 12 years (reference) | 73 | 1.00 | |
| ≥ 13 years | 27 | 2.10 | 1.57 to 2.80 [‡] |
| Mental health/substance abuse | | | |
| At risk for psychological distress based on MHI [§] | 49 | 1.72 | 1.32 to 2.23 [‡] |
| Depressive disorder 12 months | 49 | 1.59 | 1.22 to 2.07 [‡] |
| Lifetime history of alcohol abuse | 40 | 1.62 | 1.24 to 2.12 [‡] |
| Lifetime history of drug abuse | 48 | 1.70 | 1.30 to 2.21 [‡] |
| Homeless history | | | |
| Homeless 1 year or more | 25 | 0.52 | $0.38 \text{ to } 0.72^{\ddagger}$ |
| Usual place of stay past 60 days | | 0.02 | 0.00 to 02 |
| Shelter (reference) | 61 | 1.00 | |
| Limited housing | 7 | 3.72 | 2.15 to 6.43 [‡] |
| Street | 12 | 1.08 | 0.70 to 1.66 |
| Exit housing | 21 | 1.08 | 0.77 to 1.50 |
| Victim of violence | | 1.00 | 0 to 1.00 |
| Raped at least once in past 12 months | 13 | 2.09 | 1.42 to 3.08 [‡] |
| Physically assaulted at least once in past 12 months | 34 | 1.85 | 1.41 to 2.43 [‡] |
| Enabling variables | 01 | 1.00 | 1.11 to 2.10 |
| Regular source of health care | 61 | 0.39 | 0.30 to 0.52 [‡] |
| Any insurance | 54 | 0.82 | 0.63 to 1.07 |
| Any encouragement | 43 | 1.66 | 1.27 to 2.16 [‡] |
| Case manager | 56 | 0.78 | 0.60 to 1.01// |
| Any children with her | 42 | 1.31 | 1.00 to 1.70 [†] |
| Income (past 30 days mean) and log of income used for OR | (\$422) | 1.06 | 1.00 to 1.13 [†] |
| Need variables | (Ψ 122) | 1.00 | 1.00 to 1.10 |
| At least 3 of 11 serious physical health symptoms past 12 months | 39 | 2.61 | 1.99 to 3.41 [‡] |
| Self-reported health status | 00 | 2.01 | 1.00 to 0.11 |
| Good/very good/excellent (reference) | 61 | 1.00 | |
| Fair/poor | 39 | 2.67 | 2.04 to 3.50 [‡] |
| Physical Function Index (Mean) ⁴ | (1.8) | 1.16 | 1.09 to 1.23 [‡] |
| I mysical runction muck (wiedn) | (1.0) | 1.10 | 1.03 to 1.25 |

^{*} Percent and unadjusted odds ratios weighted by sampling weights.

However, it also includes new domains within each category that help care givers, researchers, and policy makers understand the health and health care seeking behavior of vulnerable populations.¹⁸

Women were given 50-minute face-to-face interviews. Unmet need for medical care was based on the homeless woman's perceptions of her need for health services. A woman had perceived unmet need if she answered yes to: "In the last 60 days, was there any time when you needed to see a doctor or nurse practitioner but didn't." Table 2 details the potential predictors included in the interview.

Predisposing variables included self-reported race, age, education level, mental health, substance abuse, homeless history, and victimization. Mental health was assessed using the RAND Mental Health Index (MHI-5). ^{19,20} This contains 5 items with responses on a 6-point scale ranging from "all of the time" to "none of the time." The MHI-5 has well-established reliability and validity in general population studies, good reliability in homeless studies, and detects significant psychological disorders. ²¹ The internal consistency coefficient for the MHI-5 scale was 0.82 in this study. Mean-item scores were computed and linearly

[§] RAND Mental Health Index (MHI-5). A 5-item scale; scores less than 66 suggest high risk for mental health problems.

 $^{^{\}P}$ Physical Function Index, set of 6 practical health-related questions to determine level of disability. // .10, † .05, ‡ .001.

Table 3. Perceived Barriers for Homeless Women and Unadjusted Odds of Unmet Need for Those Who Felt Each Barrier was a "Big Problem" in Obtaining Health Care

| | N = 974 | | | | | |
|---|----------------|-----------------|------------------------------------|--|--|--|
| Perceived Barrier | (%)* | Odds Ratio (OR) | 95% Confidence Interval (CI) | | | |
| Long office wait time | 39 | 2.96 | 2.26 to 3.89 [†] | | | |
| High cost of health care | 38 | 2.01 | $1.53 \text{ to } 2.63^{\dagger}$ | | | |
| Seeing different doctors each visit | 30 | 2.99 | $2.25 \text{ to } 3.98^{\dagger}$ | | | |
| Not knowing where to go for care | 28 | 2.61 | 1.96 to 3.48 [†] | | | |
| Fear of bad news | 31 | 2.01 | $1.52 \text{ to } 2.66^{\dagger}$ | | | |
| Long travel time | 30 | 1.48 | 1.11 to 1.96 [‡] | | | |
| Busy with other needs | 25 | 1.51 | $1.12 \text{ to } 2.03^{\ddagger}$ | | | |
| Inconvenient clinic hours | 20 | 2.46 | $1.78 \text{ to } 3.39^{\dagger}$ | | | |
| No female doctors | 19 | 2.23 | 1.61 to 3.09 [†] | | | |
| Too sick to seek care | 15 | 2.88 | $2.00 \text{ to } 4.13^{\dagger}$ | | | |
| Fear that visit won't be confidential | 21 | 1.31 | 0.95 to 1.80 [§] | | | |
| Difficulty remembering when to go for appointment | 16 | 2.03 | $1.44 \text{ to } 2.87^{\dagger}$ | | | |
| Unpleasant or embarrassing exams | 18 | 1.33 | 0.95 to 1.86 [§] | | | |
| Providers will find out about homeless status | 14 | 2.20 | $1.52 \text{ to } 3.17^{\dagger}$ | | | |
| | $n = 407^{//}$ | | | | | |
| No babysitter | 24 | 1.55 | 0.97 to 2.46 [§] | | | |
| Fear of losing kids | 16 | 1.50 | 0.89 to 2.55 | | | |

^{*} Weighted by sampling weights.

//Unweighted number of women who reported having children with them.

transformed to a 0 to 100 range. Scores less than 66 suggest high risk for mental health problems. ²² Lifetime substance abuse was determined by the Rost/Burnam alcohol screener and the Rost/Burnam drug screener. A 12-month history of depression was determined by the Rost/Burnam depression screener. ²⁰ This contains 2 items from the Diagnostic Interview Schedule (DIS)²³ and 1 from the Center for Epidemiological Studies Depression Scale (CES-D). ^{24,25} The sensitivity of this screener was 81% and the specificity was 95% when compared with the full DIS. ²³

Usual place of stay in the past 60 days included 4 categories: *exit housing* defined as staying with friends or family members where they were not welcome to stay for extended periods of time, *limited housing* defined as staying in indoor places not intended for shelter such as cars, *shelters* defined as either a homeless shelter or a hotel paid by a voucher; or on the *streets*. A history of victimization was determined by 2 questions: how many times in the past 12 months they were made to have vaginal, oral, or anal sex by force or threat of harm, ²⁵ and if they were physically assaulted at least once in the past 12 months.

Enabling variables include income level, a regular source of health care, health insurance, any encouragement to seek health care, or a case manager. Further, having any children with her (or not having children).

Need variables included health status as reported by 3 measures. First, the individual's report of serious health symptoms during the past 12 months. Women were asked if they experienced each of 11 symptoms (such as chronic cough or shortness of breath) all requiring medical attention. Second: "in general would you say your health is:

excellent, very good, good, fair, or poor". This has been shown to be a valid indicator of general health. $^{26.27}$ Third, a physical function index. This 6-item instrument, developed from the RAND Health Insurance Experiment, includes practical health-related questions to determine disability level. This scale has been used in previous studies of homeless people. $^{28-30}$

Perceived barriers to care are listed in Table 3. The interview contained 16 potential barriers developed from literature review and interviews with homeless women. Women were asked whether each barrier was a big problem, small problem, or not a problem for them in getting health care.

The women were asked whether each of 11 facilitators would be very helpful, somewhat helpful, or not helpful in getting health care. The facilitators include: living in a house or an apartment, a doctor or nurse coming to you to provide health care, weekend or evening clinic hours, free transportation to health care, receiving a gift such as food or money when coming for a health care appointment, help from shelters or soup kitchens in finding health care, getting help for all health problems at one place, getting health care and social services at the same place, getting health care at the same time your children get health care, being able to shower where you get health care, and having family and friends encourage you to get health care.

Data Analysis. Univariate analysis was performed to characterize the sample and to describe the perceived barriers and facilitators. Bivariate analyses were performed to determine the relationship between predisposing variables, enabling variables, need variables, and perceived barriers and perceived unmet need for care.

^{§ .10, ‡ .01, † .001.}

Multiple variable logistic regression was performed with unmet need for medical care as the dependent variable. The Gelberg-Andersen model was used as the theoretical framework for predicting unmet need. Forward and backward stepwise regression were used — set to retain variables significant at the .05 level. The potential predictors are detailed in Table 2. Because drug abuse, alcohol abuse, and psychological disorders often coexist and the combination could have additional effects on a woman's unmet need for health care, we tested multiple interaction terms including: interactions between drug and alcohol use, drug use and the MHI-5, alcohol use and the MHI-5, depression and drug use, and depression and alcohol use. Multicolinearity was evaluated using tolerance and variance inflation tests and was not found to be a problem. To determine which individual barriers were significantly associated with unmet need, controlling for other factors, we added the barriers to the final regression model using forward and backward stepwise techniques to select the significant barriers.

RESULTS

Of the 2,428 homeless-woman visits selected for potential interviews, an estimated 1,668 were eligible by the study's definition of homelessness. Of the 1,668 eligible homeless-woman visits, 461 were identifiable repeats from previous occasions. We completed 974 unique, nonrepeat interviews. The overall response rate of 81% is the product of 2 component rates: response by sites, and response by selected visits.

Descriptive Statistics

Univariate analyses are presented in Table 2. Thirty-seven percent experienced unmet need for medical care. The majority were black and over age 24. Nearly half had a history of drug use. The majority had a regular source of care and approximately half had some form of health insurance.

Unadjusted Odds of Unmet Need

The unadjusted odds of unmet need by predisposing, enabling, and need variables are detailed in Table 2. We found women had higher odds of having unmet need for medical care if they were older, had more education, psychological disorders, alcohol or drug abuse, rape or other assault, stayed in limited housing (versus a shelter), received encouragement for health care, had children with them, higher incomes, experienced serious physical health symptoms, were in fair or poor health, and experienced physical dysfunction. Women had lower unadjusted odds of having unmet need if they were black (versus white), homeless for 1 year or more, or had a regular source of health care.

Table 3 details the percentage of homeless women who felt each barrier was a big problem for obtaining care,

and the unadjusted odds of unmet need. For almost every perceived barrier, the unadjusted odds of unmet need were 2 to 4 times higher among women who felt the barrier was a big problem compared with women who felt it was a small problem or not a problem.

Multiple Variable Logistic Regression

Table 4 provides the results of the multiple variable logistic regression predicting unmet need. There were no significant interaction terms. Neither race nor age variables were significant predictors. Factors associated with increased odds of unmet need include more than high school education compared to less than 12 years, a history of drug abuse, living in limited housing as compared to living in a shelter, having children with her, experiencing serious physical health symptoms, and being in fair or poor health. Protective variables of unmet need include being homeless for more than 1 year and having a regular source of health care. Having any health insurance was not significantly associated with unmet need.

When the individual barriers were added to the model, we found the specific barriers that were most important in their association with unmet need included not knowing where to go for care, long office waiting times, and being too sick to seek care.

Perceived Facilitators

The most frequently mentioned facilitators, felt to be very helpful in obtaining care by more than 65% of the women, were: receiving treatment for all health care problems at the same place; free transportation to health care; health care and social services at the same place; living in a house or apartment; weekend or evening clinic hours; and help from shelters or soup kitchens finding health care. Over half the women felt it would be helpful to have a doctor or nurse come to them, to have family and friends' encouragement, or to receive a gift such as food or money provided at appointments. The vast majority (81%) of women who had children with them felt getting health care at the same time as their children get care would be very helpful.

DISCUSSION

We found a significant degree of perceived unmet need among the homeless women: 37% of our sample felt there was a time in the past 60 days when they wanted to see a doctor or nurse practitioner but did not. Our data indicate the homeless have significantly more perceived unmet need than do the housed. The 1993 National Health Interview Survey found 21% of working age adults reported a perceived unmet health care need. However, in that survey, unmet need included both a delay in obtaining services and not receiving care; therefore the 21% is a high estimate for not obtaining care at all. This suggests the gap between the unmet need in the homeless and the unmet need in the housed is probably higher than these statistics indicate.

Table 4. Multiple Variable Logistic Regressions Predicting Unmet Need Among 974 Homeless Women: Separate Regressions With and Without Perceived Barriers

| | Witho | out Barriers | With Barriers | | |
|--|------------|-----------------------------------|---------------|------------------------------------|--|
| | Odds Ratio | 95% Confidence Interval | Odds Ratio | 95% Confidence Interval | |
| Predisposing Variables | | | | | |
| Education (0–12 reference) | | | | | |
| ≥ 13 years | 2.04 | 1.38 to 2.99* | 2.06 | 1.42 to 3.00* | |
| Mental health/substance abuse | | | | | |
| Lifetime history of alcohol abuse | 1.22 | 0.67 to 2.22 | 1.31 | 0.74 to 2.31 | |
| Lifetime history of drug abuse | 1.65 | 1.03 to 2.63 [†] | 1.63 | $1.04 \text{ to } 2.56^{\dagger}$ | |
| Homeless history | | | | | |
| Homeless ≥ 1 year | 0.41 | 0.24 to 0.70* | 0.39 | 0.22 to 0.67* | |
| Usual place of stay (shelter, reference) | | | | | |
| Limited housing | 2.31 | $1.12 \text{ to } 4.75^{\dagger}$ | 2.08 | $0.91 \text{ to } 4.76^{\ddagger}$ | |
| Street | 1.25 | 0.40 to 3.88 | 1.40 | 0.44 to 4.52 | |
| Exit housing | 0.96 | 0.59 to 1.57 | 0.98 | 0.60 to 1.60 | |
| Enabling variables | | | | | |
| Regular source of care | 0.35 | 0.21 to 0.58* | 0.44 | 0.28 to 0.70* | |
| Any insurance | 0.72 | 0.44 to 1.16 | 0.86 | 0.52 to 1.42 | |
| Any children with her | 1.93 | 1.21 to 3.10 [§] | 1.71 | $1.06 \text{ to } 2.74^{\dagger}$ | |
| Log of income | 1.07 | 0.99 to 1.16 [‡] | 1.09 | 1.01 to 1.19 [‡] | |
| Need variables | | | | | |
| Three or more serious symptoms | 2.23 | 1.45 to 3.42* | 1.94 | 1.31 to 2.88* | |
| Fair/poor health | 2.75 | 1.77 to 4.29* | 2.86 | 1.79 to 4.56* | |
| Perceived barriers | | | | | |
| Not knowing where to go for care | | | 2.27 | 1.40 to 3.69* | |
| Long office waiting times | | | 1.89 | 1.27 to 2.83§ | |
| Too sick to seek care | | | 2.03 | $1.14 \text{ to } 3.62^{\dagger}$ | |

[‡] .10, [†] .05, [§] .01, * .001.

The limitations of this study include the dependence on self-report for barriers and unmet need. Research has shown the homeless underreport health problems; when their report is compared to objective measures, there may have been more unmet need than we found. 32 Additionally, with a cross-sectional study, we were not able to demonstrate causation. The regressions demonstrate associations between the independent variables and unmet need. Furthermore, the women may have experienced specific barriers to care at an earlier point in time and thus the experience may not have been proximal to their unmet need. However, if the barriers were related to their prior experience they could still be problems, and the women's perception that these are problems still needs to be addressed. Although we did have a probability-based sample in LA County, we systematically excluded women who do not use shelters or meal programs. These are likely the most disaffiliated homeless women. Had we included them, we would have likely found more unmet need.

Similarly, our study was limited to women of reproductive age. Although women and families are the fastest growing segments of the homeless population, and reproductive age women constitute the majority of homeless women, we can not generalize our results to older homeless women. These older women would be less likely to have children with them and more likely to have chronic diseases which may alter their health care seeking behavior.³³

Finally, our results may not be generalizable to homeless women in other cities.

We were surprised race was not significantly associated with perceived unmet need for health care. In studies of the housed population, blacks and other minorities are less likely than whites to obtain necessary health care services. In our study, all of the women were highly vulnerable. This could perhaps neutralize race as a proxy for unmet need. Previous research on the homeless has provided mixed results regarding race and the use of health services. 32,34,35

The increased unadjusted odds of unmet need for those with a history of alcohol abuse and those with a history of drug abuse is not surprising. Drug use may increase the risk of trauma and is associated with increased risk of sexually transmitted disease, anemia, dental disease, heart disease, and breast disease. ^{36,37} Substance abuse can both predispose the women to health care needs, and can complicate their ability to pursue care. When homeless women do have contact with the health care system, they should be screened for drug and alcohol problems.

The increased unadjusted odds of unmet need for those with a history of victimization was not surprising. However, when we controlled for other factors, neither a history of rape nor other physical abuse was a significant predictor of unmet need. While it is well documented victimization is related to increased health care needs, 38 it was not found to be a major factor related to unmet needs for the homeless women in our study.

Another interesting finding is the trend toward higher odds of unmet need for women living in limited housing staying in an indoor place not intended for shelter such as a car compared to women in emergency shelters. Previous research on homeless women has found spending time "unsheltered" was associated with increased needs and increased unmet need for gynecologic care.³⁹ This mode of housing results in greater daily uncertainty. This could also be a marker for other problems making woman ineligible for a homeless shelter or to stay with family or friends. Others have suggested more research is needed to determine a link between housing and health. 40 Our findings show a clear association. Programs targeting homeless shelters exclusively could miss homeless women with the highest odds of unmet need for medical care. These findings support the need for greater outreach to remote and hidden sites such as abandoned buildings or cars.

Another group of homeless women to target for health services is women who have children with them. While only a quarter of the women surveyed who had children with them perceived a lack of a babysitter as a barrier to obtaining care, women who reported having children with them had higher odds of unmet needs when controlling for other factors. Further, we found 81% of the women who had children with them felt that obtaining health care at the same time that their children got health care would be very helpful to them. Interventions might target families by providing childcare services or outreach to the mother when services are provided to homeless children.

The 2 factors associated with lower odds of perceived unmet need in the multiple variable analyses were being homeless for 1 year or more and having a regular source of care. Women who were homeless for longer may have learned more about available services and may be better able to cope with their survival demands. It is encouraging that women with a regular source of care had less perceived unmet need. The regular source of care—a "medical home"—was found to be more important than health insurance.

The lack of association between having health insurance and perceived unmet need provides valuable insight into the problems of the homeless. Previous research supports the conclusion that insurance coverage is not sufficient to ensure the needs of the homeless are met. ⁴¹ Rather, nonfinancial barriers to care are greater factors.

We have provided evidence that a list of homeless women's perceived barriers to care can be used to help identify women with higher unmet need for medical care. The most important perceived barriers to care identified are not knowing where to go, long waiting times, and being too sick to seek care. When women visit meal programs and shelters they should be educated regarding available health services. Additionally, clinics serving the homeless must decrease waiting times. Because waiting times may be difficult to decrease (even the housed who utilize the County system or emergency departments face long waiting times), perhaps the perception of waiting can be changed. 42,43 This could be accomplished by providing

something valuable to do while waiting for health care — showers, laundry, health promotion education, social services, or vocational counseling. Finally, the problem of being too sick to seek care is difficult to address. Perhaps, if obtaining care was easier or more convenient, being sick would be less of a deterrent. Alternatively, increased outreach and prevention to help homeless women stay well or to help them address problems could prevent them from deteriorating to the extent that seeking care is difficult.

Homeless women's perceptions of facilitators for obtaining health care are logical, given the significant barriers identified. The vast majority said free transportation, treatment for all health care problems at the same place, and obtaining health care and social services at the same place would be very helpful.

It is important to understand these perceived barriers and facilitators to improve access to care for the homeless. By talking to homeless women and obtaining information from their perspective, we were able to show how their feelings relate to unmet need for medical care. With more attention to the needs of the homeless and further work toward decreasing their perceived barriers to care, we may decrease their excess burden of disease.

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