

LIFETIME AND FIVE-YEAR PREVALENCE OF HOMELESSNESS IN THE UNITED STATES: New Evidence on an Old Debate

Bruce Link, Ph.D., Jo Phelan, Ph.D., Michaeline Bresnahan, M.P.H., Ann Stueve, Ph.D., Robert Moore, Dr.Ph., Ezra Susser, M.D.

A 1990 household-based telephone survey of 1,507 people was followed up by surveying a subsample of those interviewed for the initial report. Results showed very high prevalence figures for homelessness, quite close to those found in the earlier survey. Moreover, using explicit and stringent definitions of literal homelessness and doubling up, most periods of homelessness were found to last for more than one month and, particularly with regard to literal homelessness, to involve serious deprivations and violent victimization.

With the emergence of a new form of homelessness in the late 1970s and early 1980s, an intense debate developed concerning the size of the homeless population. Extrapolating from reports of key informants located in the nation's largest cities, advocates for homeless people claimed that the number of homeless people in the United States was between two and three million (*Hombs & Snyder, 1982*). However, surveys that actually count currently homeless people have produced much smaller estimates (*Burt & Cohen, 1989; Rossi, Wright, & Fisher, 1987; Taeuber & Siegal, 1991*), a fact that prompted White (1992) to refer to the advocates' estimates as "lying for justice." But estimates based on survey data have also been challenged because they rely on

enumeration strategies that may underestimate the extent of homelessness in the nation (*Applebaum, 1987; Jahiel, 1992; Link et al., 1994; Marcuse, 1990*).

Because survey estimates of homelessness are generally considered more scientific and accurate than are estimates of lay informants, it is important to identify the ways in which surveys can lead to undercounts. First, they miss the so-called "hidden" homeless who sleep in automobiles, on the roofs of tenements, in camp grounds, or in other places that researchers cannot effectively search. Since they focus on literal homelessness, surveys also miss people who double up with kin or other network members rather than stay in shelters or on the streets.

Second, people may refuse to be inter-

This article was invited by the Editor. Research was supported by NIMH grant MH46101. Authors are at: Division of Epidemiology, Columbia University; and at New York State Psychiatric Institute (Link, Stueve, Moore, Susser), New York.

viewed or deliberately hide the fact that they are homeless, either because being homeless is stigmatizing or because they fear the imposition of unwanted social control. In one survey, for example, the interviewers identified enough people they suspected might be homeless, but who denied it when asked, to increase the number of homeless street people identified by 41.5%.

Third, surveys of currently homeless people seriously undercount those who experience relatively short or intermittent periods of literal homelessness. Ethnographic research shows that many homeless people use shelters only intermittently, relying on various forms of doubling up at other times (Hopper, Susser, & Conover, 1985). Such people are less likely to be counted in surveys covering a one-night or one-week period. The importance of this problem was dramatically demonstrated in a study conducted by Culhane and colleagues (1994) that used data on shelter admissions to produce unduplicated counts of the number of people entering shelters annually or for longer periods of time. This study estimated that 2.8% of the population of Philadelphia used shelters during a three-year period and that 3.3% of the population of New York City used them over a five-year period.

Finally, national estimates of the magnitude of the homeless population have had to extrapolate from data collected in urban settings to the nation as a whole. For example, Burt and Cohen (1989) surveyed homelessness in a sample of large cities and then "guesstimated" that rates in rural and suburban areas were one-third the rate in urban areas.

1990 STUDY

The 1990 survey by the authors (Link *et al.*, 1994) used a different strategy, that of a national household telephone survey, to identify formerly homeless people and provide life-time and five-year prevalence estimates of homelessness. While a house-

hold survey represents an unusual approach to the study of homelessness, it offers an effective means of learning about people who have been homeless at some time in the past. Moreover, studying formerly homeless people addresses the four criticisms of point-prevalence studies described above. People who may have been among the hidden homeless or have had relatively short or intermittent periods of literal homelessness are available for counting. In addition, those who might avoid, refuse to speak to, or deny their homelessness to an interviewer in a point-prevalence study may be more willing to report having been homeless in a telephone survey that assures anonymity and focuses on the past. Finally, by utilizing a nationwide household survey, it was possible to assess homelessness both within and outside urban areas. As a result, extrapolations from urban findings to suburban or rural homelessness were unnecessary.

The main purpose of the nationwide telephone survey was to assess public attitudes toward homeless people. However, the 1,507 randomly selected respondents were also asked, "Have you ever had a time in your life when you considered yourself homeless?" Those responding in the affirmative were asked further questions to determine whether they had been literally homeless or had doubled up, and whether the period of homelessness had occurred during the five-year period preceding the telephone interview.

Because the survey focused on people living in households, it could be expected to undercount homelessness. It missed currently homeless people and, by focusing on households with telephones, could not count periods of homelessness among the relatively poor segment of the population without telephones.

Findings

Surprisingly high prevalence rates of homelessness were nevertheless found. For all types of homelessness, including dou-

bling up, the results indicated that 14% of the total sample (by projection, 26 million people nationwide) had been homeless at some point in their lives and that 4.6% (8.5 million nationwide) had been homeless during the five-year period (1985–1990) immediately prior to the interview. When the definition was restricted to literal homelessness, lifetime prevalence was 7.4% (13.5 million nationwide). Slightly less than half of those who had ever been literally homeless—that is, those who reported sleeping in shelters, bus and train stations, abandoned buildings and the like—and 3.1% of the total sample (5.7 million people nationwide) had experienced homelessness of some type in the five-year period before the interview. These prevalence estimates called into question the much lower ones generated by point-prevalence studies and demonstrated that the rate at which our society generates homelessness has been vastly underestimated.

The results were questioned by some conservative commentators (*CNN Headline News, December 27, 1994*), who suggested that the study may have counted homeless experiences that were trivial, either because those who responded in the affirmative had defined the term too broadly or idiosyncratically, or because the experiences they described may have represented only one- or two-night stints of literal homelessness. Both of these possibilities seemed unlikely. Questions concerning personal experiences with homelessness were put near the end of a 40-minute interview that focused on homelessness; thus it seems doubtful that many respondents would have construed homelessness to include such experiences as mishaps during cross-country travels or “existential” homelessness, as suggested by the critics. Moreover, only 8% of those who reported homelessness had been homeless for less than a week. Nevertheless, because the study had relied on respondents’ own definitions of homelessness and did not ask specifically

about the duration of literal homelessness, the critics’ arguments could not be countered conclusively.

1994 FOLLOW-UP STUDY

A second study was therefore undertaken that would permit refinement of the analysis and address the questions raised by the conservative commentators. Specifically, subsamples of respondents from the initial study, including both those who had reported homelessness and those who had not, were reinterviewed. Explicit definitions of homelessness were developed, and more detailed data on the duration and experience of homelessness were collected. These new data allowed reassessment of the prevalence of a more explicitly defined homelessness, and assessment of the extent to which respondents’ experiences of homelessness were relatively minor or severe dislocations.

METHOD

Sample

1990 survey. The target population for the initial sample had consisted of persons living in households with telephones. Households were selected using random-digit-dialing procedures based on a cluster sample stratified to oversample residents in the 20 largest Standard Metropolitan Statistical areas. Once a household had been reached, a respondent was randomly selected from among all adults aged 18 or older in it, using a variation of the method designed by Kish (1965). Telephone interviews averaging 40 minutes in length were conducted with 1,507 residents of the continental United States between August 1 and November 20, 1990. The response rate was 65% among English-speaking individuals; with non-English-speaking respondents included in the denominator, the response rate was 63%.

1994 survey. In the follow-up study, interviews were sought with all respondents who had self-defined themselves as homeless in the earlier study, and with a strati-

fied sample of respondents who had not so defined themselves (the control group). To obtain the stratified sample of controls, logistic regression was used to identify predictors of self-defined adult homelessness that included homelessness as a child, renting as opposed to owning one's living quarters, family income below \$20,000, friends or family who were poor, time on public assistance, and hospitalization for mental illness. Based on the logistic regression analysis, each respondent's predicted probability of homelessness was determined. The control group included all respondents with a predicted probability greater than 0.20, 84.7% of those with a probability between 0.10 and 0.20, and 36.9% of those with probabilities less than 0.10%. Thus, people at high risk of homelessness were oversampled. Because the sample had known probabilities of selection, it was possible to use weighted analysis to obtain estimates of population parameters such as the prevalence of homelessness.

Since no follow-up to the earlier study had been planned, telephone numbers and, in most cases, name and address were the only means available for locating respondents again. Tracking efforts were made via directory assistance, letters requesting address changes, nationwide checks of publicly available data bases, and (when necessary) calls to neighbors, possible relatives, and the like. In the end, 58.3% of those sampled as described in the previous paragraph were located and reinterviewed.

Responders and nonresponders. The inability to locate and reinterview all subjects raises the possibility of sample selection bias. The most serious form of selection bias for this analysis would occur if reinterview rates differed for groups of self-defined homelessness, high risk for self-defined homelessness, and low risk of self-defined homelessness. However, the response rates for these groups were 55.8%, 56.9%, and 61.0%, respectively, suggesting little bias in the rates.

Measures: 1994 Survey

Literal homelessness. Literal homelessness was assessed by asking respondents: "Was there ever a time in your life when you did not have a place to live? When you had to sleep in any of the following places?" Here they were given a comprehensive list of places to which one might resort while literally homeless, including shelters, emergency or temporary housing for people without homes, public or commercial buildings, vehicles, shelters for people who have been battered or abused, abandoned buildings, makeshift housing, one's place of work, and out in the open. For places that might be construed as questionable for literal homelessness (e.g., vehicles, shelters for battered or abused people, one's place of work), a follow-up probe determined whether the respondent could have afforded accommodation such as a room in a boarding house, a YMCA or YWCA, or a low cost motel or hotel. Only those respondents who could not be counted as literally homeless.

Doubling up. Doubling up was assessed by asking respondents: "Since you were 18, have you ever had to move into someone else's home, apartment, or room because you had nowhere else to live?" and "Since you were 18, has there ever been a period of time when you didn't actually move in with someone else, but stayed in other people's homes because you had nowhere else to live?" Respondents answering yes to either of these questions and also reporting that they "could not have afforded to stay somewhere else, like a boarding house, a YMCA, YWCA, or a low cost motel," were classified as having doubled up.

Duration and frequency of homelessness. Duration of the first period of homelessness experienced as an adult (i.e., since the age of 18) was measured by dating the beginning of a homeless period from the time housing was lost and the end of the period as the time when the respondent was rehoused. Rehousing was defined as living

in a house, apartment, or room of one's own for at least two months or living in someone else's place for at least two months out of choice rather than necessity. When dates of housing loss and rehousing were obtained, respondents were asked how long they had been homeless. If the two figures did not correspond, they were reconciled during the interview with the respondent.

These procedures yielded estimates of homelessness periods that included both literal homelessness and doubling up. To estimate the amount of time spent literally homeless, respondents were asked how long they had stayed in each of the conditions defining literal homelessness during the first period of homelessness experienced as an adult. These were then summed to measure time spent literally homeless. To measure frequency of homelessness, those who reported homelessness as an adult were asked how many such periods they had experienced.

Experiences while homeless. Respondents were asked how often they experienced specific deprivations associated with their living conditions, and to describe any victimization they experienced during periods of homelessness. Deprivations included hunger, lack of access to a toilet, inability to shower or bathe, and theft of their possessions. Victimization experiences included being physically attacked or assaulted, robbed, mugged, burglarized, or raped.

Data Analysis: 1994 Survey

Data was analyzed to provide estimates of life-time prevalence of all types (literal, doubling up, or a combination of the two) of homelessness combined, life-time prevalence of literal homelessness, and five-year prevalence of all types of homelessness combined. In addition, the mean, median, and range for the duration of the first period of homelessness as an adult were obtained, as were the proportions of respondents who experienced specific depriva-

tions related to living conditions and of respondents who were victimized while homeless.

Results are weighted to take into account stratification and other aspects of the survey design employed in the original and follow-up studies. In the initial study, weights were used to take account of the stratification by Standard Metropolitan Statistical Areas, the number of persons in a household, and the number of different telephone numbers within a household. In the follow-up study, weights were used to take a count of the stratification by the probability of becoming homeless. A weighting scheme was necessary to avoid over-representation or under-representation of specific types of individuals in the analysis. For example, a person in a household with two telephone numbers had a better chance of being selected for the sample than did a person with only one; to correct for this, a smaller weight was assigned to the former. Specifically, the weights assigned were the inverse of the probability of selection. Such standard statistical packages as SPSS and SAS, which assume simple random sampling, produce incorrect standard errors for a complex survey design such as this; the software program SUDAAN (Shah, Barnwell, Hunt, & Lavange, 1992), which provides more accurate estimates of standard errors for complex survey designs, was therefore used. All confidence intervals were calculated using this program.

RESULTS: 1994

Self-Reported Homelessness, All Types

The life-time prevalence of homelessness (weighted percent based on $N=487$) of any type was 15.2% (Confidence Interval [C.I.] 9.3%, 19.5%). This is very close to, and within the confidence bounds of, the previous survey's estimate of 14.0%. Five-year prevalence of homelessness of any type occurring between 1989 and 1994 was 3.6% (C.I. 1.1%, 10.1%), again close to the previous estimate of 4.6%.

Table 1

DURATION (IN DAYS) OF FIRST PERIOD OF HOMELESSNESS AS ADULT

MEASURE	TYPE OF HOMELESSNESS	
	LITERAL (N=30)	ALL (N=83)
Mean	80.5	287.7
Median	34.0	120.00
Range	1-422	7-2920

Literal Homelessness

When attention was restricted to literal homelessness as defined for this study, 6.5% of the respondents (C.I. 4.5%, 9.1%) had been literally homeless at some time in their lives. Of the respondents who had been literally homeless as adults, 40.5% reported staying in one place while they were homeless, another 21.4% reported staying in two places, and the rest, 38.1%, reported staying in three or more places. The most common places in which those who were literally homeless stayed were vehicles (59.2%) and makeshift housing (24.6%). Since these are places where homeless people are difficult to locate in point-prevalence studies, the findings underscore the potential of previous studies to undercount homeless people.

Duration and Frequency of Homelessness

Data on the duration of the first period of homelessness experienced as an adult can be found in TABLE 1 (column 2) and include doubling up, literal homelessness, and combinations of the two. As can be seen, respondents' first experiences of homelessness were not one-or-two-night dislocations; the mean and median durations reported were 287.7 and 120 days, respectively. The shortest initial period of homelessness was one week, and for 90% it was more than 26 days. More than one period of homelessness had been experienced by 33% of respondents.

In terms of literal homelessness, the results (TABLE 1, column 1) again indicate that those whose first adult experience of homelessness included literal homelessness spent a significant amount of time in

that state; their mean number of days literally homeless was 80.5, while the median was 34 days; 90% were literally homeless for at least one week.

Experiences While Homeless

Specific forms of deprivation and victimization experienced by respondents while they were homeless are shown in TABLE 2. Homelessness was a severe experience for the majority of those reporting literal homelessness. Within this group, 60.9% reported not having enough food while they were homeless, and 26% experienced all four types of deprivation measured. Victimization was also quite common; 42.2% of the people who had been literally homeless were assaulted, mugged, robbed, or burglarized. Only 16.4% reported none of these adverse conditions or types of victimization. Respondents who avoided literal homelessness and only doubled up clearly had less severe experiences. Even here, however, 25.6% reported experiencing at least one extreme condition of deprivation or victimization.

DISCUSSION

The surprisingly high rates of life-time and five-year prevalence reported in the

Table 2
DEPRIVATION AND VICTIMIZATION WHILE HOMELESS AS AN ADULT:
WEIGHTED PERCENTS

EXPERIENCE	TYPE OF HOMELESSNESS	
	LITERAL (N=31)	DOUBLED UP (N=51)
Deprivations ^a		
Not enough food	60.9%	12.4%
No access to toilet	42.9%	3.9%
Possessions stolen	44.7%	8.1%
Unable to bathe/shower	62.2%	7.8%
Total reporting ^b	73.6%	22.9%
Victimization ^c		
Serious physical attack/assault	14.6%	3.8%
Robbery, mugging, burglary	34.2%	8.6%
Rape	3.8%	1.6%
Total reporting ^b	42.2%	11.0%

^aSometimes or often.

^bOne or more types.

^cOne or more times.

