Extended abstract for Lippert and Lee

Introduction Homelessness is a stubborn social problem that continues to vex policy makers. While only a small portion of the American population is homeless—between 600,000 and 800,000 individuals according to the latest point-in-time estimates (U.S. Department of Housing and Urban Development 2008)—reducing the number of homeless people has proved difficult. One obstacle to progress is the prevalence of poor health among the homeless. For instance, homeless persons experiencing mental illness or substance abuse are less likely to earn income from paid work, which undermines the ability to secure housing. The *chronically* homeless (those with few but lengthy homelessness spells) may be at particular risk of such health deficits compared to the temporarily homeless. Recent definitions of homeless 'types' reflect this possibility, as a common criterion for the chronic label is the presence of disabilities. Our study tests the validity of viewing disabilities and other markers of poor health as features unique to the chronically homeless.

Background The demographic diversity of the homeless population is now well established (Burt, Aron, and Lee 2001). Research has documented diversity in *types* of homelessness as well. Three major types based on the frequency and duration of homelessness spells have been identified: (1) the *transitionally* homeless, or persons "in transition" from one stable housing situation to another with a brief homeless spell in-between; (2) the *episodically* homeless, or persons who fluctuate between being homeless and domiciled over a short period of time; and (3) the *chronically* homeless, or persons with fewer but much longer homelessness spells (Kuhn and Culhane 1998). While representing only a small portion of the homeless population, the chronically homeless consume the largest share of services. This disparity is in part a reflection of the multiple disadvantages suffered by the chronically homeless, who are worse off than other homeless individuals in material well-being, safety, and support networks.

Conventional wisdom suggests that, given their unique vulnerabilities, the chronically homeless should demonstrate greater prevalence and severity of health problems. One hypothesis is that severe health problems increase the risk of future homelessness. As an illustration, mental health and drug problems likely disrupt employment, reduce income, and injure social ties, all of which jeopardize stable housing situations. In support of this argument, previous studies have shown that mental health problems and drug abuse increase the duration of homeless spells (e.g., Susser, Moor, and Link 1993).

An alternative hypothesis centers on the deleterious effects that prolonged homelessness can have on one's health. Lengthy homeless spells increase stress and contact with harmful conditions such as crowded shelters and other insalubrious elements of street life (e.g., exposure to inclement weather). Past studies have drawn empirical linkages between prolonged homelessness and increased risk for infectious diseases (Nolan, Elarth, Barr, Saeed, and Risser 1991; Nyamathi et al. 2002), mental illness (North, Pollio, Smith, and Spitznagel 1998) and mortality (Barrow, Herman, Cordova, and Struening 1999). Further aggravating these circumstances are the challenges homeless individuals face in accessing health services, keeping appointments for follow-up care, and adhering to treatment regimens that require patient commitment. Even

simple responsibilities commonly asked of patients, such as storing and taking medications, can be difficult if one lacks a stable residence.

Irrespective of causal direction, the association between chronic homelessness and health problems is assumed to be strong. Recent refinements to the definition of chronic homelessness reflect this assumption; federal agencies now consider 'disabling conditions' a key definitional component. While state-level disagreements exist over what qualifies as a disabling condition, substance abuse, mental illness, and HIV/AIDS are most often included in the definition.

Less attention has been paid to health problems among the other types of homeless people. It stands to reason that the transitionally homeless should be less impacted by their experiences with homelessness given their briefer exposure relative to the chronic group. The picture is less clear for the episodically homeless. Commonly used definitions distinguishing the three homeless types treat episodic homelessness as a residual category; thus, assumed differences between the health profiles of the chronically and episodically homeless require additional scrutiny. It is possible that the health profiles of the two groups are more similar than distinct. Episodic homelessness patterns could reflect persistent housing instability, interrupted by hospitalization, substance abuse treatment, and/or periodic stays with family and friends during times of sobriety. While these biographical events may distinguish the episodically homeless from the chronically homeless in terms of length and duration of homeless spells, it may not necessarily suggest differences in their health profiles.

Motivated by the ambiguities and assumptions in the relevant literature, we empirically investigate the ways in which health morbidities are distributed across homelessness types. We consider a broad range of health outcomes that include indicators of mental, physical, and sexual health, and substance use behaviors. We explore whether the chronically homeless are indeed more likely to suffer from health morbidities (as conventional wisdom would maintain), or if a more complex pattern emerges in the distribution of health outcomes across homelessness types. Further, because the health morbidities under consideration here differ by race/ethnicity and gender in the general population, we examine whether the distribution of health outcomes across homelessness type differs for non-Hispanic whites compared to African Americans, and for men compared to women.

Methods Data are drawn from the National Survey of Homeless Assistance Providers and Clients (NSHAPC), a representative survey of America's homeless population fielded by the Census Bureau in 1996. We analyze data from the client portion of the survey, which features face-to-face interviews with a multistage probability sample of respondents using a variety of homeless services (e.g., meals, shelter, health care, etc.) throughout the United States. Our working sample is limited to adults aged 18 and over who at the time of the interview lacked a permanent and adequate nighttime residence of their own. We also limit our sample to whites and blacks, given the small number of Hispanics and Asians interviewed. After deletion of respondents with incomplete data, we are left with 1,990 unique cases. Analyses have been weighted to adjust for the probability of selection.

Our key independent variable—homelessness type—is a four-category measure based on the frequency of homeless spells over the lifecourse and the duration of the current spell. Homelessness type is operationalized as follows: *chronic*—a current spell lasting more than one year and at least two homeless spells over the lifetime; *transitional*—a current spell lasting six months or less and only one homeless spell over the lifetime; *highly episodic*—a current spell lasting three months or less and at least four homeless spells over the lifetime; and *other episodic*—a residual category including all other individuals.

We consider three general classes of health outcomes:

Drug and alcohol use: Respondents were asked if they had used a wide range of illicit substances (e.g., marijuana, crack/cocaine, heroin, hallucinogens, etc.) in their lifetimes and in the past 30 days. Current severity of alcohol abuse was also assessed.
Mental Health: Respondents reported if they had ever experienced depression, anxiety, psychotic symptoms (e.g., hearing voices), and suicidal ideation in their lifetimes.
Physical health: Individuals were asked if they currently had any of the following physical health morbidities: functional limitations (i.e., problems walking, missing limb(s), and other disabilities), diabetes, hypertension, and HIV/AIDS.

Respondents reporting any of these health conditions were given a '1' for that particular measure, and '0' otherwise. Thus far each health outcome has been modeled for the full working sample, and separately for white and African American subsamples using the 'svy' command in Stata 10. We are still in the midst of exploring gender-specific outcomes. Our multivariate models control for age, education, presence of children, and, where appropriate, for race and gender.

Results Descriptive analyses suggest high rates of morbidity in this population compared with the general population. For instance, over three percent of the study sample reported positive HIV/AIDS serostatus, compared to less than one percent of the general population. Roughly 61% reported any mental health problem and 28% reported any physical health problem. Drug use also is common among this sample, with over 65% reporting the use of illicit drugs during their lifetime and 20% reporting use in the past month.

Most importantly, when we examine the prevalence of morbidity across homeless types, the findings suggest that the chronically homeless are not always at greatest risk. For instance, chronically homeless respondents were most likely to report having physical health problems (43% of the sample), but the severely episodically homeless were most likely to report mental health problems (80% of the sample).

Figures 1 through 6 summarize results from multivariate logistic regression models, presenting predicted probabilities of selected outcomes across homelessness type by race/ethnicity (controlling for age, education, presence of children, and gender). The results show an inconsistent pattern of risk across homelessness type for both whites and blacks. In some cases, the chronically homeless are at greatest risk, yet in others the episodically homeless are. Further, patterns differ by race. For instance, among whites the highly episodically homeless are at greatest risk for HIV/AIDS, while among African Americans the chronically homeless are at the highest risk.

Discussion The current study shows that, contrary to conventional wisdom, severe health problems are not unique to the chronically homeless. Our analyses document a general pattern where the chronically homeless and the severely episodically homeless are at the highest risk for a multitude of mental and physical health morbidities and substance use problems. In addition, we provide strong evidence that race moderates the relationship between homelessness type and health problems, with such problems distributed across types differently for whites and African Americans. Our remaining tasks include completing the gender-specific analyses to determine whether health problems are uniquely distributed across homelessness type for men and women.