



Invited Commentary

Invited Commentary: Data Sources for Estimating Numbers of People Experiencing Homelessness in the United States—Strengths and Limitations

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In the accompanying article, Mosites et al. (*Am J Epidemiol.* 2021;190(11):2432–2436) evaluate data sources that enumerate people experiencing homelessness in the United States with respect to their strengths and limitations for conducting epidemiologic research in homeless populations. We largely agree with their key arguments, yet offer additional points that provide important context about these data for researchers and other stakeholders. Overall, we believe that it is possible to address many of the noted shortcomings of these data, and once addressed, the data could be more effectively leveraged to improve the health, housing stability, and quality of life of people experiencing homelessness.

data sources; enumeration; homelessness; homeless population; people experiencing homelessness

Abbreviations: AHAR, Annual Homeless Assessment Report; HUD, US Department of Housing and Urban Development; PIT, Point-in-Time.

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Homelessness consistently ranks as a leading problem in the minds of the American public (1). Yet, the true scope of the problem has historically been a subject of fierce debate among advocates, researchers, policy-makers, and other stakeholders. According to the most recent estimates from the US Department of Housing and Urban Development (HUD), in 2019 an estimated 568,000 people were experiencing homelessness in the United States, and throughout 2018, more than 1.4 million spent time in a shelter (2, 3). Estimates of the size of the homeless population have been reported by HUD every year since 2007 in the Annual Homeless Assessment Report (AHAR). HUD is the only agency that collects data with which to estimate the number of people experiencing homelessness in the United States on a systematic and routine basis. Additionally, the AHAR creates a descriptive profile of people experiencing homelessness (4). However, HUD estimates probably undercount the true number of people experiencing homeless in the United States—especially those who

are unsheltered, homeless youth, immigrants, and homeless families (5). Estimate inaccuracies interfere with appropriate resource allocation and interventions. For example, during the beginning of the coronavirus disease 2019 pandemic, it was unclear what resources were needed to protect people experiencing homelessness in different localities because of inaccurate estimates. More accurate estimates of the size of the homeless population—especially at the county and city levels, where most programs are implemented—would have facilitated the delivery of resources to homeless people affected by coronavirus disease 2019 (6).

In their article in this issue of the *Journal*, Mosites et al. (7) argue that population-level data for epidemiologic exploration are necessary to understand the full extent of social and health-related risks associated with homelessness, and in turn to inform interventions that will ultimately improve outcomes. The authors describe the potential epidemiologic applications of 3 main data sources: HUD Point-in-Time (PIT) estimates, which are annual counts of the sheltered and unsheltered homeless population on a single night in January; HUD annual estimates of persons using emergency shelter, derived from local Homeless Management Information System data; and US Department of Education

estimates of the number of students experiencing homelessness during a school year (7). They argue that each has serious shortcomings that limit how and when the data can be used in epidemiologic research and should thus be approached and interpreted with caution. The authors' argument also implicitly calls for making improvements to these data sources.

Although we agree with Mosites et al.'s main argument about the limitations of these data, we believe epidemiologists and other stakeholders interested in understanding and improving the health outcomes of persons experiencing homelessness should keep 3 additional points in mind. First, while flawed, the current data sources that enumerate the homeless population are vast improvements over what was available until the late 2000s. Second, there is a wide array of proposals for improving the accuracy of enumeration efforts that could be easily implemented and would strengthen the utility of these data for epidemiologic research and other purposes. Finally, improvements in the accuracy of these data would have benefits that would extend far beyond their potential use for epidemiologic research and even the original reasons for collecting the data.

STRENGTHS AND LIMITATIONS OF HOMELESSNESS ESTIMATES

Current homeless population-level data collection and estimates are improvements

Enumeration of the homeless population has been a long-standing methodological challenge, as conventional means of counting the general population (e.g., through the Census Bureau's household-based surveys) are inadequate for people experiencing homelessness. Before the first AHAR report in 2007, estimates of the homeless population were conducted sporadically and were of questionable accuracy—varying wildly from 200,000 to 3.5 million (8–10). However, since 2007, annual estimates from HUD have been available, and these have been valuable, useful, and easily retrievable from HUD. Additionally, the community-level data comprising the AHAR have also been available since 2007 and add a crucial resource for tracking trends in the size of the homeless population over time at multiple levels of geography. The collection of these data has opened avenues for conducting important new research to understand community-level predictors of homelessness and the impact of policy interventions on homelessness (11–13). For example, in 2020, the US Government Accountability Office conducted regression analyses using HUD PIT data and found that rent level is an important driver of homelessness (5). Likewise, researchers have used PIT data to show that a concerted policy effort to expand the availability of permanent supportive housing for military veterans has been a key factor in declines in veteran homelessness over time (11).

Counts underestimate the homeless population but can be easily improved

Mosites et al. correctly note that there are serious limitations in estimates of people experiencing homelessness (7).

They call particular attention to problems with the undercounting of the unsheltered population, and those concerns are echoed by the Government Accountability Office report, as well as the *New York Times* (5, 14). However, they provide little guidance on how to improve these estimates, despite numerous recent and past proposals for improvement (5, 15).

Undercounting of individuals in any given homeless population probably occurs more than expected and more for unsheltered persons than for sheltered individuals, given the wide year-to-year fluctuations in numbers reported for the unsheltered population (5, 15). The Homeless Management Information System estimates of the sheltered population are thought to be more reliable given fewer year-to-year fluctuations, but they could also be improved (5). Enumeration of the unsheltered population depends on many factors: weather, the number of enumerators, the use of sampling or a census, a change in methods, the ability to find people, the area of focus (e.g., urban areas vs. large rural areas), and the level of training (5). Some of these factors introduce bias to PIT counts. That is, some homeless people have a lower probability of being included in the count than others. During counts, enumerators sometimes estimate the number of people inside a tent or in an abandoned building without going inside, because of risk or out of respect (5). In addition, characteristics such as age, sex, and race/ethnicity are assumed if not confirmed through interview (5). We feel that a few simple strategies could vastly improve the estimates and help address these issues.

First, HUD could provide clearer and more accessible guidance and training on PIT counting methods (5). This would result in more accurate and more consistent estimates from year to year (5). In particular, HUD could provide communities with the resources and training necessary to calculate margins of error for their estimates (5). One way to improve accuracy for the unsheltered population PIT count, through improved estimates of the error, would be to use plant-capture methods (in which people impersonating homeless individuals are "planted" in predetermined locations to help assess what percentage of homeless persons are being missed during the count), which have previously been used in certain communities on an ad hoc basis (15).

Additional options HUD could consider for improving estimates of people experiencing homelessness include conducting the count over several days and nights or over the course of a week or increasing the number of communities that use postcount service-based surveys. These surveys involve interviewing people receiving services from soup kitchens, drop-in centers, or other places frequented by people experiencing homelessness to assess whether they were homeless on the night of the PIT count. It may also be worthwhile to expand homeless enumeration efforts to include people who are "doubled up" (e.g., sleeping on a friend's sofa) and do not meet HUD's current definition of homelessness and thus are not currently included in HUD's estimates. Estimating the size of this population poses additional methodological challenges, but it would be a worthwhile endeavor for understanding how conditions that may be understood as homelessness affect health.

Finally, it need not be solely the responsibility of HUD to routinely collect data on the scope of homelessness in the

United States. Key population-based health surveys, such as the National Health and Nutrition Examination Survey and the National Health Interview Survey, could promote understanding of the risk homelessness poses to health by incorporating measures of current housing status, recent exposure to homelessness, and risk of becoming homeless.

Epidemiologic purposes are just one of many uses for population-level homelessness data

Mosites et al. note that more accurate population-level data would lead to better epidemiologic research focused on homelessness (7). While that is true, there is already abundant evidence of the negative health impacts of homelessness, and improving counts of people experiencing homelessness solely for the purpose of developing more precise estimates of these negative health impacts is likely to be insufficient for achieving improved health and housing outcomes in this population. Indeed, there are reasons to improve these counts beyond their ability to produce better research. Currently, these data inform Congress on the magnitude of the problem and the characteristics of the homeless population, and they directly affect the amount of funding allocated to federal homelessness programs and the ability of programs that serve homeless populations to plan and respond to homelessness (5). For this reason, it is imperative that these data be accurate. Improving data collection methods and accuracy is essential for supporting and serving the homeless population and other hard-to-reach groups, such as immigrants. Beyond assessment of health risks, improved data collection will inform interventions and natural experiments which have the potential to improve health and quality of life.

CONCLUSION

The annual data from HUD are improvements over past ad hoc and sporadic information-gathering, which varied considerably. Nevertheless, the HUD data, especially the PIT counts, are considered underestimates. Fortunately, methods for improving the estimates are well known. Commitment of resources from federal and state entities will be needed, as well as thoughtful use of well-regarded population-based surveys. There is broad agreement that improved estimates of the homeless population would be desirable and could lead to progress in addressing the health and housing needs of those experiencing homelessness. Yet, better estimates require both the political will and adequate resources. Given the marginalized nature of this population and its significant intersection with other historically marginalized racial groups and people with disabilities, we hope that such political will and resources will be forthcoming.

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