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EDITORIAL

Homelessness

A Potent Risk Factor for Readmission

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On a single night in January 2017, 40,056 veterans were homeless, representing 9% of all homeless adults in the United States.[1] Homelessness is associated with many negative health outcomes, including high rates of acute care use, morbidity, and mortality, and low rates of nonemergent ambulatory care.[2,3,4] Because of this, experts recognize homelessness as a key social determinant of health. In this issue of *Medical Care*, Titan et al[5] report on a national cohort of patients admitted to a Veterans Health Administration hospital for a general, vascular, or orthopedic surgical procedure. They found that homelessness, after adjustment for multiple risk factors, was associated with a 1.43 increased odds of 30-day unplanned readmission. Analyzing data from almost 200,000 individuals with over 235,000 surgical procedures, the investigators make an important contribution to the extant literature on the effects of homelessness on hospital readmission. Those experiencing homelessness had a higher risk for readmission despite their having fewer comorbidities, undergoing shorter and less complicated surgeries, and having longer hospital stays for their index hospitalizations than the nonhomeless veterans. Their study adds nuance to the research by Saab et al[6] in 2016, who found that homelessness was associated with an almost 4-fold increased odds of 30-day readmission from medical and surgical services in Toronto. The higher odds found in the Saab study could be attributable to differences in study design (case control vs. cohort), differential misclassification of homelessness, the study population, reasons for initial hospitalization, or the availability, in the Department of Veterans Affairs (VA) health care system, of specialized services directed toward those experiencing homelessness. Despite differences in magnitude, both studies, conducted in systems for which neither cost of care nor insurance was a barrier, showed that homelessness is a potent, independent risk factor for readmission. With increasing attention on readmission as a key indicator of health care quality, these studies call us to heed the factors that exist outside the control of the health system that elevate the risk of readmission, with implications for housing policy, health system design, and readmission penalty policies.

There are myriad ways in which homelessness raises one’s risk for readmission. Homeless individuals face risks because of individual, environmental, and health system factors. Homeless individuals have a higher prevalence of individual risk factors for acute health service utilization, including mental health and substance use disorders and low social support.[3] While homeless, people face numerous environmental challenges to health, many of which contribute to the risk for readmission. When homeless, one’s medicines and durable medical equipment are easily lost or stolen. People experiencing homelessness face food insecurity; with limited access to food, they are unable to adhere to special diets. With limited access to toileting facilities, medication side effects that may cause increased urination, diarrhea, or emesis, are intolerable. Without electricity and running water,

much of the durable medical equipment that patients rely on after surgery is rendered useless. Emergency shelters are overcrowded, with inadequate bedding and congregant bathrooms; unsheltered environments leave people exposed to the elements and lack hygiene facilities. Both place people at high risk of infectious disease, victimization, and inadequate sleep. Without a regular address, home nursing services are inaccessible. Without reliable access to telephones or transportation, attending postdischarge visits or communicating with one's health care team is difficult. Finding adequate shelter and food become paramount, relegating attending to one's recovery as a secondary concern. Aware of these risks, health care providers may, understandably, adapt their admission thresholds. Health care providers realize that their patients face daunting barriers to adhering to medications, care recommendations, or follow-up appointments or nursing care. Thus, surgical complications that may otherwise be easily managed on an outpatient basis become indications for readmissions. These same factors are likely also responsible for the longer duration of stay, despite lower complexity surgeries and patients with lower comorbidities.

There are several other novel findings in the study that bear mention. The homeless veterans had significantly fewer comorbidities than their housed counterparts and underwent less complicated surgeries. The investigators hypothesized that this was because of lack of medical care and concomitant underdiagnoses, noting, correctly, that people who experience homelessness have lower rates of nonemergent ambulatory care and are less likely to have chronic illnesses diagnosed. While this is possible, there is a more likely explanation. Of the surgical procedures analyzed, the vast majority (90%) were nonemergent. The receipt of nonemergent or elective procedures suggests that the homeless veterans were engaged in health care, beyond acute care. Another explanation for the lower degree of comorbidities and less complex surgeries among homeless patients is that health care providers used different selection criteria for surgical procedures and were less likely to offer elective surgery (or complex surgery) to people experiencing homelessness with multiple comorbidities, compared with their housed counterparts. Alternatively, homeless patients may have decided against elective or complex surgery, for the same reasons. There is good rationale for this: the investigators found an elevated risk of readmission for those with more comorbidities. But these findings point to a rarely discussed consequence of homelessness for health. While people who are homeless have "overuse" of emergency care and avoidable admissions, they likely underuse elective services that may improve the quality (or duration) of life. This deserves further attention, from the clinical, research, and policy communities.

Despite lower acuity and longer stays, homeless veterans were significantly more likely to be discharged to some form of institutional care (primarily nursing homes) than housed veterans. Homeless veterans who were discharged to institutional care, as compared with the community, had significantly lower rates of unplanned readmission. In contrast, housed veterans discharged to nursing facilities had higher rates. For housed veterans, discharge to a nursing home likely is a result of medical complexity, worse functional status, and low social support. Not surprisingly, these individuals had higher readmission rates. However, faced with a choice of

discharging patients to homeless environments, health care providers and homeless individuals may choose a nursing facility. This may be less driven by medical complexity than by provider preference, awareness of the daunting barriers faced by homeless patients, and the availability of postdischarge placements. Discharge to such a facility dramatically lowered the risk of readmission to approximately the risk of the housed veterans. By providing housing and caregiving, institutional settings may be able to approximate the postoperative care expected for housed individuals with social support. In so doing, they can minimize the harm associated with homelessness.

The authors recommend this as a strategy to prevent readmission, which is understandable, but there are reasons for caution. With the aging of the homeless population, there is suggestive evidence that people experiencing homelessness have high rates of entry into skilled nursing facilities, for both short-term and long-term stays. This solution is clearly preferable to discharging individuals with poor health status to homelessness, as is common in many hospital systems. While these unsafe discharges occasionally garner attention via news stories or social media, too often, they go unnoticed.[7] While discharging to nursing homes would be more appropriate than to homelessness, health care systems and policymakers should think critically about this as an optimal strategy. For one, this strategy may simply delay discharges to homelessness, as, after initial reimbursement periods end, nursing homes may discharge patients back to homelessness, while patients remain at high risk. But more pointedly, many of these admissions could be prevented with discharges to lower levels of care, or, better yet, with permanent housing. In this study, homeless patients were 6.5 times more likely to be discharged to a nursing home than to a lower level of care, such as a domiciliary or boarding home.

In the 1990s, with growing awareness that homelessness increased the length of hospital stays, the VA health care system led efforts to seek alternatives to hospitalization.[8] In this journal, in the year 2000, McGuire and Mares[9] reported that discharging homeless veterans to a “hoptel” or a temporary home, equalized length of stay between homeless and housed veterans. This study supported the rise of medical respite, or postdischarge recuperative care. Respite programs provide temporary housing (ie, homeless shelter or hotel) with nursing or medical services for homeless patients leaving the hospital. Respite has been shown to reduce readmission rates at reasonable costs.[10] Ideally, respite care can be used to link homeless individuals to permanent housing. While the data suggest that respite care is less costly than additional days in the hospital or stays in skilled nursing facilities, there are limited mechanisms for reimbursement, limiting the supply. The VA health care system, as an integrated system with an admirable history of pioneering services for homeless veterans, has even more incentive and opportunity to do so, but this study suggests that, even within the Department of Veterans Affairs (VA) health care system, this option remains limited.

The VA health care system has taken seriously its obligation to end homelessness among veterans. Programs such as US Department of Housing and Urban Development-Veterans Affairs Supportive Housing (HUD-VASH), which provide permanent supportive housing (or subsidized housing with on-site or closely linked

supportive services), have proven highly successful at reducing chronic homelessness among veterans, and serve as a model for the country.[1] In addition, the VA health care system has been at the forefront of designing and implementing solutions to homelessness within the health care system. Their homeless-specific health care services, supportive housing programs, and the wide availability of nursing home care, represent compassionate and effective responses to the challenges faced by homeless patients. The VA health care system is, in many ways, the best case scenario for the care of homeless patients. Titan and colleagues' finding that, despite these resources, homelessness remains a prominent risk factor for readmission shows the durability of the effects of homelessness on care. The high costs of homelessness, both human and financial, are hard to ignore. If the human costs of homelessness are not enough to motivate changes, perhaps studies like this can remind us of the urgency of ending homelessness and spur action.

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