Chapter 1

Caring for the Homeless

Maria Raven, Hemal Kanzaria, and Jaskaran (Karan) Bains

Vignette 1

Forty-six-year-old unhoused man with a history of polysubstance use, including alcohol use disorder, presents with right-sided abdominal pain and tremors. The patient states that he has been drinking "almost a bottle" of vodka per day for the past 10 days, and his last drink was 7 hours ago. He states that he has felt similar pain multiple times in the past, and thinks it was also associated with heavy drinking. On initial evaluation, the patient is agitated and refuses to be examined, stating that he just wants to be left alone.

- What are the most appropriate next steps?
- What diagnostic testing should be ordered for this patient?
- How can you support this patient beyond acute clinical care while in the ED? Which Emergency Department (ED) team members should be involved in the care of this patient?

Vignette 2

Fifty-nine-year-old woman recently treated for pneumonia presents after a ground-level fall while walking with her son on the sidewalk. She was caught by her 32-year-old son but did strike her head on the grass. She states she has no medical history, takes no medications, and has never had any surgeries. She feels a bit weak but otherwise fine and is not interested in having laboratory tests drawn or staying in the hospital, as she states she has somewhere important to be. On exam, she is well-dressed and pleasant without acute findings, although she does have some conjunctival pallor from an unclear baseline. CT head and neck is negative.

- What is your differential diagnosis for this patient's presentation?
- What additional history would be useful to obtain from this patient?

Introduction

Despite its prevalence in society and particular salience in medicine, homelessness is not a well-understood term. Homelessness is driven by myriad structural forces, a reality that should be reflected in the language we use to describe our patients and others who lack housing. We will use the term "homeless" interchangeably with "person(s) experiencing homelessness" (PEH), "undomiciled," or "unhoused" throughout the text to emphasize that this patient population should not be stigmatized and defined solely by their housing status.[1]

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Not only does homelessness encompass those who lack any fixed nighttime residence and those who reside in shelters or cars, but also multiple other groups not always considered homeless: those who are facing eviction within 14 days, who lack resources to maintain current housing for over 14 days with no subsequent housing plans, and who are fleeing domestic violence or other dangerous situations and lack resources for permanent housing.[2] Over 580,000 individuals experienced homelessness on a given night in 2020,[3] and cumulative estimates of those who experience homelessness during a calendar year approach 1% of the US population, or 3 million individuals.[4] There is enormous diversity within this population. Roughly one quarter of people experiencing homelessness are chronically homeless, defined as those who have a disability and have been homeless for 12 or more consecutive months or 4 or more separate occasions totaling at least 12 months over the past 3 years.[3,5] Two thirds of those experiencing chronic homelessness are unsheltered (compared to roughly half of the general homeless population) and are thus especially susceptible to negative health outcomes.[3] This group of unsheltered, chronically homeless individuals may be most likely to be identified as homeless upon presentation to the ED, despite comprising just 13% of the entire unhoused population.

Although homelessness affects all areas, nearly 60% of people experiencing homelessness are located in urban centers, with the vast majority living in one of the 50 largest US cities.[3] While many of the same structural factors affect homelessness regardless of location, there are meaningful distinctions between the rural and urban setting. Rural homelessness is more difficult to accurately estimate, with many unhoused individuals staying with family or friends as well as on wider expanses of land that facilitate remote living conditions.[6]

The geographical concentration of urban settings increases the visibility of homelessness to the entire population and can facilitate access to support services.[7] However, large numbers of unhoused individuals living in close proximity to each other often exceed the capacity of available services such as shelters. Urban homelessness is also exacerbated by stigma, higher construction costs, and complicated politics regarding construction of affordable housing.

Given the prevalence of homelessness in urban settings and the challenges faced by unhoused urban dwellers, it is essential that all urban emergency medicine clinicians be equipped to care for this population compassionately and effectively. Urban EDs experience a much higher proportion of visits from patients experiencing homelessness than national averages, which estimate that homeless patients make up 0.5% of total ED volume.[8] This is especially apparent in urban safety net hospitals, where over half of ED visits are by patients experiencing homelessness or other forms of housing instability in locations as disparate as Oakland and Atlanta.[9,10] Many homeless patients turn to these urban EDs when daily realities such as lack of a permanent address, identification, or insurance prove insurmountable barriers preventing them from accessing a healthcare system not tailored to their needs. By destigmatizing this patient population and learning best practices for their care, urban EM clinicians can improve outcomes for patients on each shift and mitigate the burn-out and helplessness that can arise from combatting the structural forces driving homelessness.

Structural Drivers of Urban Homelessness

The first step to providing effective care to people experiencing homelessness is addressing our own biases as clinicians by understanding the structural forces underpinning the homelessness crisis in the US. There is a large body of evidence supporting the claim that

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increasing scarcity of affordable housing is the main driver of urban homelessness. Analyses of Zillow data have indicated that rent affordability, or the share of income spent on rent, above 22% is associated with increased rates of homelessness. If rent affordability is above 32%, as in many major metropolitan areas across the nation such as New York City, Chicago, Los Angeles, San Francisco, Miami, Boston, and others, the rate of homelessness accelerates.[11,12] Increasing income inequality within urban centers can drive up housing prices and inflict disproportionately higher housing burdens on lower-income households, leading to increases in homelessness as well.[13]

This real estate competition from high-income households plays a central role in increasing urban demand for housing, while urban migration of people experiencing homelessness does not. Contrary to popular notions of mass migration of unhoused populations into cities, most people experiencing homelessness are doing so in the area they are originally from. In a study of homeless military veterans, only 15% of veterans receiving Veterans Administration (VA) homeless services migrated across large enough areas to switch VA service networks, and there were no net effects of migration on urban homelessness.[14] Similarly, a New York City (NYC) analysis revealed that 98.3% of families applying for NYC shelters in 2016 had a prior NYC address.[15] Other commonly cited causes of homelessness, such as mental illness or substance use disorders (SUDs), generally precipitate urban homelessness but do not directly cause it in the same systemic manner that housing inaccessibility does.[16]

While income inequality increases demand for housing, the lack of a supply side response is also highly culpable in the lack of affordable housing that drives urban homelessness. While building construction costs are higher in urban areas, local political resistance to constructing new housing units, particularly those labeled "affordable" housing, plays an even larger role in limiting housing supply. This phenomenon has given rise to the label NIMBY ("Not in My Backyard") to describe those who support the abstract concept of increased housing access as long as it does not affect their neighborhoods. This NIMBY activism has resulted in legal challenges to proposed housing developments across the country and across the aisle, with opposition from homeowners throughout the political spectrum.[17]

There are many forces underlying resistance to housing growth. Since the 1970s, when home appreciation outperformed stocks for the first time, homes increasingly became seen as investments. As a result, many homeowners began focusing all of their voting power on limiting housing growth to protect their home equity. Methods like single-family zoning laws, which prohibit lots from being used for any purpose other than single-family homes, were first used in urban settings to quash the possibility of low-income housing.[18] Homeowners were given veto power over new construction in their neighborhoods, an easy path to block new housing that persists today.

The common factor among these restrictive local land use policies is a foundation in racist ideology that continues to affect cities to this day. Single-family zoning laws were created with the intent of excluding people of color,[19] and racial covenants (many of which still exist in writing today despite being unenforceable) gave homeowners explicit legal basis to do so.[20] The practice of "redlining," which began in the 1930s, explicitly rated neighborhoods with black and immigrant populations as risky investments, regardless of actual mortgage default rates. The consequences of this racist policy, which precluded a generation of black Americans from obtaining home loans and other credit, continue to reverberate today in the form of compounding racial wealth inequality, particularly as home equity has

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become the primary source of generational wealth transfer in today's America.[21] Nearly 100 years after redlining was enacted, formerly redlined urban neighborhoods around the country are measurably hotter, more polluted, and have less green space than other areas.[22] Efforts to improve these conditions are often enacted only when gentrification is underway, further disadvantaging long-term residents who are largely people of color. The racial discrimination enshrined into the American housing system has been a major contributor to the overrepresentation of black and Indigenous individuals in the homeless population – in 2020, black Americans made up 39% of all people experiencing homelessness, but only 12% of the overall population.[3]

Characteristics of ED Visits by People Experiencing Homelessness

Patients experiencing homelessness have a high burden of disease. Although nearly one third of ED visits from this population are primarily for food, shelter, or safety,[23] their overall triage acuities and admission rates are not significantly different from patients with stable housing.[24] These patients are more likely to have acute psychiatric conditions or problems related to substance use that require emergency care. Furthermore, homelessness is independently associated with higher mortality even when controlling for poverty – the 21.7% 10-year mortality of sheltered homeless adults exceeded the 16.0% mortality of the lowest income quintile in one Canadian study.[25] These figures likely underestimate the difference in mortality between housed and unhoused populations, because unsheltered adults comprise 70% of deaths in the homeless population. The leading causes of death among people experiencing homelessness are acute intoxication and trauma, with homicide and suicide rates more than triple those in the general population.[26]

The US homeless population is aging, with a median age reaching 50 years in 2013 relative to 37 years in 1990. As patients experiencing homelessness who are 50 years of age or older have nearly twice the admission rates as their younger counterparts and are more likely to present with medical rather than psychiatric primary diagnoses, homelessness may become an even stronger risk factor for negative health outcomes in the future.[27]

Despite the high morbidity and mortality associated with homelessness, undomiciled patients experience longer ED wait times even when their presenting complaint is triaged as emergent.[28] Implicit bias, compassion fatigue, or even overt hostility toward patients experiencing homelessness may be contributing to this disparity. Many emergency clinicians also express concerns about the impact of patients experiencing homelessness on overall ED operations. While this patient population does have a higher proportion of psychiatric ED visits, which are more susceptible to ED boarding,[29] the impact of these patients is dwarfed by the overwhelming evidence that healthcare economics and wider systems issues drive boarding and other ED operational constraints.[30] Patients experiencing homelessness are generally aware of these disparities, which engender feelings of powerlessness, isolation, and stigmatization that damage the therapeutic relationship with clinicians from the outset.[31]

The negative impact of stereotypes on patients experiencing homelessness extends beyond the triage desk and into all aspects of patient care. Clinicians sometimes use biased pattern recognition, relying on characteristics such as hygiene, agitated behavior, and clothing to identify homeless patients rather than asking patients directly.[32] These heuristics are routinely

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employed by all levels of emergency clinicians, and are highly inaccurate given that five out of six undomiciled patients are sheltered or transiently homeless, as mentioned previously.

Simple practices such as routinely screening for housing status are high-impact when considering the increased burden of disease in patients experiencing homelessness, as well as the special considerations that must be incorporated into their care. For example, discharging a diabetic ketoacidosis patient with instructions to adhere to their medication regimen is unlikely to be effective if the patient does not have access to refrigeration for their insulin. Cephalexin, a common outpatient antibiotic for skin and soft tissue infections, may not be feasible for unsheltered patients to take four times daily as indicated, and alternate treatment may be more suitable. Emergency Department-based social services are also inaccessible to these patients unless they are properly identified. At a systems level, creating tailored solutions for specific homeless populations in any emergency department is unrealistic without obtaining an accurate scope of the issue. This failure to identify unhoused patients also limits the validity of data used in research on homelessness, hamstringing our ability to design effective policy.

Clinicians' hesitation to ask about housing status may stem from lack of training, personal discomfort, feelings of helplessness in addressing social determinants of health in the ED, or many other reasons.[33] Admittedly, there is no defined best practice for how to ask about housing, although experienced practitioners have introduced the topic with "Where are you staying these days?" and utilized follow-up questions as appropriate on a case-by-case basis.[34] Another important screening question for this population that is not always considered for stably housed patients is determining updated contact information, as many ED social services are ineffective without the ability to contact patients. Although over 90% of these patients have a cell phone, more than half have changed phones or phone numbers in the past 3 months.[35]

Using cognitive shortcuts also leads to deviations from the accepted standard of care. Homeless patients are less likely to be fully undressed for a physical exam, which can lead to missed injuries, sources of infection, or other pathology that is not readily apparent.[30,32] Given the many barriers to follow-up faced by unhoused patients, any acute or smoldering pathology may lead to significant morbidity and mortality if missed in the ED. Clinicians should have a low threshold for performing full physical exams on intoxicated patients in particular, as these patients may not be able to provide an accurate history. A team-based approach incorporating clinicians, nursing, social work, and other staff should be utilized if needed to facilitate such examinations.

Emergency Department-Based Interventions to Address Homelessness

In addition to providing high-quality clinical care, EDs can function as an access point for connecting the homeless population with support services that have been shown to measurably improve health outcomes. Emergency Department-based case management interventions, aimed at linking these patients with services such as shelter placement and psychosocial support, have proven effective at increasing housing and decreasing healthcare utilization in urban EDs, even by simply standardizing the deployment of existing social work resources for unhoused patients.[36] Case management has also demonstrated increases in health insurance, decreases in alcohol dependency, and increased primary care access in

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this population.[37,38] The use of peer care coordinators who have a history of homelessness has led to increased outpatient care utilization.[39] Yet despite a growing consensus on the cost-effectiveness of these programs,[40] budget limitations prevent their expansion in many EDs.

Interventions aimed at reducing substance use, such as overdose education and provision of reversal agents such as naloxone, have had mixed results. However, combining these initiatives with case management resources led to better outcomes, such as increased enrollment into substance use treatment.[38] The provision of reversal agents such as naloxone is a particularly promising area for ED intervention. However, low rates of unhoused patient follow-up preclude strong evidence on these "medications in hand" initiatives. Even small changes in clinician workflows to incorporate reversal agent provision proved significant barriers to initial implementation of this practice across multiple studies.[41]

While these interventions can be useful in combatting homelessness, the most crucial challenge for EDs to tackle remains access to housing. Although there is mixed evidence on the effects of housing programs on ED utilization, it is clear that such initiatives are highly effective in connecting homeless patients with housing.[38] In recent years, policymakers have begun to shift away from providing housing as an incentive for making lifestyle changes such as substance use reduction. "Housing first" programs, which operate under the well-founded assumption that housing is the major barrier to improved outcomes for homeless individuals, are becoming more common since the George W. Bush administration first incorporated them into federal policy.[42] In select states, Medicaid has begun covering services for formerly homeless residents in permanent supportive housing (PSH) over the past decade, lending further credence to the cost-effectiveness of Housing First.[43] Hospital systems have also invested in housing programs, aiming for the cost effectiveness, patient advocacy, and tax benefits of Housing First.[44]

Although much of the research on Housing First programs is limited due to small intervention size and varying study designs, there are promising signs that this approach is effective. A randomized controlled trial from California compared PSH with usual care for chronically homeless ED high-utilizers.[45] When combined with intensive case management services, PSH successfully placed 86% of patients in housing, with mean placement within 2.5 months and mean housing duration of over 2 years. Only 36% of homeless patients not provided with this service received housing. Moreover, the PSH group had lower utilization of shelters and psychiatric ED services. Permanent supportive housing was not associated with changes in overall ED or inpatient utilization.

The success of this wide array of ED interventions rests on matching services provided to the needs of the local homeless population and building trust with program participants. Even free housing programs can meet obstacles when the services provided diverge from participant needs, and organizations must have the agility to adjust. For example, a free COVID-19 isolation/quarantine hotel program in San Francisco, complete with a physician-supervised team of nurses and other healthcare workers that provided a wide range of support services to homeless patients, had a premature discontinuation rate of 19%.[46] Although the initial support team offered meals, opioid use disorder treatment, and symptom monitoring, it did not include multiple services needed by participants including mental health or telemedicine services and Americans with Disabilities (ADA)-equipped rooms. Meeting these needs may have improved retention. Mistrust of outreach workers and available services is also common among people experiencing homelessness,[47] underscoring

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the importance of building trust when promoting potentially beneficial policies such as those outlined in this section.

Assessing the Impact of Homelessness on ED Operations – De-Emphasizing ED Utilization

Many of the interventions discussed in the previous section have had tangible benefits for the unhoused population, from housing to reduced substance use. However, their impact on ED utilization is less clear. While ED utilization and costs are an important metric for resource-constrained hospital systems, ED costs are only a small component of overall healthcare spending.[48] Moreover, many ED-based interventions that help the homeless population have societal benefits that are not captured in ED data. Frequent ED users, many of whom are homeless, also use nonmedical public services such as shelters, mental health facilities, sober centers, and jail at a high rate. As a result, improved outcomes for this population may not be apparent unless utilization of all these sources is considered, a difficult task without integrated data.[49] Despite the absence of data-sharing infrastructure between these institutions, it is important to avoid falling into the tragedy of the commons by narrowing our view of this societal problem to the confines of the ED.

Health insurance provides an illustrative example. A plethora of research on Medicaid expansion under the Affordable Care Act demonstrates that patients with health insurance have better health outcomes.[50] Insurance expansion also addresses poverty and thereby homelessness. Twenty-two fewer evictions occur per year among every cohort of 1,000 new Medicaid enrollees relative to areas where Medicaid was not expanded.[51] Other factors contributing to homelessness, such as medical bills and loans, are also lower in insured populations. These changes are immensely valuable for patients, but insured status does not consistently decrease ED use by people experiencing homelessness. Analyses of both VA beneficiaries and Medicaid enrollees has shown that patients without stable housing are over six times as likely to be in the top 0.1% of ED utilizers or to name the ED as their usual source of care, respectively.[52,53] Despite being insured, these unhoused patients continue to use the ED frequently. Yet given the clear global benefits of increasing health insurance enrollment, ED utilization is not the primary outcome of interest in this setting.

Other interventions targeted toward the homeless population should be viewed through a similar comprehensive lens. Rather than focusing solely on measures of ED or healthcare utilization, ED leadership should recognize the positive externalities of combatting homelessness at a societal level and invest resources accordingly.[54]

Vignette 1 Conclusion

Patients like this man, who fit the "homeless" stereotype, can experience disparities in ED care right from triage, where they often wait longer than their housed counterparts of similar acuity. This patient's symptoms are consistent with alcohol withdrawal, and he may even be a frequent visitor to the ED. Regardless of the patient's history, the most appropriate next step is to assess whether the situation is safe to engage in a more extended discussion with the patient and communicate your concerns about his health. If the patient is too intoxicated or agitated to participate in his care, clinicians must use their clinical judgment to assess whether the need for a physical exam and/or testing are emergent enough to require the use of chemical or physical restraints. Restraints should be avoided if at all

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possible, and allowing patients to rest until they are more participatory is often the best course of action. In either case, the patient should be fully undressed and examined, just like any other ED patient. If the patient is able to provide a history, his housing status should be explicitly addressed.

Although alcohol withdrawal is high on this patient's differential diagnosis, his recurrent right-sided abdominal pain is also concerning for an acute intra-abdominal process, particularly when your abdominal exam reveals right upper quadrant tenderness to palpation. At this point, laboratory testing should be ordered, including a basic metabolic panel, complete blood count, liver function tests, and lipase. A right upper quadrant ultrasound would also be indicated given the location of the pain.

A bedside ultrasound shows multiple gallstones at the neck of the gallbladder, and labs are notable for a white blood cell count of 18, raising concern for the possibility of acute cholecystitis. This diagnosis may have been missed without a complete evaluation of the patient, beginning with a thorough physical exam.

While the patient is waiting to be evaluated by general surgery, you ask him if he is interested in resources for alcohol cessation. He states that he might be open to this. At this point, you should engage a multidisciplinary team to aid in the patient's care. If your institution has social workers and/or case managers, this would be an ideal time to involve them so that they can begin working on resources for the patient while he is in the hospital.

Vignette 2 Conclusion

In many cases, a patient with a low-impact traumatic head strike with negative CT imaging is reassuring. However, a more thorough social history is crucial in this patient. Although she does not fit the stereotypical appearance of an unhoused individual, on further questioning she states that she has been living in her car with her son for the past three weeks after they were evicted from their apartment. As a result, she and her son fall under the "homeless" category laid out by the US Department of Housing and Urban Development. She has not been eating her typical quantity of food during this time, which has contributed to her weakness, and she has not felt "normal" since she was treated for pneumonia three weeks ago.

These new findings are concerning and, in combination with her conjunctival pallor, they prompt basic lab testing with a basic metabolic panel and complete blood count. When the labs result, her hemoglobin is 3.7 but hemolyzed, and the patient is now reiterating that she feels fine and would like to leave.

At this point, the differential diagnosis for her anemia is wide and includes internal hemorrhage, gastrointestinal (GI) bleeding, severe iron deficiency anemia, B12 or folate deficiency, and hemolysis, among others. Given the presence of multiple life-threatening entities on this list, it is imperative to discuss your concerns with the patient and redraw a complete blood count along with labs to assess for hemolysis and iron studies.

The second hemoglobin value is the same as the first, and you decide to transfuse the patient and admit her to the hospital for further workup. On chart review a few days later, you see that the patient had a hemolytic anemia secondary to a prior atypical pneumonia, and is now doing well after multiple transfusions. Although she did not "look" homeless, her housing status placed her at high risk for increased morbidity, and your screening questions directly led to appropriate management for this patient.

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Pro-Tips

- Although homelessness is a nationwide problem, it is particularly salient in the urban ED setting, where patients experiencing homelessness can make up over half of ED visits in some safety net hospitals.
- The most important factor driving homelessness is scarcity of affordable housing (rooted in a legacy of racism and discrimination), not mass migration, substance use, or other personal characteristics. Emergency Department clinicians should keep this in mind when treating unhoused patients in order to provide equitable care and avoid stigmatizing homelessness.
- Patients experiencing homelessness have a higher burden of disease than the general population, yet face barriers to care starting at ED triage. Emergency Department clinicians should be cognizant of the increased vulnerability of these patients when placed in the waiting room with high-acuity complaints.
- As a routine part of care for all patients, ED clinicians should ask about housing status instead of relying on pattern recognition to identify homeless patients, as the majority of patients in this category do not fit the stereotypes clinicians associate with homelessness.
- Emergency Department clinicians should ensure that these patients are undressed and obtain the full set of physical exam findings relevant to their presenting complaint. If the patient has altered mental status or is otherwise unable to provide sufficient history, clinicians should err on the side of a more thorough examination given the high medical risk and poor follow-up of this population.
- Emergency Department interventions such as case management services and housing programs can be immensely helpful for this population. These programs should be measured by not only their impact on ED utilization but also the more global health and wellness outcomes of patients.
- Tailoring interventions to address the specific needs of an ED's homeless patient population is a crucial prerequisite to successful ED-based interventions in this area.

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