



Persistent Disparities: Trends in Rates of Sheltered Homelessness Across Demographic Subgroups in the USA

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Abstract

Context Homelessness is a public health crisis affecting millions of Americans every year, with severe consequences for health ranging from infectious diseases to adverse behavioral health outcomes to significantly higher all-cause mortality. A primary constraint of addressing homelessness is a lack of effective and comprehensive data on rates of homelessness and who experiences homelessness. While other types of health services research and policy are based around comprehensive health datasets to successfully evaluate outcomes and link individuals with services and policies, there are few such datasets that report homelessness.

Methods Gathering archived data from the US Department of Housing and Urban Development, we created a unique dataset of annual rates of homelessness, nationally, as measured by persons accessing homeless shelter systems, for 11 years (2007–2017, including the Great Recession and prior to the start of the 2020 pandemic). Responding to the need to measure and address racial and ethnic disparities in homelessness, the dataset reports annual rates of homelessness across HUD selected, Census-based racial and ethnic categories.

Findings Between 2007 and 2017, across all types of sheltered homelessness, whether individual, family, or total, Black, American Indian or Alaska Native, and Native Hawaiian and Pacific Islander individuals and families were far more likely to experience homelessness than non-Hispanic White individuals and families. Particularly concerning about the rates of homelessness among these populations is the persistent and increasing nature of these disparities across the entire study period.

Conclusions While homelessness is a public health problem, the hazard of experiencing homelessness is not uniformly distributed across different populations. Because homelessness is such a strong social determinant of health and risk factor across multiple health domains, it deserves the same careful annual tracking and evaluation by public health stakeholders as other areas of health and health care.

Keywords Homeless · Housing · Health inequities · Health status disparities · Systemic racism

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Introduction

Homelessness is a public health crisis. More than 3.5 million Americans experience homelessness in a given year [6, 30], a number that has steadily increased during the course of the ongoing COVID-19 pandemic [41, 46]. The health effects of homelessness are severe and longstanding across the life course. Individuals that experience homelessness have higher rates of a range of both chronic and communicable diseases [14, 24, 38, 56]. Adverse

behavioral health outcomes are strongly associated with homelessness, and these risks increase as the duration of homelessness increases [2, 34]. Finally, individuals experiencing homelessness face a higher all-cause mortality compared to housed Americans [36]. Because homelessness is such a strong social determinant of health and risk factor across multiple health domains, it deserves the same careful annual tracking and evaluation by public health stakeholders as other areas of health and health care.

Notably, rates of homelessness vary significantly by racial and ethnic demographic categories. Black Americans are four times as likely to experience homelessness during their lives compared to White Americans [15]. Disparities in rates of homelessness among demographic groups, and for Black Americans in particular, are a product of racist policies promulgated throughout the twentieth century. These racist policies, such as neighborhood segregation and redlining—or the explicit exclusion of Black Americans from federally backed mortgages—were developed to protect status quo socioeconomic and political hierarchies of White Americans [22, 25, 39]. As a result of constrained access to land and property ownership, these policies created severe, generational wealth disparities between White Americans and people of color [18]. Generational wealth disparities exacerbate risks of housing insecurity and homelessness for people of color due to a lack of protections, including at community and family levels, to mitigate or bounce back in cases of financial hardship [8]. Yet, in the face of this reality, we have little comprehensive, *annual*,¹ and up to date data on rates of homelessness across demographic groups. Until we have adequate data on the scope of homelessness across populations, we cannot effectively design equitable policies to reduce disparities between groups.

Policymakers and public health officials have many policy tools at their disposal to address homelessness. The most promising approach is Housing First, which provides housing without behavioral prerequisites such as sobriety—which are often impossible to achieve while sleeping on the street—alongside critical social, medical, and behavioral health services [33]. Evidence demonstrates overwhelming success with Housing First, decreasing homelessness, morbidity, and mortality while improving quality of life [10, 29, 44]. Yet, a primary constraint of achieving Housing First and other related supportive housing policies is effective and comprehensive data on rates of homelessness and who experiences homelessness. This is a problem that persists in jurisdictions across the USA.

¹ The lack of frequent, periodic data on rates of homelessness is an additional constraint. Most cities in the USA do not have access to ongoing or periodic data [12]. This paper focuses explicitly on the absence of annual data, nationally, to understand the scope and true burden of homelessness in the USA.

Limited or no data makes it challenging or impossible to identify who is at risk of homelessness (and the causes of homelessness for individuals, and within and across groups); who is experiencing homelessness; link individuals to necessary resources including shelter and housing; and identify outcomes post-interventions.

While other types of health services research and policy are based around comprehensive health datasets to successfully evaluate outcomes and link individuals with services and policies, there are few such datasets that report homelessness. In the USA, the most comprehensive and standardized source of data on homelessness is based on a single-night point in time count from jurisdictions not aligned with census designations [37, 53, 55]. *Annual* data on rates of homelessness are extremely limited, irregularly reported by the Department of Housing and Urban Development, and are not publicly reported by HUD across subnational jurisdictions [47]. Finally, most cities do not have locally available data on rates of homelessness or face data sharing challenges between homeless shelters, the city, and HUD designated reporting entities (the Continuums of Care to be discussed shortly) [12].

To successfully address homelessness and reduce health inequities, we must know the extent of the problem, how it varies across groups, and be able to measure it. This paper addresses this difficult issue. Gathering archived data from the US Department of Housing and Urban Development, we created a unique dataset of annual rates of homelessness, nationally, as measured by persons accessing homeless shelter systems, for 11 years (2007–2017, including the Great Recession and prior to the start of the 2020 pandemic). Responding to the need to measure and address racial and ethnic disparities in homelessness, the dataset reports annual rates of homelessness across HUD selected, Census-based racial and ethnic categories. Our analysis of these data reveals persistent gaps in rates of homelessness across racial and ethnic groups, and by urbanicity, and provides evidence of the need for comprehensive data to design targeted policies and interventions to the needs of specific groups to mitigate this crisis and improve health equity.

Homelessness Prevalence, Disparities, and Data Constraints

Current Estimates of Homelessness

Literature on the state of homelessness in the USA is necessarily constrained by data. Researchers have tried to get around these data constraints through a variety of mechanisms, providing important insights into estimates for specific populations and contexts. In particular, scholars have used detailed administrative datasets from different levels of government or specific sites in order to get

at population-specific estimates of homeless prevalence [4]. For example, we have much more comprehensive estimates of veteran homelessness compared to other categories of homelessness, as a result of greater infrastructure for homeless responses and data reporting within the Veterans Administration. This research provides important and foundational insight on estimates for rates of homelessness, both annually and across different time points, for this high-risk group [26, 35]. Similar research has been conducted within health care systems [21, 32], providing more comprehensive, site-specific estimates of the burden of homelessness and disparities within population groups at these sites.

National, annual data on rates of homelessness in the USA are the most limited. While some of the literature just discussed has been able to provide site-specific longitudinal estimates on rates of homelessness, as well as differences between demographic categories, these data are constrained to these specific jurisdictions or contexts. Some authors have used unique data sources to provide national estimates of rates of homelessness for various groups, across different time frames, for example, work using field surveys to estimate annual rates of homelessness for unaccompanied youth and young adults [6] and retrospective analyses to estimate lifetime prevalence of homelessness across racial and ethnic demographic categories [15]. This research not only fills a crucial gap, but also highlights the need for real-time, comprehensive data across populations to fully understand the scope of the problem and mitigate inequities.

The most frequent data reporting on homelessness is conducted by the US Department of Housing and Urban Development (HUD), through their Point-in-Time (PIT) counts of homelessness during a single night. PIT counts procedures and methods are standardized across collection sites and include important demographic variables for unhoused persons [51]. This reliance on PIT counts is evident by much of the prior literature on homelessness. This work largely focuses on estimates of specific groups or locations [13, 27, 31].

While these efforts are important, they may miss the broader impacts of homelessness in the USA on two fronts. First, PIT counts focusing on a single night to capture estimates of the burden of homelessness nationally may inaccurately represent the burden of homelessness as a time invariant measure, eclipsing the true *annual*, national, burden of homelessness. Other standard measures of population health issues and social problems in the USA rely on prevalence measures by year. To make measures of homelessness more comparable to other standard indices of morbidity, mortality, and social outcomes and to adequately compare these indices with risk of homelessness across demographic groups to successfully address *disparities*, assessing annual measures of homelessness is preferable [28, 37].

Further, national counts of homelessness across demographic, racial, and ethnic subpopulations using PIT data in

the federal Annual Homeless Assessment Reports to Congress are only reported in isolation for a single year (with some comparisons to only the previous year), as opposed to longitudinally [47]. Until 2019, data on the prevalence of homelessness across racial and ethnic subpopulations were not made publicly available beyond individual Continuum of Care reports. Recently, HUD made PIT counts by race and ethnicity from 2015 onward publicly available. This is an important first step.

Our analysis here focuses on a rarely used measure of annual homelessness as opposed to PIT counts to generate estimates of annual rates of homelessness by race and ethnicity. Obscuring rates of homelessness across demographic subpopulations and how these rates *change over time* may inhibit successful policy solutions targeting groups at higher risk of homelessness.

Challenges in Data Collection

There are many reasons why data on homelessness in the USA is so limited. A primary reason is governance—or the processes and systems responsible for, or by which, solutions to homelessness in the USA are designed and delivered. Homeless policy governance in the USA is very complex, highly fragmented, and under-resourced [29, 53, 55]. As a result, many different actors are often doing different tasks, independent of one another, with varying levels of coordination and differing availability of resources to carry out tasks or attempt to coordinate with other actors in policy tasks [53–55]. This is a particular challenge for homeless policy data.

Data challenges are shaped by several factors. Homelessness governance is largely delegated and decentralized, by the federal government, to local governments and non-governmental actors through Continuums of Care (CoCs) [17]. Nearly 70% of Continuums of Care are not a part of local government entities, many are organized in jurisdictions that differ from municipal jurisdictions, and both CoCs and mayors list coordination between local government and CoCs as a primary challenge to addressing homelessness [12, 20]. All these factors make data collection, standardization, sharing, and coordination extremely difficult. This can make collecting nationally representative data on rates of homelessness very challenging and changes in prevalence difficult to determine.

Additionally, the experiences and conditions of homelessness can pose challenges to collecting data on homeless populations. Shelters and other services for the homeless are not able to house every individual experiencing homelessness, making it difficult to ensure that data collection efforts are counting the total population. For example, some shelters differentiate access to beds for different groups, constraining access to certain populations. Shelters often come with many other risks—including violence, assault, and abuse—where many persons may not

feel safe and may opt for unsheltered locations such as encampments [1]. Finally, the pandemic introduced marked shifts in traditional service provision, where congregate shelter facilities pose serious risks to disease transmission, necessitating shifts in data collection strategies to understand homelessness prevalence and disparities across groups.

Lastly, public health policy has a long and contemporary history of excluding racial and demographic categories from data collection across many health outcomes and indicators. The pandemic is a tragic example of this, where most states and local jurisdictions did not collect and report infections, hospitalizations, and deaths across racial and ethnic demographic categories [19]. Here, the case of opacity in homelessness data is not specific to homelessness but a pervasive trend in health research. These data constraints obscure disparities and hamper successful policy design to tackle inequity [5].

This paper provides insight into the changing face of homelessness, to highlight trends in prevalence over time, across racial and ethnic demographic groups. We examine variation in annual rates of homelessness by racial and ethnic demographic categories stratified by family unit (individuals vs. families) and jurisdiction type (urban and rural). This data can help inform policy to address homelessness by signaling attention on critical populations, who are most at-risk.

Methods

Overview

We created a unique dataset of an alternative measure of rates of homelessness from the US Department of Housing and Urban Development, the Homeless Management Information System (HMIS). HMIS tracks the national prevalence of sheltered homelessness over the course of a year and reports these data by racial and ethnic groups.² We paired the HMIS data with annual US Census data on the total population in each demographic group to generate a proportional estimate of the prevalence of homelessness, or the percent of persons experiencing homelessness within a demographic group, across the entire time period—2007–2017.

² “HMIS Data provide an unduplicated count of people who are experiencing sheltered homelessness and information about their characteristics and service-use patterns over a one-year period of time. These data are entered into each CoC’s HMIS at the client level but are submitted in aggregate form for the AHAR,” [45], iv); “The HMIS-based data in the AHAR sample includes information on all people who used an emergency shelter, transitional housing, or permanent supportive housing program at any time during a one-year period from [October 1 through September 30 of the following year [47] for each AHAR]. The information on emergency shelters and transitional housing programs is then weighted to produce national estimates of sheltered homelessness. The same process is used to produce national estimates of the number of formerly homeless people who used PSH programs,” [50], 1).

HMIS Data

We collected annual, national counts of sheltered homelessness by racial and ethnic demographic groups from 2007 to 2017 from the publicly available HMIS data files (See “Part 2” data files, “Estimates of Homelessness in the U.S.”) from the HUD website [47]. This aggregate data is only available at the national level, not by any subnational unit including states, cities, and Continuums of Care.³ We selected years 2007–2017, as national, annual estimates of sheltered homelessness are only publicly available through 2017.⁴ Continuums of Care are required to report estimates of homelessness to HUD, but HUD only reports these annual data at the national level with no identifiable subnational jurisdictions (beyond broad categories described below) of any kind. As noted, we used HMIS data since it provided the most consistent longitudinal data on national, *annual* counts of sheltered homelessness across racial and ethnic group populations from over any time period (as compared to single point in time estimates).

These aggregate, national HMIS data files are not currently available on the HUD website for data prior to 2011. Prior to 2011, the HMIS data are only available in the Annual Homelessness Assessment Reports (AHAR) [47]. To account for this gap, we collected the data manually from the AHAR.pdf files and created the database from the numeric text entries from 2007 to 2010. For 2011–2017, we used the pre-populated HMIS excel data files produced by HUD.

We use the racial and ethnic demographic categories directly from HMIS. The racial and ethnic demographic categories in the HMIS data are US Census categories. The HMIS data includes Census-designated categories by race: non-Hispanic White; Hispanic White; Black or African American; Asian; American Indian or Alaska Native; and Native Hawaiian or Pacific Islander; Several

³ HMIS HUD data is not disaggregated by any subnational unit but instead includes national, annual estimates of sheltered homelessness across some geographic categories. These categories are pre-selected by HUD and include sheltered homeless persons in principal cities and sheltered homeless persons in suburban and rural areas (See section “Stratifying the Sample by Type of Geographic Area” in the 2016 AHAR Data Collection and Analysis Methodology report [50] for more details on HUD’s methodology and selection criteria). Unfortunately, rural and suburban are aggregated together by HUD in each year, and we are not able to disentangle these categories (please see the supplemental Appendix and original HUD data for complete details [47]).

⁴ At the time of data collection, data on sheltered homelessness for years 2018 to 2021 were unavailable due to delays from the pandemic. Additionally, in 2018, HUD shifted its use of the HMIS platform to the Longitudinal Systems Analysis (LSA) platform. While the LSA platform provides more specific information on sheltered homelessness, the LSA estimates cannot be compared to those from previous years due to the differences in data collection and methodology from the HMIS platform [49].

Races. The HMIS data also includes two Census-designated categories by ethnicity: Non-Hispanic/non-Latino; Hispanic/Latino [47]. It is important to note that there is some overlap between race and ethnicity in the HMIS designations; we cannot correct this given the data constraints but recognize that these designations differ from Census and general definitions of race vs. ethnicity. Thus, as the HMIS data is nationally aggregated, we are not able to disentangle multiple identities or overlap across Census categories (please see the Supplemental Appendix for complete data). HMIS data include other demographic variables such as gender and age, but the inclusion of these measures differs from year to year. While this research focuses on racial and ethnic variation in annual rates of homelessness by family type and jurisdiction, future work should examine important heterogeneity across gender, age, and other demographic categories and rates across overlapping racial and ethnic identities.

HMIS data categories on sheltered homelessness differed from year to year. To standardize data collection and create coherent national estimates, we only included data with categories that were present in every year from 2007 to 2017.⁵ The full dataset is available in the online Appendix (see Supplemental Data Appendix). For the purposes of the study, we focused on measuring trends in rates of sheltered homelessness across primary categories of types of homelessness and key geographic trends based on the data available. Measures of types of homelessness included in the analysis for this paper are all sheltered homeless population, sheltered homeless individuals, and sheltered homeless persons in families. Measures of geographic categories included in this paper are sheltered homeless persons in principal cities⁶ and sheltered homeless persons in suburban and rural areas.

⁵ These categories included all sheltered homeless population; sheltered homeless individuals; sheltered homeless persons in families; all sheltered persons in emergency shelters; sheltered homeless individuals in emergency shelters; sheltered homeless persons in families in emergency sheltered; all sheltered homeless persons in transitional housing; sheltered homeless individuals in transitional housing; sheltered homeless persons in families in transitional housing; sheltered homeless persons in principal cities; and sheltered homeless persons in suburban and rural areas. Please see Supplemental Appendix 2 for complete data categories across years, to evaluate the differences in data reported in each year from 2007 to 2017.

⁶ Principal cities refer to the major cities in the USA designated as “principal cities” or “major city Continuums of Care” where most persons experiencing homelessness reside, or jurisdictions with the highest rates of homelessness in the USA.

Census Data

National, annual counts of sheltered homelessness in isolation are helpful but are limited without context. For example, numeric data on rates of homelessness in isolation may illustrate greater rates of homelessness for White Americans in terms of absolute numbers and may miss the proportion of each racial and ethnic group experiencing homelessness. This is due to important variation in the size of populations across racial and ethnic groups. Therefore, creating a composite estimate of national, annual rates of homelessness reporting the *proportion* of persons from each population group experiencing homelessness creates a much more meaningful measure. Importantly, some HUD Part 2 Annual Homeless Assessment Reports using HMIS data began to compare counts of homelessness to population level estimates for some racial and ethnic groups, comparing the percentage of homeless counts by race and ethnicity to the percentage of the population for some racial and ethnic groups. This is an important first step to understand inequity across groups. However, none of the HMIS reports contextualize counts by population estimates for all racial and ethnic demographic groups, with Indigenous groups rarely reported on. Furthermore, none of the HMIS reports create proportionate rates of homelessness prevalence, and none of the reports compare counts of homelessness over time, across continuous years, only to the immediately previous year and 2007⁷, limiting our understand of how these trends change over time [47].

To create a measure of prevalence, we first collected annual population counts across racial and ethnic groups by year from the US Census [42, 43]. We then calculated national, annual prevalence rates of homelessness in each demographic group by dividing the HMIS sheltered homeless populations in each racial and ethnic group by the estimated⁸ total US Census population in each racial and ethnic group during a given year. We compared annual trends of homelessness by percentage of the total population across demographic groups (race, ethnicity, and urbanicity for three categories of homelessness: (1) total rates of sheltered homelessness; (2) sheltered homelessness among individuals; (3) sheltered homelessness among families.

⁷ After 2018, with the new reporting system, AHAR reports on HMIS data only include comparisons to the previous year, with some comparisons to 2018 and 2019 in the 2020 report. There is currently no Part 2 AHAR using HMIS data for 2021 [47].

⁸ The US Census is conducted once every 10 years. The US Census data is updated annually to reflect population level estimates. Thus, the denominator in this quotient is still an estimate of the total population.

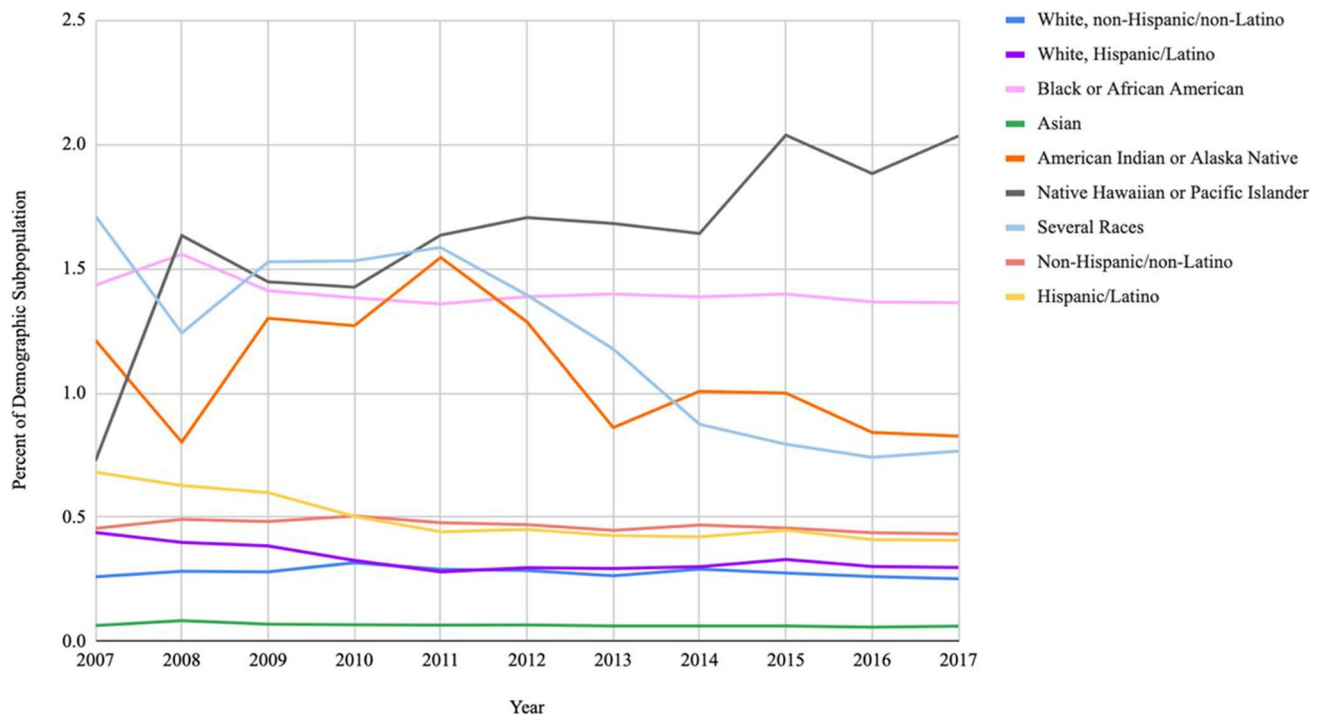


Fig. 1 Percent of demographic subpopulations experiencing sheltered homelessness 2007–2017

Results

Homeless Demographics by Type of Homelessness

Persistent racial-ethnic disparities were identified across all categories of homelessness. Rates of prevalence of homelessness among Black, American Indian or Alaska Native, and Native Hawaiian and Pacific Islander groups were at least 2 times higher than rates of homelessness among White and Asian groups from 2007 to 2017 in the total rates of homelessness, individual sheltered homelessness, and family homelessness. Our findings also demonstrate substantial *variability* in the rates of homelessness for different groups across the time period.

Total Rates of Annual Sheltered Homelessness

The trends in the prevalence of sheltered homelessness over the past decade display persistent, wide inequities across racial demographic groups (see Fig. 1). When looking at the total rates of homelessness across racial demographic groups from 2007 to 2017, there is a stark and constant divide between the prevalence of homelessness for Black or African Americans, American Indian or Alaska Natives (AI/AN), and Native Hawaiian or Pacific Islanders (NH/PI), compared to White, non-Hispanic, and Asian groups. The prevalence of homelessness for White

and Asian groups was less than half the rates of homelessness for these other racial groups across the entire timeframe (mean of 0.066% and highest rate of 0.08% (in 2008) for Asian groups, and mean of 0.28% for White, non-Hispanic groups and highest rate of 0.32% (in 2010), compared to the *lowest* reported rates during the time period Black (1.36%), 0.8% for AI/AN, and 0.7% for NH/PI groups, which even at their lowest remain more than twice as high as the highest and average rates for non-Hispanic White and Asian groups).

Notably, this time period includes the Great Recession, but the prevalence of experiencing homelessness was not equal across racial groups during the economic downturn or afterwards. The prevalence of experiencing homelessness for Black or African American groups and Native Hawaiian or Pacific Islander groups spiked during 2008. By comparison, White and Asian groups did not experience the same spike in the prevalence of homelessness, but there was a slight increase in 2010. Concerningly, the prevalence of homelessness was “sticky” for Black Americans and NH/PI groups, where prevalence increased or remained at levels comparable to 2008 (rates of sheltered homelessness among Black Americans persisted from 1.5% in 2008 to just below 1.5% (mean 1.4%) of the population from 2009 to 2017). See Fig. 1.

By contrast, when looking at ethnicity, we see comparable prevalence of total sheltered homelessness across both

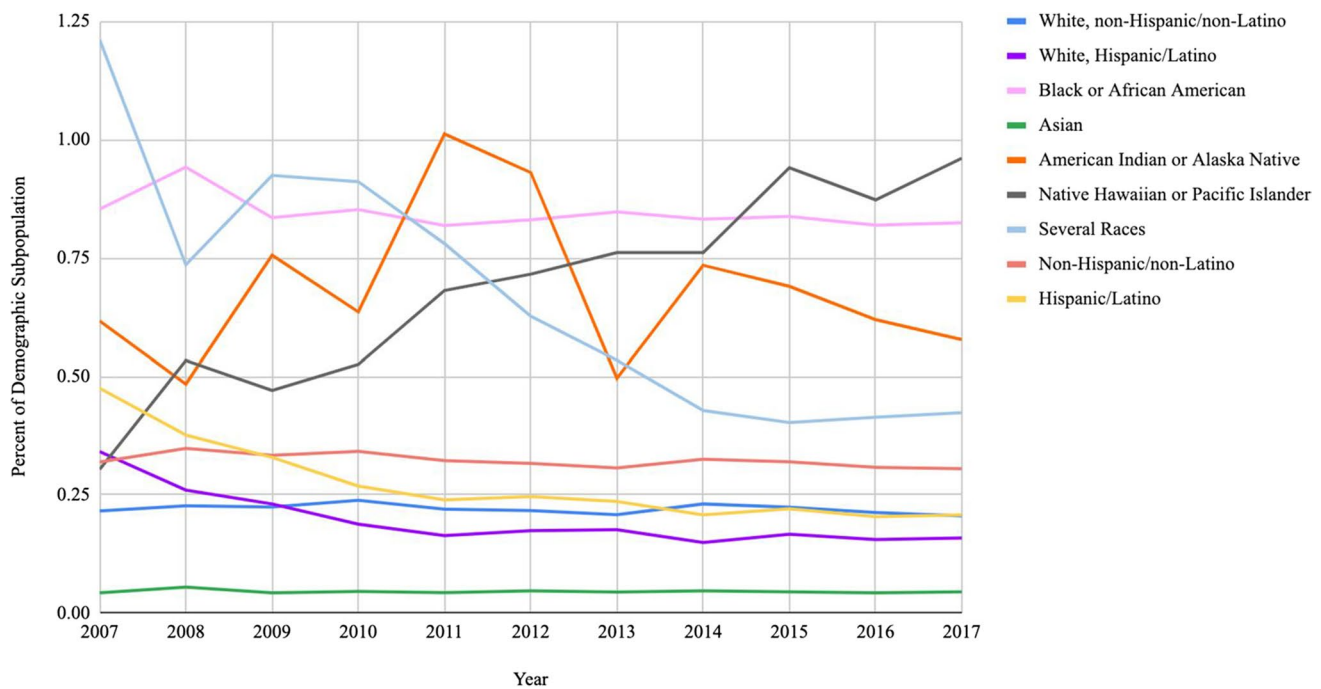


Fig. 2 Percent of population experiencing individual sheltered homelessness, by race and ethnicity, 2007–2017

Hispanic/Latino and non-Hispanic populations during the time frame of the study. From 2010 to 2017, the prevalence rates are consistently within one percentage point of each other. However, prevalence rates of sheltered homelessness among Hispanic/Latino populations decreased by about one-third over the decade. See Fig. 1.

Individuals

For prevalence rates of sheltered homelessness among *individuals*, we see the same trends as in the total rates of sheltered homelessness across racial groups. The prevalence of homelessness among White and Asian groups remained the lowest across the entire time period with less than 0.25% of the population experiencing sheltered homelessness. The prevalence of individual sheltered homelessness for Black, AI/AN, and NH/PI groups was persistently at least double the rates of individual sheltered homelessness for White and Asian populations from 2008 to 2017. By contrast, the prevalence of sheltered homelessness for Black individuals was persistently 3 times greater than rates of sheltered homelessness for White and Asian groups. NH/PI populations saw the greatest increase in the prevalence of individual sheltered homelessness during the time period. The prevalence of individual sheltered homelessness among NH/PI populations increased nearly threefold from 2007 to 2017, eclipsing rates of individual sheltered homelessness among Black Americans in 2015. See Fig. 2.

When looking at rates of individual sheltered homelessness by ethnicity, we see that the prevalence for non-Hispanic/Latino persisted with little change over the time period, whereas rates for Hispanic/Latino decreased by more than half from 2007 to 2017. See Fig. 2.

Families

The prevalence of sheltered family homelessness among AI/AN persons dropped by 0.25 percentage points from 2007 to 2017. This is notable compared to the prevalence of family sheltered homelessness among Black and NH/PI populations, where rates persisted across the entire time period (0.5% of Black Americans) or increased substantially. The prevalence of family sheltered homelessness for NH/PI has more than doubled from 2007 to 2017. Rates of family sheltered homelessness for Black Americans were double that of White and Asian groups during the entire time frame, while rates for NH/PI were consistently more than three times greater. See Fig. 3.

For rates of family sheltered homelessness by ethnicity, Hispanic/Latino rates were consistently higher than non-Hispanic over the decade. Notably, family sheltered homelessness for Hispanic/Latino and non-Hispanic started and ended at the same rates (in each group), in 2007 and 2017, respectively, with no substantial reduction in rates of homelessness by ethnicity made at the end of the decade. See Fig. 3.

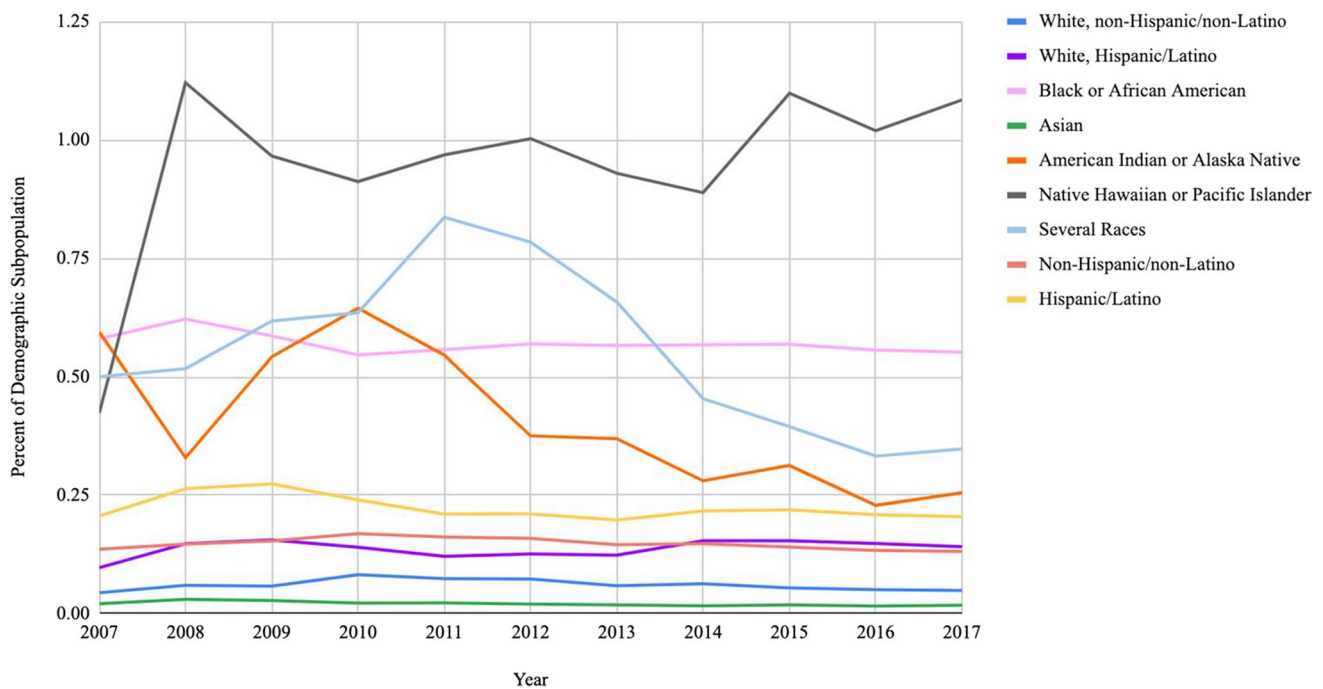


Fig. 3 Percent of population experiencing sheltered family homelessness, by race and ethnicity, 2007–2017

Homeless Demographics by Jurisdiction

Cities

We find consistent trends in the total prevalence of persons experiencing sheltered homelessness when looking at race, ethnicity, and location. Since 2007, the prevalence of Native Hawaiian or Pacific Islander populations experiencing homelessness in cities has more than doubled, becoming the racial group with the highest percentage of homelessness and the only group which experienced increasing rates of homelessness in cities over the time period of the study. Concerningly, there is very little change in the rates of individuals experiencing homelessness for White, African American, or Asian populations, while American Indian or Alaska Native populations exhibit volatility in their rates of homelessness in cities. See Fig. 4.

Suburban and Rural

The prevalence in total sheltered homelessness by racial groups had similar dynamics in suburban and rural locations, as in urban locations. While the percentage of persons experiencing sheltered homelessness in rural and suburban locations was lower than in urban areas, Native Hawaiian or Pacific Islanders were the groups which were most likely to experience homelessness. Native Hawaiian or Pacific Islander groups were particularly hard hit during the Great

Recession, when the percentage of persons experiencing sheltered homelessness increased by 0.7 percentage points, the largest 1-year change by location. See Fig. 5.

Broken down by ethnicity, we find that non-Hispanic individuals were consistently more likely to be experiencing homelessness than their Hispanic/Latino peers in rural or suburban locations. Ultimately, non-Hispanic populations had a slight increase in their rates of experiencing homelessness over the course of the study, while Hispanic/Latino populations decreased slightly. Rates of sheltered homelessness by ethnicity in *city* locations are a more positive story for Hispanic and Latino populations (see Fig. 5). Since 2007, the percentage of Hispanic or Latino persons experiencing sheltered homelessness in cities decreased by nearly half. Over the same time period, non-Hispanic individuals experiencing homelessness only slightly decreased in cities. See Fig. 5.

Limitations

Using HMIS to estimate rates of homelessness nationally presents a better estimate of the burden of homelessness annually based on direct interactions individuals have with homeless mitigation systems. However, the HMIS count is still an undercount of the true burden of homelessness across different groups in the USA. For example, the HMIS counts do not include persons experiencing unsheltered homelessness, which accounts for about one-third of all individuals experiencing homelessness in the USA as estimated by the PIT counts [46]. Rates of unsheltered homelessness have

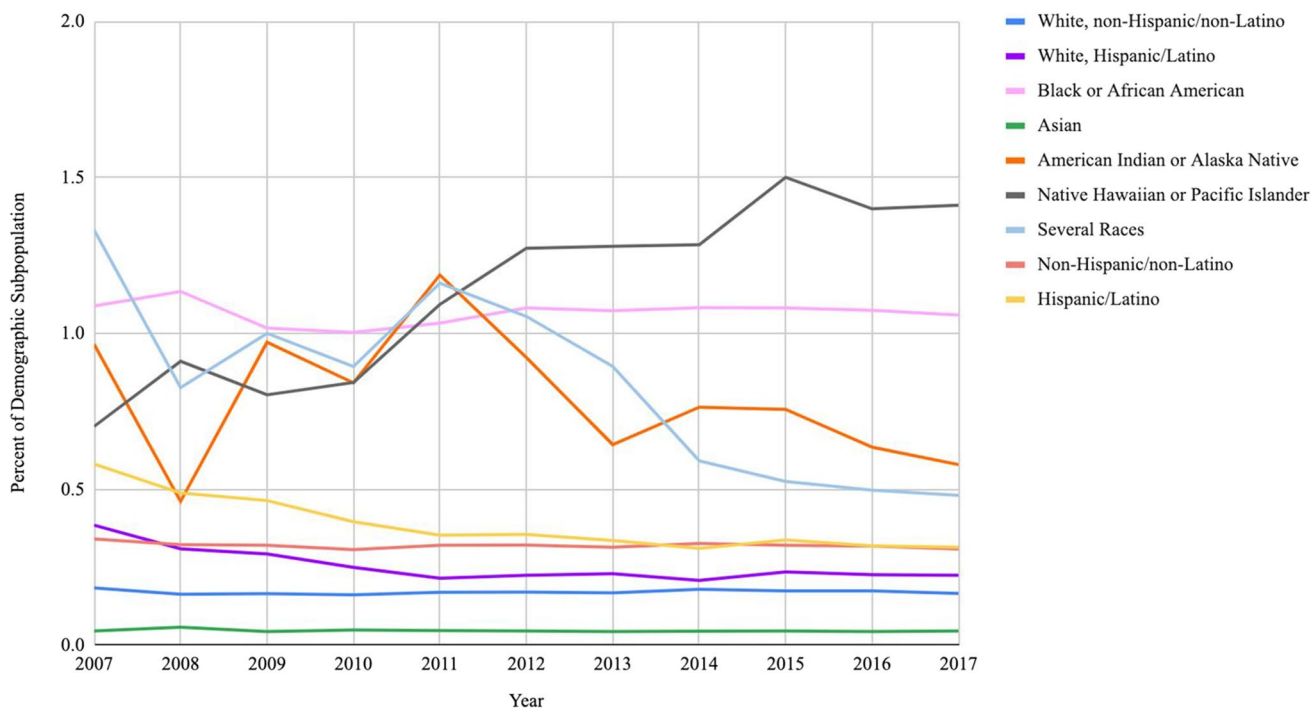


Fig. 4 Percent of sheltered homeless in cities, by race and ethnicity, 2007–2017

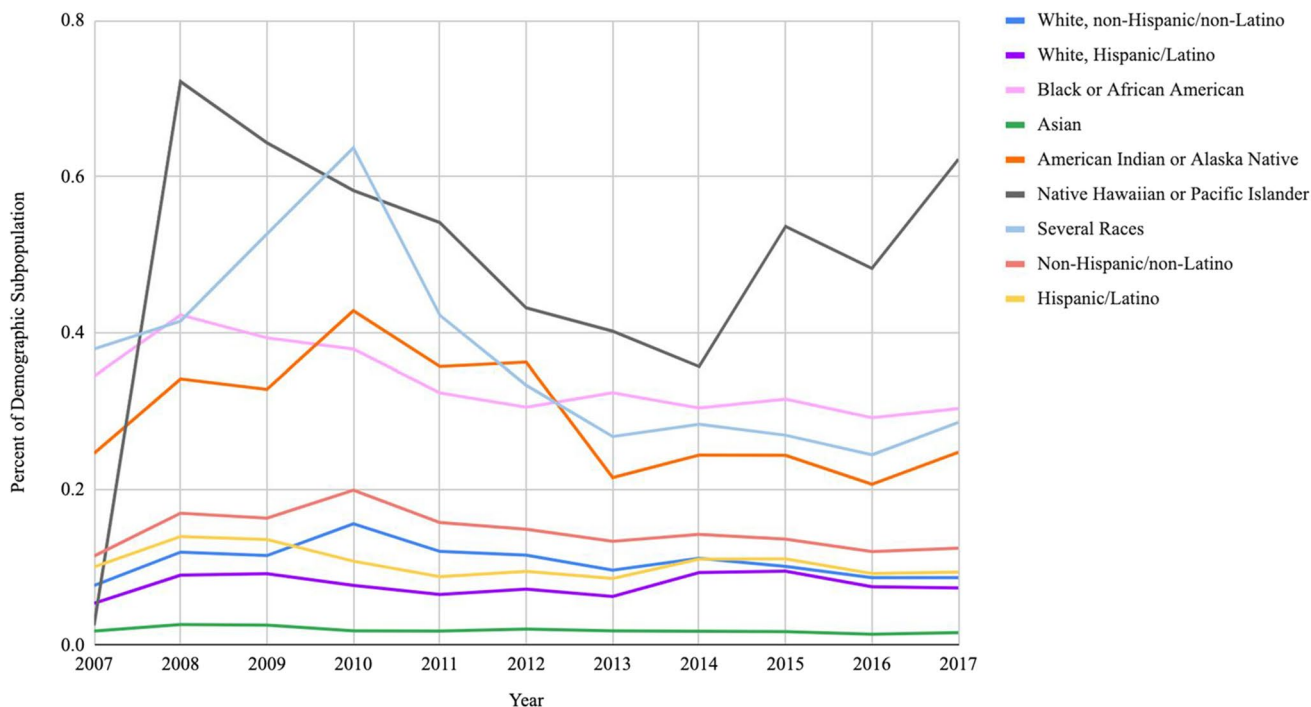


Fig. 5 Percent of sheltered homeless in suburban/rural population, by race and ethnicity, 2007–2017

also increased during the pandemic [46]. Unsheltered homelessness disproportionately affects marginalized groups and

may thus further exacerbate disparities (U.S. Department of Housing and Urban Development 2021 [46], 1). However,

some persons who are unsheltered may access the shelter system at some point during the year, especially in Code Blue areas, potentially strengthening the value of the HMIS data [16].

Despite this limitation, the HMIS counts may give a better estimate of the disparities and illustrate the severity of inequities across populations of racial and ethnic groups and geographic jurisdictions. Thus, even though HMIS data are limited and are likely an undercount of true rates of homelessness and disparities, the *persistence* of these disparities across the entire time period of this study, paired with the knowledge that rates of homelessness have increased post-pandemic, including rates of unsheltered homelessness, suggests that the scope of disparities in rates of homelessness across groups are likely *far greater*. The magnitude of this finding in our data given the context of the limitations of the data emphasizes the need for urgent action.

Discussion and Policy Implications

Experiencing homelessness is a public health problem, one that for decades has been overlooked and understudied by practitioners and officials. We know that individuals experiencing homelessness are at higher risk to a raft of different poor health outcomes, but we unfortunately do not have timely, coherent, and longitudinal data on *which* populations are at risk to experience homelessness. We have sought to bridge this gap by generating and analyzing a unique data source, producing results that highlight the inequitable risks of homelessness and the attendant health and public health challenges.

We find that the hazard of experiencing homelessness is not felt uniformly across different populations. Analyzing a new dataset reporting underutilized public data of annual, nationally representative homelessness statistics, we found that between 2007 and 2017, across all types of sheltered homelessness, whether individual, family, or total, Black, American Indian or Alaska Native, and Native Hawaiian and Pacific Islander individuals and families were far more likely to experience homelessness than non-Hispanic White individuals and families. Particularly concerning about the prevalence of homelessness among these populations is the persistent and increasing nature of these disparities across the entire study period. AI/AN and NH/PI communities were disproportionately, adversely impacted by the Great Recession in 2008 [3]. The much higher rates of sheltered homelessness for Black communities during the recession and the increase in rates of homelessness for AI/AN and NH/PI populations, compounded by generational wealth inequities, likely contributed to an inability to recover after the Great Recession and long-term risks for Black and Indigenous communities. The

decrease in rates of certain groups experiencing homelessness, like in the case of AI/AN, is a welcome development, but it stands in stark relief to the more frequent instances of stagnation or increasing rates for many other groups and people.

While there are troubling signs for racial disparities in individuals experiencing homelessness, we find mixed results for rates of sheltered homelessness among Hispanic/Latino populations. There have been impressive improvements in reducing the number of individual Hispanic/Latino populations experiencing sheltered homelessness. Indeed, we find that over time, rates fell below non-Hispanic/Latino populations. Yet, Hispanic/Latino *families* continue to experience homelessness at a much higher rate than their counterparts. One critical issue regarding data challenges and access to homeless services for Hispanic/Latino families are administrative burdens and/or social construction related to immigrant status or perceived immigrant outgroup status. Complexities surrounding citizenship and immigration may contribute to fewer Hispanic/Latino communities accessing formal homeless services or experiencing homelessness or housing insecurity in less visible ways like “doubling up” [52]. This should be taken into consideration when estimating rates of homelessness and designing service programs [7, 15].

The results of our analysis highlight not only the urgent need for interventions to address homelessness, but also the *targeted* interventions for particular groups. The risks and hazards of experiencing homelessness are not uniform. Variations in need and risk should be reflected by federal and state interventions. The administration’s focus on improving infrastructure has the opportunity to expand access to affordable housing among populations most at risk of experiencing homelessness. In 2021, Under House America, the Biden administration allocated a historic 5 billion dollars to the Department of Housing and Urban Development to address housing insecurity [48]. While essential, this spending needs to be focused on the populations that most need access to these funds and housing options to reduce staggering disparities in rates of homelessness.

In addition to strengthening housing infrastructure, administrations have several policy levers at their disposal to improve housing policy. First, HUD and affiliated federal and state agencies need additional resources and tools to improve the systematic collection of data about populations and individuals that are experiencing homelessness. For too long, targeted interventions to reduce homelessness have been hampered by poor-quality, dated, or incomplete data. The federal government can create incentives for subnational governments to participate in data collection and provide infrastructure

and funding for jurisdictions to be able to carry out these policy tasks [12].

Second, the administration can address restrictive zoning laws and policies. Though many of these policies were designed nearly a century ago and blatant discrimination is now illegal, the effects of these policies persist to sustain segregation and protect housing supply for White communities at the expense of communities of color [40]. This has led to decreased supply of housing and affordable housing, as well as increasing the costs of housing and construction [11]. Reforming restrictive zoning laws and policies may have a particularly outsized influence on rates or risks of homelessness among Black communities, narrowing the Black-White gap.

Lastly, addressing homelessness requires a multi-pronged approach and a variety of public stakeholders. Homelessness policy has been held back by the governance structure, which diffuses responsibility across non-governmental service providers, local, state, and federal governments. Yet, the federal government supplies most of the funding for homelessness policy and programs. The administration can leverage those funds to incentivize policies targeting interventions for populations most at risk.

Conclusion

While homelessness is a public health problem, the hazard of experiencing homelessness is not felt uniformly across different populations. We identified persistent racial-ethnic disparities across all categories of homelessness: total rates of homelessness, individual sheltered homelessness, and family homelessness. Rates of homelessness among Black, American Indian or Alaska Native, and Native Hawaiian and Pacific Islanders were at least 2 times as great as rates of homelessness among White and Asian across the entire time period studied from 2007 to 2017 in all categories of homelessness. As homelessness is such a strong social determinant of health and a risk factor across multiple health domains, understanding homelessness deserves the same careful annual tracking and evaluation by public health stakeholders as other areas of health and health care.

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Code Availability Not applicable.

Declarations

Ethical Approval Ethical approval was not required for this study because there were no human participants in the research design.

Consent to Participate Not applicable.

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References

1. Agrawal P et al. Exposure to violence and sleep inadequacies among men and women living in a shelter setting. *Health Behav Res.* 2019;2(4). /pmc/articles/PMC8218732/ (June 3, 2022).
2. Benston EA. Housing programs for homeless individuals with mental illness: effects on housing and mental health outcomes. *Psychiatr Serv* (August). 2014.
3. Burd-Sharps S, Rasch R, Social Science Research Council. Impact of the US housing crisis on the racial wealth gap across generations. 2015. https://www.aclu.org/sites/default/files/field_document/discrimlend_final.pdf.
4. Byrne T et al. A classification model of homelessness using integrated administrative data: implications for targeting interventions to improve the housing status, health and well-being of a highly vulnerable population. *PLoS One.* 2020;15(8). /pmc/articles/PMC7446866/ (October 27, 2022).
5. Center for Antiracist Research. Racial data lab. Research. 2022. <https://www.bu.edu/antiracism-center/antiracism-research/racial-data-lab/>. Accessed 3 June 2022.
6. Chapin Hall University of Chicago. Voices Missed Opportunities: Youth Homelessness in America National Estimates. 2018. <http://voicesofyouthcount.org/wp-content/uploads/2017/11/VoYC-National-Estimates-Brief-Chapin-Hall-2017.pdf>. Accessed 7 Dec 2018.
7. Chinchilla, M. Stemming the Rise of Latino Homelessness: Lessons from Los Angeles County. 2019. <https://socialinnovation.usc.edu/wp-content/uploads/2019/02/Melissa-Chinchilla-Stemming-the-Rise-of-Homelessness.pdf>.
8. Colburn G, Clayton AP. Homelessness Is a Housing Problem How Structural Factors Explain U.S. Patterns. University of California Press. 2022. <https://homelessnesshousingproblem.com/>. Accessed 25 Apr 2022.
9. Community Solutions. Analysis on unemployment projects 40–45% increase in homelessness this year. News. 2020. <https://community.solutions/analysis-on-unemployment-projects-40-45-increase-in-homelessness-this-year/> (June 29, 2020).
10. Doran KM, Misa EJ, Shah NR. Housing as health care — New York’s boundary-crossing experiment. *New England J Med.* 2013;369(25):2374–7. <https://doi.org/10.1056/NEJMp1310121>.

11. Einstein KL, Glick DM, Palmer M. *Neighborhood Defenders: Participatory Politics and America's Housing Crisis*. Cambridge: Cambridge University Press; 2019.
12. Einstein KL, Willison CE. 2021 Menino Survey of Mayors: Mayors and America's Homelessness Crisis. 2022. <https://open.bu.edu/handle/2144/43828>. Accessed 3 June 2022.
13. Fargo JD, et al. Community-level characteristics associated with variation in rates of homelessness among families and single adults. *Am J Public Health*. 2013;103(SUPPL. 2):S340-7. <https://doi.org/10.2105/AJPH.2013.301619>.
14. Fazel S, Geddes JR, Kushel M. The health of homeless people in high-income countries: descriptive epidemiology, health consequences, and clinical and policy recommendations. *Lancet (London, England)*. 2014;384(9953):1529–40. <http://www.ncbi.nlm.nih.gov/pubmed/25390578>. Accessed 4 Apr 2018.
15. Fusaro VA, Levy HG, LukeShaefer H. Racial and ethnic disparities in the lifetime prevalence of homelessness in the United States. *Demography*. 2018;55(2119–28):2019. <https://doi.org/10.1007/s13524-018-0717-0>(January17).
16. Gambatese M, et al. Programmatic impact of 5 years of mortality surveillance of New York City homeless populations. *Am J Public Health*. 2013;103:193–8.
17. Housing and Urban Development. Part 578 — Continuum Of Care Program. Code Federal Regul. 2017. <https://www.govinfo.gov/content/pkg/CFR-2017-title24-vol3/xml/CFR-2017-title24-vol3-part578.xml>.
18. Jenkins, D. *The Bonds of Inequality: Debt and the Making of the American City*, Jenkins. University of Chicago Press, 2021. <https://press.uchicago.edu/ucp/books/book/chicago/B/bo52825170.html>.
19. Khoshkhoo NA, Schwarz AG, Puig LG, Glass C, Holtzman GS, Nsoesie EO, Gonzales Rose JB. Toward evidence-based antiracist policymaking: problems and proposals for better racial data collection and reporting. 2022. <https://www.bu.edu/antiracism-center/files/2022/06/Toward-Evidence-Based-Antiracist-Policymaking.pdf>.
20. Klasa K, et al. Continuum of care survey 2020: results and recommendations. Publications: Public Health Governance Lab. 2021. <https://www.publichealthgovernancelab.org/home/publications>. Accessed 25 Apr 2022.
21. Koh KA et al. Health care spending and use among people experiencing unstable housing in the era of accountable care organizations. *Health Affairs*. 2020;39(2): 214–23. <http://www.healthaffairs.org/doi/10.1377/hlthaff.2019.00687>. Accessed 21 May 2020.
22. Kruse K. *White Flight: Atlanta and the Making of Modern Conservatism*. Politics a: Princeton University Press; 2005.
23. Larimer ME, et al. Health care and public service use and costs before and after provision of housing for chronically homeless persons with severe alcohol problems. *JAMA*. 2009;301(13):1349–57. <https://doi.org/10.1001/jama.2009.414>.
24. Maqbool N, Viveiros J, Ault M. *The Impacts of Affordable Housing on Health: A Research Summary*. 2015. <https://www.rupco.org/wp-content/uploads/pdfs/The-Impacts-of-Affordable-Housing-on-Health-CenterforHousingPolicy-Maqbool.etal.pdf>. Accessed 29 Nov 2016.
25. Mickey R. *Paths Out of Dixie: The Democratization of Authoritarian Enclaves in America's Deep South, 1944–1972*. Princeton University Press; 2015.
26. Midboe AM, et al. The opioid epidemic in veterans who were homeless or unstably housed. *Health Affairs*. 2019;38(8). <https://www.healthaffairs-org.ezp-prod1.hul.harvard.edu/doi/pdf/10.1377%2Fhlthaff.2019.00281>. Accessed 14 Oct 2019.
27. Morton MH, Dworsky A, Matjasko JL, Curry SR, Schlueter D, Chávez R, Farrell AF. Prevalence and correlates of youth homelessness in the United States. *J Adolesc Health*. 2018;62(1):14–21. <https://doi.org/10.1016/j.jadohealth.2017.10.006>.
28. Mosites E, Morris SB, Self J, Butler JC. Practice of epidemiology data sources that enumerate people experiencing homelessness in the United States: opportunities and challenges for epidemiologic research. *Am J Epidemiol*. 2021. <https://doi.org/10.1093/aje/kwab051> (June 3, 2022).
29. National Academies of Sciences Engineering and Medicine. *Permanent Supportive Housing : Evaluating the Evidence for Improving Health Outcomes among People Experiencing Chronic Homelessness*. Washington D.C.: The National Academies Press; 2018. <https://www.nap.edu/catalog/25133/permanent-supportive-housing-evaluating-the-evidence-for-improving-health-outcomes>. Accessed 14 Jan 2020.
30. National Law Center on Homelessness and Poverty. *Homelessness in America: Overview of Data and Causes*. 2015. https://nlchp.org/wp-content/uploads/2018/10/Homeless_Stats_Fact_Sheet.pdf. Accessed 11 Jan 2017.
31. Nicholas W, Greenwell L, Henwood BF, Simon P. Using point-in-time homeless counts to monitor mortality trends among people experiencing homelessness. *Am J Public Health*. 2021;111(12):2212–22. <https://doi.org/10.2105/AJPH.2021.306502>.
32. O'Connell JJ, et al. Old and sleeping rough: elderly homeless persons on the streets of Boston. *Care Manag J*. 2004;5(2):101–6. <https://connect.springerpub.com/content>. Accessed 3 June 2022.
33. Padgett DK, Henwood BF, Tsemberis SJ. *Housing First: Ending Homelessness, Transforming Systems, and Changing Lives*. Oxford University Press; 2015. <https://oxford.universitypressscholarship.com/view/10.1093/acprof:oso/9780199989805.001.0001/acprof-9780199989805>. Accessed 15 Feb 2021.
34. Palepu A, et al. Housing first improves residential stability in homeless adults with concurrent substance dependence and mental disorders. *Am J Public Health*. 2013;103(SUPPL. 2):e30-6.
35. Peterson R, et al. Identifying homelessness among veterans using VA administrative data: opportunities to expand detection criteria. *PLoS One*. 2015;10(7):e0132664.
36. Roncarati JS et al. Mortality among unsheltered homeless adults in Boston, Massachusetts, 2000–2009. *JAMA Intern Med*. 2018;178(9):1242–48. <http://www.ncbi.nlm.nih.gov/pubmed/30073282>. Accessed 30 June 2020.
37. Smith A. Can we compare homelessness across the Atlantic? A comparative study of methods for measuring homelessness in North America and Europe. *Eur J Homelessness*. 2015;9(2): 233–57. <https://www.feantsaresearch.org/download/smithejh2-2015article10329781340955549685.pdf>.
38. Stringfellow EJ et al. Substance use among persons with homeless experience in primary care. *Subst Abuse*. 2016;37(4):534–41. <https://www.tandfonline.com/doi/full/10.1080/08897077.2016.1145616>. Accessed 7 Mar 2018.
39. Trounstine J. *Segregation by Design: Local Politics and Inequality in American Cities*. Cambridge: Cambridge University Press; 2018.
40. Trounstine J. The geography of inequality: how land use regulation produces segregation. *Am Political Sci Rev*. 2020;114(2):443–55. https://www.cambridge.org/core/product/identifier/S0003055419000844/type/journal_article. Accessed 6 Jul 2020.
41. Tsai J, Wilson M. COVID-19: A potential public health problem for homeless populations. *The Lancet. Public Health*.

- 2020;5(4):e186–87. <http://www.ncbi.nlm.nih.gov/pubmed/32171054>. Accessed 21 May 2020.
42. U.S. Census Bureau. National Intercensal Tables: 2000–2010. Data. 2021. <https://www.census.gov/data/tables/time-series/demo/popest/intercensal-2000-2010-national.html>. Accessed 2 Nov 2022.
 43. U.S. Census Bureau. National Population by Characteristics: 2010–2019. Data. 2022. <https://www.census.gov/data/tables/time-series/demo/popest/2010s-national-detail.html>. Accessed 2 Nov 2022.
 44. U.S. Department of Health and Human Services Assistant Secretary for Planning and Evaluation, and Office of Disability Aging and Long-Term Care Policy. Medicaid and Permanent Supportive Housing for Chronically Homeless Individuals: Emerging Practices from the Field. 2014. <http://aspe.hhs.gov/daltcp/reports/2014/EmergPrac.pdf>.
 45. U.S. Department of Housing and Urban Development. 2017 AHAR: Part 2 - Estimates of Homelessness in the U.S. - HUD Exchange. 2018. <https://www.hudexchange.info/resource/5769/2017-ahar-part-2-estimates-of-homelessness-in-the-us/>; <https://www.huduser.gov/portal/sites/default/files/pdf/2017-AHAR-Part-2.pdf>
 46. U.S. Department of Housing and Urban Development. The 2020 Annual Homeless Assessment Report (AHAR) to Congress. 2021. <https://www.huduser.gov/portal/sites/default/files/pdf/2020-AHAR-Part-1.pdf>. Accessed 19 Apr 2021.
 47. U.S. Department of Housing and Urban Development. AHAR Reports. Homeless Assistance Progrms. 2022. <https://www.hudexchange.info/homelessness-assistance/ahar/#2017-reports>.
 48. U.S. Department of Housing and Urban Development Office of Policy Development and Research. House America. House America. 2021. https://www.hud.gov/house_america. Accessed 21 Oct 2021.
 49. United States Department of Housing and Urban Development. 2018 AHAR: Part 2 - Estimates of Homelessness in the U.S. HUD Exchange. 2018. <https://www.hudexchange.info/resource/6161/2018-ahar-part-2-estimates-of-homelessness-in-the-us/>. Accessed 27 Oct 2022.
 50. United States Department of Housing and Urban Development. The 2016 Annual Homeless Assessment Report (AHAR) to Congress: Part 2 – Estimates of Homelessness in the United States, Data Collection and Analysis Methodology. 2017. <https://www.huduser.gov/portal/sites/default/files/pdf/2016-AHAR-Part-2.pdf>
 51. United States Department of Housing and Urban Development. PIT and HIC data since 2007. HUD Exchange. 2017. <https://www.hudexchange.info/resource/3031/pit-and-hic-data-since-2007/>. Accessed 30 Dec 2017.
 52. Vacha EF, Marin MV. Doubling up: low income households sheltering the hidden homeless. *J Sociol Social Welf*. 1993;20. <https://heinonline.org/HOL/Page?handle=hein.journals/jrlsasw20&id=411&div=&collection>. Accessed 27 Oct 2022.
 53. Willison CE, Lillvis D, Mauri A, Singer PM. Technically accessible, practically ineligible: the effects of Medicaid expansion implementation on chronic homelessness. *J Health Politics, Policy Law*. 2021.
 54. Willison CE, Mauri AI. Urban homelessness policy in OECD nations. *Oxford Res Encycl Global Public Health*. 2021.
 55. Willison CE. Ungoverned and Out of Sight: Public Health and the Political Crisis of Homelessness in the United States. New York and London: Oxford University Press; 2021. <https://global.oup.com/academic/product/ungoverned-and-out-of-sight-9780197548325?cc=us&lang=en&#>.
 56. Young MG, Manion K. Harm reduction through housing first: an assessment of the emergency warming centre in Inuvik, Canada. *Harm Reduction J*. 2017;14(1):8. <http://harmreductionjournal.biomedcentral.com/articles/10.1186/s12954-016-0128-8>. Accessed 1 Nov 2018.
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